PRELIMINARY ECONOMIC ASSESSMENT, NI 43-101 TECHNICAL REPORT

Lac Virot DR–Grade Iron Ore Project, Newfoundland and Labrador, Canada

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Forward Looking Information

This Technical Report contains certain forward-looking information and forward-looking statements within the meaning of applicable securities legislation and may include future-oriented financial information (collectively, forward-looking Information). Forward-looking information in this Technical Report includes, but is not limited to, statements regarding plans and expectations for the “Lac Virot DR Grade Iron Ore Project”, including estimated mine life, mining costs and production rates; estimates of Mineral Resources and the conversation of Mineral Resources to Mineral Reserves; projected metallurgical recoveries; and anticipated environmental liabilities. Forward-looking information can be identified by the use of words such as “will,” “expect,” “achieve,” “product,” “increase,” “plan,” “potential,” “intend,” “anticipate,” “expect,” “estimate,” “target,” “objective” and similar expressions and phrases or statements that certain actions, events or results “may,” “could,” or “should” occur, or the negative connotation of such terms. The material factors or assumptions regarding forward-looking information contained in this Technical Report are discussed in this report, where applicable. Forward-looking information is subject to known and unknown risks, uncertainties and other factors that may cause actual results and developments to differ materially from those expressed or implied by such forward-looking information. Relevant risks and other factors include, without limitation: fluctuations in DR Grade Iron Ore prices; fluctuations in prices for energy inputs, labour, materials, supplies and services; fluctuations in currency markets; operational risks and hazards inherent with the business of mining (including environmental accidents and hazards, industrial accidents, geotechnical incidents, equipment breakdown, unusual or unexpected geological or structural formations, cave-ins, flooding, fire and severe weather); inadequate insurance, or inability to obtain insurance to cover these risks and hazards; employee relations; relationships with, and claims by, local communities and indigenous populations; the ability to maintain existing or obtain all necessary permits, licenses and regulatory approvals in a timely manner or at all; changes in laws, regulations and government practices, including environmental and export and import laws and regulations; legal restrictions relating to mining; and risks relating to expropriation; increased competition in the mining industry. Forward-looking information is designed to help readers understand views as of that time with respect to future events and speaks only as of the date it is made. All the forward-looking information in this Technical Report is qualified by these cautionary statements. Except as required by applicable law, Red Paramount Iron Ltd. and the Qualified Persons who authored this Technical Report assume no obligation to update publicly or otherwise revise any forward-looking information in this Technical Report, whether because of new information or future events or otherwise.

TABLES

FIGURES

ABBREVIATIONS, ACRONYMS, AND UNITS OF MEASURE

$	Canadian dollar
%	percent
"	inch
'	minute
°	degree
°C	degree Celsius
µm	micron (10−6 m)
3-D	three-dimensional
ϕ	friction angle
a	annum
AGG	airborne gravity gradiometric
BF/BOF	blast furnace and basic oxygen furnace
BWI	Bond ball mill grindability testing
CBAM	Carbon Border Adjustment Mechanism
CIM	Canadian Institute of Mining
CIM Definition Standards	*CIM Definition Standards for Mineral Resources & Mineral Reserves*
cm	centimetre
Company, the	Red Paramount Iron Ltd.
d	day
dmt	dry metric tonne
DFS	definitive feasibility study
DR	direct reduction
DRI/EAF	direct reduced iron and electric arc furnace
E	east
EPCM	Engineering, Procurement and Construction Management
ESG	Environmental, Social, and Governance
FTSF	Filter Tailings Storage Facility
g	gram
g/t	grams per tonne
Gt	billion tonnes
G&A	general and administrative
Ga	Billion years
GPS	Global Positioning System
GSC	Geological Survey of Canada
GVMS	Gross Value of Mineral Shipments
h	hour
ha	hectare
HG	high-grade
HPGR	High Pressure grinding Rolls
ID^2	inverse distance squared
IET	Industry, Energy and Technology
IMS	intermediate magnetic separation
IOC	Iron Ore Company of Canada
IRR	internal rate of return
ITUM	Innu Takuaikan Uashat mak Mani-Utenam
kg	kilograms

km	kilometers
kt	kilotonne
kV	kilovolt
kWh	kilowatt hour
L	litre
LG	low-grade
LIL	Labrador–Island Transmission Link
LIMS	Cobber Laboratory Information Management System
LIORC	Labrador Iron Ore Royalty Corporation
LM&E	Labrador Mining and Exploration Company Limited
LOI	loss on ignition
LOM	life-of-mine
LSTIF	Lake Superior-type iron formation
M	million
m	meters
m^3	cubic metres
Ma	million years
MG	for medium grade
mm	millimeter
MPH	MPH Consulting Limited
MRC	manganese reduction circuits
Mt	million tonnes
MW	megawatt
N	north
NAD	North American Datum
Nalco	Newfoundland and Labrador Corporation
Nalcor	Nalcor Energy
New Dawn	Tshash Petapen
NI	National Instrument
NIMLJ	La Nation Innu Matimekush-Lac John
NPV	net present value
NSR	net smelter return
NTS	National Topographic System
P_{80}	80% passing
PAG	potentially acid generating
PEA	preliminary economic assessment
PFS	pre-feasibility study
ppm	parts per million
QA/QC	quality assurance and quality control
QNS&L	Québec North Shore & Labrador Railway
QP	qualified person
RAP	Resource Assessment Program
Red Paramount	Red Paramount Iron Ltd.
Ridgemont	Ridgemont Iron Ore Corp.
Rio Tinto	Rio Tinto Exploration Canada Inc.
ROM	run-of-mine
RQD	rock quality designation
S	south

Satmagan	saturation magnetic analysis
SG	specific gravity
SGS Lakefield	SGS Minerals Services Lakefield Facility
SGS	SGS Canada Inc. Geological Services
t	tonne
US$	United States dollar
UTM	Universal Transverse Mercator
VLF-EM	very low frequency electromagnetic
W	west
XRF	X-ray fluorescence

1 SUMMARY

1.1 Introduction

This report was prepared and compiled by Sedgman at the request of Red Paramount Iron Ltd. (Red Paramount or the Company). The purpose of this report was to conduct a preliminary economic assessment (PEA) of a potential mining operation at the Lac Virot site to produce the direct reduction (DR) iron concentrate. The work involved reviews of past similar studies and projects and was supported with specific metallurgical testwork on Lac Virot samples. Red Paramount appointed SGS to perform the testwork.

1.2 Property Description and Location

In 2020, Red Paramount was established following the acquisition of all issued and outstanding common shares of Ridgemont Iron Ore Corp. (Ridgemont), a private Canadian company with 100% interests in the Lac Virot Property. Upon completion of the acquisition, Ridgemont Ore Corp. was renamed Red Paramount Iron Ltd., inheriting all rights and obligations associated with the Lac Virot Property.

The combined mineral rights of the property encompass 521 claims, covering an area of 13,025 ha (130.25 km^2) in the Labrador West region of Labrador, some 12 km west of the Town of Labrador City. Currently, all mineral licenses are in good standing.

1.3 Accessibility, Local Resources, and Infrastructure

The Lac Virot Project is in Newfoundland and Labrador, a globally recognized top ten mining jurisdiction known for its stability and abundant resources, creating an ideal setting for mining operations. The project is near Labrador City and Wabush, collectively known as Labrador West, with a combined population of over 9,000. These towns were established in the 1960s to support mining operations and offer modern housing, educational institutions, medical facilities, recreational amenities, and shopping centers, ensuring a high quality of life for project personnel. Additionally, the region has a long history of mining, contributing to a highly skilled workforce, with 36% of the local labour pool engaged in mining-related trades. Industrial supplies and services for mining and exploration activities are also readily available.

The region boasts over $3 billion worth of infrastructure, including the Québec North Shore & Labrador Railway (QNS&L), which connects Labrador West to the deep-water port at Sept-Îles, Québec, on the north shore of the St. Lawrence River. This railway–port linkage supports the seamless export of iron ore to global markets. Additionally, Wabush Airport, just 10 km from the Project, serves as the only airport in western Labrador, providing commercial air services to support personnel and logistics.

The project's proximity to existing mining operations further strengthens its development potential. Within a 30 km radius of the Lac Virot Project, mines operated by companies such as the Iron Ore Company of Canada, ArcelorMittal, and Tacora Resources produce more than 90% of Canada's iron ore. These operations have fostered a strong mining heritage in the area, contributing to the region's economic resilience and readiness to support new mining projects.

Power and water resources are also significant advantages. The region currently receives hydroelectric power from the Churchill Falls development. The availability of additional electric power on the existing infrastructure is limited, but strategic investments by the governments of Newfoundland and Labrador and Québec are underway to expand clean energy infrastructure, including a 735-kV transmission upgrade, will improve availability and the reliability of energy supply for Labrador West's mining sector. On-site, freshwater sources are abundant and easily accessible, ensuring sufficient water supply for mining and processing activities

1.4 History of the Iron Ore District

Iron ore mining has a long history of continuous production, from 1895 to the present, in Newfoundland and Labrador. Serious interest in the iron ore deposits of Labrador West began in the mid 1940s, which saw a monumental increase in the iron market as Europe and Asia rebuilt its cities and industries after World War II, and nations re-armed for the Cold War. However, the strong post-war demand revealed a world iron ore shortage which stimulated the worldwide search for new sources of ore. These exploration efforts eventually uncovered vast quantities of highly competitive ores in Labrador, Brazil and Australia. Development of these and other deposits from the 1950s onward signaled the gradual demise of lower quality or otherwise compromised Fe ores.

The Labrador Mining and Exploration Company Limited (LM&E) was formed in 1936 to explore and develop a large (>50,000 m^2) mineral rights concession that covered most of the western Labrador section of the iron ore district known as the Labrador Trough. By 1949, LM&E had developed sufficient reserves of high-grade direct-shipping iron ore at Knob Lake to justify development. The partners joined forces with a group of U.S. steelmakers and the Iron Ore Company of Canada (IOC) was formed. A major project constructed the mine, townsite (Schefferville, QC), and railway, achieving the first shipment of iron ore moved south to the St. Lawrence River in 1954.

In 1951, Joseph R. Smallwood, Premier of the Province of Newfoundland, created the Newfoundland and Labrador Corporation (Nalco) to stimulate development of the province's natural resources. In 1953, Nalco became a subsidiary of Canadian Javelin Limited. The Nalco–Javelin connection would lead to the Wabush Mines operations and also to the Julienne Lake iron deposit.

Wabush Mines began mining at the Scully Mine in Labrador in 1965 and operates a mine and concentrating plant at Wabush, with a concentrate production capacity of 5.5 Mt/a, together with a pellet plant and shipping facilities in Point Noire, Québec. Wabush Mines is owned by Tacora Resources.

By the late 1950s, IOC had a renewed interest in its Wabush Lake area iron deposits. Its Labrador City area mine known as the Carol Project began operation in 1962 and has produced more than one billion tonnes of crude ore with an average iron content of 39%. Annual capacity at the Carol Concentrator is 17 Mt of iron ore concentrate, of which 13 Mt can be pelletized and the balance processed into various grades of concentrate products. Production capacity is being expanded to 23 Mt/a. Operations at IOC's Schefferville, QC site continued until 1982, when the mine was closed.

The ownership of IOC is Rio Tinto Exploration Canada Inc. (Rio Tinto) (58.7%), Mitsubishi Corporation (26.2%), and the Labrador Iron Ore Royalty Income Fund (15.1%). IOC operates within the Rio Tinto Iron Ore group and maintains its head office in Montréal, Québec.

1.5 Regional Geology Setting

According to Gross, 2009, the Lac Virot property features Lake Superior-type iron formation (LSTIF) occurrences within the Labrador Trough, also known as the Labrador–Québec Fold Belt. These formations are part of the Lower Proterozoic (Aphebian) Knob Lake Group's Sokoman Formation, which extends over 1,000 km along the eastern margin of the Archean Superior-Ungava craton.

The region's oldest rocks belong to the Archean Ashuanapi Metamorphic Complex, comprising migmatites and gneisses. Although re-deformed and re-metamorphosed during the Grenville Orogeny and situated within the Grenville Province of the Canadian Shield, this complex is part of the Superior/Ungava Craton's extensive stratigraphic assemblage, forming the basement beneath the predominantly sedimentary lithologies of the Labrador Trough.

The Knob Lake Group encompasses the Lower Proterozoic platformal sedimentary and related rocks of the Labrador Trough. Previously referred to as the Gagnon Group within the Grenville Province portion, the Knob Lake Group has been redefined to include stratigraphic sections on both sides of the Grenville Front.

In southwestern Labrador, the northern margin of the Grenville Province is interpreted as a 20–30 km-wide ductile fold and thrust belt. This area represents the boundary zone of a collisional orogen, where older rocks from the Superior and Churchill Provinces, along with Lower Proterozoic sediments of the Labrador Trough, form a parautochthonous belt of various thrust sheets known as the Gagnon terrane.

Within the Wabush Lake region, the Sokoman Formation conformably overlies the Wishart Formation on the west side of Wabush Lake and Julienne Peninsula; elsewhere, it rests upon the Attikamagen Formation. Dominant lithologies include silicate-carbonate and oxide iron formations. Notably, iron formation outcrops exhibit significant leaching around Goethite Bay, Julienne Lake, and, to a lesser extent, the Julienne Peninsula.

The Menihek Formation, the youngest sequence of the Knob Lake Group in the Wabush Lake area, comprises dark grey quartz-feldspar-biotite-graphite schist with well-developed schistosity and distinctive graphite porphyroblasts.

1.6 Property Geology and Mineralization

The Lac Virot Property is predominantly underlain by basement rocks of the Ashuanipi Metamorphic Complex in its northern and western sectors. These include quartzo-feldspathic migmatites, gneisses, and granitoid rocks, representing reworked Archean Superior Province units.

To the east, the Wishart Formation of the Knob Lake Group has been mapped, with quartzite exposures observed in structurally complex areas around Emma and O’Brien Lakes. The primary unit of interest for iron ore exploration is the Sokoman Formation, which is widespread throughout the property, as documented by previous exploration, government, and academic studies.

Mineralogically, the Sokoman Formation consists mainly of quartz and iron-bearing minerals, primarily magnetite (Fe_3O_4), with lesser amounts of hematite (Fe_2O_3), specularite, and goethite ($Fe_2O_3 \cdot H_2O$). Some iron is also present in silicates like amphiboles (grunerite) and carbonates like ankerite. The most economically significant units are massive or banded quartz-magnetite-specular hematite schists, typically containing around 50% silica and 50% iron minerals.

Lean iron formations, containing over 65% quartz and less than 20% total iron, are also present. In the Emma Lake sector, the Sokoman Formation includes quartz-grunerite schist or gneiss, as described by early studies, with grunerite occurring in a range of colours and textures, often interbedded with quartz and containing disseminated magnetite and occasional carbonate bands.

The Sokoman Formation is stratigraphically overlain by the Menihik Formation, which consists of garnet-biotite-graphite schists. The Emma Lake area shows extensive thrusting, making structural features more visible compared to other parts of the property.

1.7 Deposit Types

Sedimentary iron deposits are classified into four types: Superior (Lake Superior) Type, Algoma Type, Clinton Type, and Minette Type. In Canada, iron ore production predominantly comes from Superior-type deposits, especially in the Labrador West–Fermont region of Newfoundland and Labrador and Québec. The Lac Virot Property, near Labrador City and Wabush, is a Superior-type iron ore prospect. Its geology is characterized by the Sokoman Formation within the Grenville Province, an area known for tectono-metamorphic events that have influenced the formation and quality of iron deposits.

The Sokoman Formation is a significant geological unit within the Labrador Trough, hosting extensive iron formations that have been a major source of iron ore in Canada. The Labrador Trough itself is a Proterozoic fold belt rich in iron formations, extending for about 1,100 km through Québec and Labrador. The Superior-type iron formations in this region are typically oxide-facies, formed as chemical sediments in shallow marine environments. In the Labrador City mining camp, these Proterozoic iron formations were refolded and metamorphosed during the Grenvillian orogeny, resulting in coarser grain sizes that facilitate easier beneficiation.

1.8 Historical Exploration

The Newfoundland and Labrador Department of Mines and Energy reported on three pre-1985 holes drilled on the Property. It remains to be seen if logs, analyses, or certificates for these holes have been retained by the provincial government.

IOC undertook a resource assessment program in its holdings, which included the Red Paramount area, in 2000–2001. This study included an interpretation of geological structure and reviews of magnetic and gravity surveys.

MPH Consulting Limited (MPH) performed a helicopter-borne high resolution magnetic, radiometric and very low frequency electromagnetic (VLF-EM) survey in 2011 on behalf of Ridgemont Iron Corp, followed by geological mapping and prospecting.

In 2012, Ridgemont Iron Corp., engaged consultants to gather detailed geological data through airborne surveys and an extensive drilling program totaling nearly 12,000 m in 42 holes. These activities aimed to better understand the Project's subsurface features and mineral potential. Key milestones included:

- Airborne gravity gradiometric (AGG) (May 2012): Fugro conducted a gravity survey to detect subtle density variations in the subsurface. This helped identify structural features and areas of interest for potential mineralization.
- Horizontal aero-magnetic gradient & XDS VLF-EM Survey (October 2012): Terraquest completed an airborne magnetic survey, incorporating horizontal gradient measurements and electromagnetic data. These methods were used to map magnetic anomalies and conductive zones, which are often associated with mineral deposits.
- Drilling program (June to October 2012): A comprehensive drilling campaign was carried out over four months, with 11,713 m of core drilling completed. Significant mineralized intervals were intercepted and the drilling provided valuable geological and structural data to confirm and refine targets identified during the surveys.

1.9 Mineral Processing and Metallurgical Testing

The Lac Virot deposit has undergone multiple metallurgical testing campaigns at SGS Canada, an independent laboratory. The first campaign included grab samples from surface outcrops and drill-core samples, while the second campaign utilized drill-core composites representing low-, medium-, and high-grade based on magnetic iron content. Samples were received for characterization and evaluation of their metallurgical performance including comminution, magnetic separation, gravity separation, flotation, and solid-liquid separation testing.

In the first campaign chemical analysis of the samples found them to be very similar, with iron content ranging from 30.4% Fe in the Core sample to 31.3% Fe in the Surface sample, and the silica content ranging from 44.2% SiO_2 in the Core sample to 47.4% SiO_2 in the Surface sample. Both samples have low sulphur content, at less than 0.02% S. The amount of magnetically recoverable iron as determined by saturation magnetic analysis was slightly higher in the Core sample, at 80.2%, than the 72.2% observed for the Surface sample. For the second campaign, samples were selected for metallurgical testwork, representing expected magnetic iron content of 19.6% for low-grade (LG), 21.4% for medium grade (MG), and 27.1% for high-grade (HG).

Bond ball mill grindability testing (BWI) completed in both campaigns measured a consistent BWI of 7.7 kWh/t, which is qualified as "very soft," corresponding to the 3rd percentile of the SGS database. The material was found to be moderately abrasive, with an abrasion index value of 0.317 g.

A beneficiation flowsheet including a Cobber Laboratory Information Management System (LIMS) stage at P_{100} passing (P_{100}) 1.7 mm, a two-stage rougher LIMS at P_{80} 150–180 µm, a three-stage finisher LIMS at P_{80} 45–60 µm showed the recovery of magnetic iron is over 92.5% for three composites. For total iron, the recovery is approximately 80% for both MG and HG. However, only a 62% recovery was observed for LG, as the total iron recovery (loss) is about 31% for Cobber N-Mags. The silica content in the Finisher Mags ranged from 2.24 for HG to 3.62 % for MG.

The addition of reverse flotation to separate silica found that final concentrates concentrate assayed 72.1% to 72.4% Fe, 0.19% to 0.32% SiO_2, and <0.01% S, and had a Blaine specific surface value of 851–1,382 cm^2/g.

The proposed flowsheet should be evaluated at larger scale to confirm the feed sizes to the cobber, rougher, and cleaned magnetic separation stages, and the number of magnetic separators to include in the wet LIMS stages.

1.10 Mineral Resource Estimate

SGS completed a Mineral Resource estimate for the Lac Virot deposit at the Lac Virot Iron project.

The Lac Virot Mineral Resource estimate as of February 7, 2025, incorporates drilling data from holes completed by the previous owner of the 2012 drilling campaign, which in the Qualified Person's (QP) opinion were collected in accordance with The Canadian Institute of Mining, Metallurgy and Petroleum's (CIM) *Exploration Best Practices Guidelines* (CIM, 2018).

The Mineral Resource was estimated using the CIM (2019) *CIM Estimation of Mineral Resources & Mineral Reserves Best Practice Guidelines*, and classified in accordance with the *CIM Definition Standards for Mineral Resources & Mineral Reserves* (Definition Standards) (CIM, 2019). It should be noted that Mineral Resources are not Mineral Reserves and do not have demonstrated economic viability.

The Mineral Resource estimate was conducted using SGS three-dimensional (3-D) modelling and Genesis block modelling proprietary software, together with Microsoft Excel. The Mineral Resource estimation was carried out by the QP Mr. Maxime Dupéré of SGS Geological Services an independent mining and geological consulting branch of SGS Canada Inc.

The drill-hole data were provided in Microsoft Excel files that were extracted from a Microsoft Access database managed by Red Paramount. The principal sources of information used for the Mineral Resource estimate are exploration drilling programs conducted by the previous owner (Ridgemont) during the 2012 drilling campaign.

A total of 43 holes were drilled. The cut-off date for inclusion of drill-hole data into this estimate is December 3, 2012, at which time there was no outstanding information for Lac Virot as the drilling was completed in 2012.

In all 2,307.50 m of drill-hole samples were assayed for all zones. The North (1,070.40 m) and the South (584.60 m) are the ones most sampled. Sample lengths vary from 0.05 to 10.00 m in North Zone and 0.80 to 3.90 m in South Zone with the dominant sample length being 2.6 m for both areas.

Datamine was first used to generate three-dimensional volumes and surfaces representing the mineralized zones. SGS used Genesis Software to update the South and North zones.

Red Paramount provided a topographic survey consisting of a topographic surface (3DFace) in DXF format. The surveyed drill-hole collars correspond well with the mapped topographic surface.

The modelling procedure examined the continuity of iron (%) grades along strike and down-dip to generate mineralized wireframes. A modelling cut-off of 15% was used as a base. There are areas where low-grade iron is present. These areas with low grade iron were taken out of modeling mostly as external waste zones and do not part of the mineralized solids. However, waste intervals of less than 6 m were considered in the model as internal waste. The assay results within internal waste intervals were kept and taken into account during estimation. The use of the threshold resulted in generally continuous zones that form a suitable framework for block-model grade estimation. The modelled zones (areas/solids/envelopes) were individually coded into the drill-hole data, and volumes were generated using Datamine and Genesis software. Where necessary, manual edits were incorporated to provide for geologically realistic shapes.

The modelling resulted in fourteen individual mineralized zones. Mineralized intervals consisting of the top and bottom intersects of mineralized assay data following the modelling parameters were created for all mineralized zones. The mineralized intervals are within the shapes of the solids and reflect the economic potential of profitable mining of each selected drill hole.

Samples were composited to 3 m long based the dominant sample interval, size of the deposit, and block model parameters. Each set of composited data was restrained to each 3-D solid. Compositing was carried out inside the mineralized 3-D solids and within mineralized intervals. Statistics were analyzed for Al_2O_3(%), CaO(%), Cr_2O_3(%), Fe_2O_3(%) (Fe %, derived), Fe_3O_4(Sat) (%), FeO(titration) (%), K_2O (%), loss on iginition (LOI) (%), MagnFe(%), MgO(%), MnO(%), (Mn % derived), Na_2O(%), P_2O_5(%), SiO_2(%), TiO_2(%), V_2O_5(%).

Block models were generated for each project using 25 by 25 m blocks in the X (easting) and Y (northing) direction, and 10 m blocks in the Z (elevation) direction. The block model was not rotated. A block fraction was applied to each block. Blocks were assigned a volume percentage corresponding to the proportion of blocks within each 3-D solid. In fact, a block fraction (between 0 [i.e., 0%] and 1 ([i.e., 100%]) was applied to each block.

The selected grades for each mineralized zone within the deposit was interpolated into blocks by the inverse distance squared (ID^2) estimation method. Search ellipses for the mineral domains were interpreted based on drill-hole (data) spacing, orientation, and size of the resource wireframe models (Table 14-6). The search ellipse axes were interpolated and applied to each block of the block model. These variable ellipse axes (azimuth, dip, spin) were applied based on the relative orientation of the different mineralized solids and the observed trend of the mineralization down dip or down plunge (Figure 14-8).

Grades were interpolated into blocks using a minimum and maximum number of composites based on available data in each mineral domain, to generate block grades during Passes 1, 2, and 3. During Pass 1, a minimum of five and a maximum of 15 composite samples per drill hole, and a maximum of three composites per drill hole, were used to generate block grades totalling 16,998 blocks estimated (32.1%). For Pass 2, the same parameters were used, except the search ellipse was set at twice the size of the first pass, totalling 27,910 blocks estimated (52.6%). For Pass 3, a minimum of three and a maximum of 15 composite samples per drill hole (no minimum drill holes to use) were needed to generate block grades for totalling 8,115 estimated blocks (15.3%). Note that for the for Pass 3 for Zones 3 and 10, a minimum of two samples was set as the estimation parameter. Note also that for Pass 3 for Zone 4, a minimum of one sample was set as the estimation parameter. A fixed density of 3.5 was set for all Lac Virot deposits as per findings presented in Section 14.2.1.

All the Mineral Resources were classified as Inferred, as the confidence for the estimates is low. The drill holes are sparse, and local estimates cannot be reliably made.

The Mineral Resource is reported as Inferred as shown in Table 1-1. The Mineral Resource estimation was guided by CIM's (2019) *Estimation of Mineral Resources and Mineral Reserves Best Practice Guidelines* and is reported in accordance with the *CIM Definition Standards for Mineral Resources* (CIM, 2014), which have been incorporated by reference into National Instrument 43-101 *Standards of Disclosure for Mineral Projects* (NI 43-101).

In the QP's opinion, the Mineral Resources reported herein at the selected cut-off grade have "reasonable prospects for eventual economic extraction," taking into consideration mining and processing assumptions (refer to Section 14.13). The Mineral Resource was reported from within an optimized pit shell done in Genesis software V.2.2.22.

Table 1-1: Lac Virot Inferred Mineral Resource above 15% Fe Cut-Off Grade—February 7, 2025

Name	Fe (%)	FeO (%)	SiO_2 (%)	P_2O_5 (%)	MnO (%)	MagFeSat (%)	Volume (Mm^3)	Tonnes (M)
All Combined South, Middle & North Pits	23.33	19.61	42.40	0.04	1.22	10.85	141.5	495.2
North Pit	23.016	21.34	41.26	0.04	1.16	9.61	90.9	318.0
Middle Pits	20.88	16.90	45.33	0.04	1.10	10.05	17.5	61.1
South Pit	25.10	16.30	44.36	0.03	1.46	14.69	33.0	115.4

Notes:

- A fixed density of 3.5 t/m^3 was used to estimate the tonnage from block model volumes.
- Mineral Resources are constrained by the pit shell and the topography of the overburden layer.
- The results from the pit optimization are used solely for the purpose of testing the "reasonable prospects for economic extraction" by an open pit and do not represent an attempt to estimate Mineral Reserves. There are no Mineral Reserves on the Property. The results are used as a guide to assist in the preparation of a Mineral Resource statement and to select an appropriate Mineral Resource reporting cut-off grade.
- Mineral Resources, which are not Mineral Reserves, do not have demonstrated economic viability. An Inferred Mineral Resource has a lower level of confidence than that applying to a Measured and Indicated Mineral Resources, and must not be converted to a Mineral Reserve. It is reasonably expected that the majority of Inferred Mineral Resources could be upgraded to Indicated Mineral Resources with continued exploration.
- All figures are rounded to reflect the relative accuracy of the estimate, and numbers may not add due to rounding.
- Effective date February 16, 2025.
- The Mineral Resource estimates may be materially affected by environmental, permitting, legal, title, taxation, socio-political, marketing or other relevant issues.
- Based on a cut-off grade of 15% Fe.
- Resources are constrained within Red Paramount mineral rights.
- The pit optimization and base case cut-off grade of 15% Fe considers a pricing of US$120/t of concentrate at 67.5% Fe (US$160.80/t of concentrate at 67.5%); combined rock processing (US$5.21/t concentrate corresponding to US$1.61/t milled); transportation (US$23.75/t concentrate corresponding to US$7.35/t milled) and General & Administrative cost (US$3.75/t concentrate corresponding to US$1.16/t milled)—totalling US$13.13/t milled of mineralized material; open pit mining cost of US$3.00/t mined of mineralized material; an average pit slope of 45° for fresh rock, 20° for overburden; and an average mining recovery of 95%, processing recovery of 80% and dilution of 5%, and a waste density of 2.9.

1.11 Mineral Reserve Estimate

There have been no Mineral Reserve estimates stated for this Property, and this Technical Report offers none.

1.12 Mining Methods

The mining method selected for the Lac Virot Project consists of a conventional open pit, truck and shovel, drill and blast operation. Vegetation and topsoil will be stripped and stockpiled for future reclamation use. Overburden will then be stripped and hauled to designated waste dumps. The mineralized material and waste rock will be mined with 10 m-high benches, drilled, blasted, and loaded into a fleet of haul trucks using diesel hydraulic shovels. The mineralized material will be hauled to the primary crushing facility, while waste rock will be transported either to the waste dumps or used as construction material at the tailings facility. The haul truck selected for the Project has a nominal payload of 220 tonnes, and the hydraulic shovel has a bucket capacity of 34 m³.

The Lac Virot Project follows a phased development strategy, initially processing 2.5 Mt/a of dry concentrate, with plans for expansion based on market demand. With an expected mine life of 27 years, total material movement is projected to reach 30 Mt/a by Year 12. The project consists of four distinct open pits, each mined as a single phase. The extracted material is hauled to a centrally located crusher to optimize logistics and minimize haul distances. The primary mining fleet includes 34 m³ hydraulic shovels, 220-tonne haul trucks, front-end loaders, graders, water trucks, drills, and dozers. Mining activities ramp up from 7 Mt/a in Year -1 to 20 Mt/a in Year 1, with continued scaling. The project maintains an average strip ratio of 1.4 over its lifetime, with variations across different pits.

Table 1-2: Pit Details

Pit	Mined Material (kt)	Fe (%)	FeO (%)	P_2O_5 (%)	Waste (kt)	Total (kt)	Strip Ratio (W:O)
1	15,223	23.59	21.16	0.02	14,757	29,980	0.97
2	61,627	23.29	21.13	0.03	77,216	138,843	1.25
3	78,454	24.92	16.07	0.03	95,645	174,099	1.22
4	71,980	24.78	22.18	0.05	130,697	202,677	1.82
Total	**227,283**	**24.35**	**19.72**	**0.04**	**318,315**	**545,598**	**1.40**

Pit optimization using GEOVIA Whittle software has identified the most economically viable resources to be mined. Open pit designs and pushbacks have been completed for each of the four pits based on optimization results. Haul roads are designed for two-lane traffic to accommodate 220-tonne trucks, ensuring efficient material transport. Precision blasting is achieved using emulsion explosives with electronic detonation to minimize dilution. Mine dewatering systems include pit drainage, sedimentation ponds, and continuous monitoring to mitigate water-related risks.

Environmental sustainability remains a key priority, with designated waste rock storage areas positioned to minimize haul distances. Water management strategies incorporate runoff controls, sedimentation ponds, and compensatory discharge into watersheds. Additionally, stripped topsoil is stockpiled for future reclamation to restore the land post-mining. Waste rock generated throughout the Project is categorized as non-acid generating, mitigating potential environmental risks.

1.13 Recovery Methods

Lac Virot deposit consists mainly of quartz and iron-bearing minerals, primarily magnetite; some iron is also present as carbonates with lesser amounts of hematite. Magnetic iron values in the Lac Virot deposit is recoverable by a series of magnetic separation processes. The preferred process flowsheet selected for recovering iron values was derived from the testwork results and tailored to support the production profile over the life-of-mine (LOM).

The Lac Virot process plant will treat 9 Mt/a, or 1,139 t/h at an average iron feed grade of 27% based on plant availability of 90.3%. The crushing section design is set at 68.5% availability. The plant will operate 365 days per year and will produce iron concentrate.

The projected production is 2.5 Mt/a at an average concentrate grade of 69% Fe. The expected weight recovery is 30%, and iron recovery is 78.6%. The overall objective is to produce DR)-grade iron concentrate with high iron content and minimal impurities.

The key design criteria are summarized in Table 1-3, and the simplified process flow diagram is presented in Section 17.1.

Table 1-3: Summary Design Criteria

Parameter	Unit	Value
Operating Schedule		
Annual Operating Days	d/a	365
Equipment Utilization—Crusher	%	68.5
Equipment Utilization—Concentrator	%	90.3
Mill Feed		
Mill Feed Annual Capacity	Mt/a	9.0
Mill Feed Rate	t/h	1,139
Mill Feed Fe Grade (Life-of-Mine Average)	%	25.8–30.5
Mill Feed Magnetic Fe–Sat (Life-of-Mine Average)	%	22.1–24.4
Moisture	%	2
Mined Material SG	kg/L	3.42
Iron Concentrate		
Concentrate Annual Production (Life-of-Mine Average)	Mt/a	2.5
Concentrate Production Rate	t/h	417
Concentrate Weight Recovery (Life-of-Mine Average)	%	30
Concentrate Fe Recovery	%	78.6
Concentrate Fe Grade	%	67.5
Concentrate SiO_2 Grade	%	<3.7

Run-of-mine (ROM) material will be hauled to the primary jaw crusher close to the mine, then transferred by overland conveyor to the process-plant pad. Primary crushed product goes through the secondary crushing stage and reports to the coarse stockpile. Reclaimed material from the coarse stockpile goes through High Pressure grinding Rolls (HPGR) to reduce particle size to one suitable for downstream processing. HPGR product will undergo three stages of magnetic separation (rougher, intermediate, and cleaner), with staged size-reduction to maximize magnetic mineral liberations. The key strategy involves rejecting non-magnetic material at the coarsest-possible size to optimize downstream processing, which would significantly reduce energy consumption. Magnetic separation tailings are dewatered for deposition as filtered tailings.

1.14 Project Infrastructure

The Lac Virot Project will require the following key infrastructure elements to support construction, commissioning, and production for the planned operation.

The project involves four open pits; waste dumps; surface-water management; roads; and mine support infrastructure such as maintenance shops, fueling stations, and explosives magazines. The mine operates for 27 years, beginning with pre-stripping before transitioning through Pits 1 and 2, and the deeper benches of Pits 3 and 4.

The process plant is central, near the Mid Pit, and includes crushing and conveyance, wet processing and beneficiation, and concentrate handling, including a rail loop for transporting concentrate product.

Tailings are filtered and conveyed for storage in a Filter Tailings Storage Facility (FTSF). The FTSF uses dry-stack storage near Mid Pit, minimizing water content and environmental risks. Once pits are depleted, tailings will be reclaimed, then redeposited these. The FTSF integrates natural topography for containment and long-term restoration. It includes a berm embankment, diversion channels, and seepage collection. The Central Pit and North Pit will later be used for tailings storage.

Site infrastructure includes a 4.5 km access road that connects to Highway 500, as well as a rail spur that connects to the Bloom Lake Railway for integration with the larger regional rail network. Electrical power is supplied by a 46 kV transmission line.

Supporting site infrastructure includes buildings for administration and laboratories; a security gatehouse; consumables and fuel storage; and an incinerator for combustible waste. Other waste is managed through an off-site landfill.

Site water is managed through pit dewatering, diversion channels, and waste dumps seepage collection, all of which will feed into a water treatment facility.

1.15 Market Studies and Contracts

The global shift towards greener steel production has significantly increased demand for high-grade DR pellet feed, a critical component for hydrogen-based steelmaking that reduces carbon emissions and aligns with international decarbonization goals.

The steel industry, a cornerstone of modern infrastructure, is one of the largest industrial contributors to global carbon emissions, accounting for about 8% of total emissions today. Without intervention, this share could rise to 12% by 2035, emphasizing the urgent need for decarbonization. Transitioning from traditional Blast Furnace and Basic Oxygen Furnace (BF/BOF) methods to the Direct Reduced Iron and Electric Arc Furnace (DRI/EAF) process is a pivotal step. The DRI/EAF process, particularly when powered by hydrogen, reduces carbon emissions significantly—down to 0.3–1 tonnes of carbon dioxide per tonne of steel, compared to 2.2 tonnes using BF/BOF—making it an essential solution for greener steel production.

According to the Steel Hub, the shift to DRI/EAF steelmaking is gaining momentum, with projections indicating an increase in its market share from 28% today to 38% by 2033. This transformation is supported by government funding in regions like Canada, the U.S.A., and Europe, aiming to lower domestic emissions. However, the DRI/EAF process requires high-purity DR-grade iron ore, with iron content exceeding 67% and low impurities. These stringent requirements make sourcing suitable materials challenging, as impurities like silicon dioxide (SiO_2) and aluminum oxide (Al_2O_5) reduce efficiency and increase energy consumption. Consequently, demand for DR-grade pellet feed is expected to surge, with CRU projecting global demand to reach 310 Mt by 2050.

This rising demand is further amplified by policies such as the European Union's Carbon Border Adjustment Mechanism (CBAM), which imposes financial penalties on carbon-intensive steel imports starting in 2026. CBAM incentivizes European steelmakers to adopt DRI/EAF technologies, driving DR-grade pellet consumption in Europe from 25 Mt in 2023 to over 50 Mt by 2030. Meanwhile, the Middle East, supported by favorable policies and abundant natural gas resources, and Asia-Pacific regions, including China and India, are also major contributors to the growing demand for green steel initiatives.

Despite this demand, supply constraints pose significant challenges. Projections indicate an annual demand of 90–120 Mt of DR-grade pellet feed by 2030, while supply is estimated at 70–80 Mt, leaving a deficit of 10–40 Mt annually. Addressing this gap will require investments in mining, beneficiation, and pelletizing infrastructure, along with technological innovations to process lower-grade ores into DR-grade material. Countries like Canada, Brazil, and Scandinavia, with their high-grade iron ore deposits, are well-positioned to bridge this gap and benefit from growing premiums for DR-grade iron ore. This transition underscores a market opportunity for producers, aligning with the global push toward low-carbon steelmaking.

Policies like the CBAM, imposing carbon costs on high-emission steel imports by 2026, further highlight the importance of DR-grade iron ore in the evolving market. DR pellet premiums have reached \$33 to \$55 per dry metric tonne (dmt) in 2024, driven by supply constraints and growing demand. With expected premiums of \$30–\$50/dmt above the 65% Fe Index, DR-grade products are set to play a pivotal role in the steel industry's transition to low-carbon production, addressing both market needs and environmental challenges.

1.16 Environmental Studies, Permitting, and Social or Community Impact

The Lac Virot Iron Ore Project is in a historically rich mining region, requiring careful environmental, permitting, and socio-community considerations. The project aligns with sustainable mining practices and regulatory compliance to minimize environmental impacts and enhance community engagement. The project site experiences a subarctic climate, with temperatures ranging from -21.8°C in January to 14.5°C in July. Annual precipitation averages 1,000 mm, with snowfall dominant from November to April.

1.16.1 Natural Features and Wildlife

The region includes various lakes, rivers, and streams that support diverse ecosystems. Key vegetation ecotypes range from boreal forests to wetlands and alpine heath. Environmental assessments indicate that no federally or provincially listed species at risk have been identified in the Project area.

Comprehensive environmental studies in the region provide insights into existing conditions. Key recent assessments include the Scully Mine Tailings Expansion (2021), which evaluated tailings storage expansion, the IOC Labrador City Explosives Facility (2023) assessing potential impacts of explosives storage, and the Kami Iron Ore Project (2023), which reviewed the environmental effects of mine and rail infrastructure development.

1.16.2 Indigenous and Community Engagement

The project acknowledges the significance of Indigenous communities in the region, including the Innu Nation (Sheshatshiu and Mushuau Innu First Nations), Innu Takuaikan Uashat mak Mani-Utenam (ITUM), La Nation Innu Matimekush-Lac John, Naskapi Nation of Kawawachikamach, and NunatuKavut Community Council. Consultations will address cultural, environmental, and economic impacts, ensuring inclusive decision-making and fostering positive community relations.

1.16.3 Regulatory and Permitting Framework

The project adheres to both provincial and federal environmental regulations, including the Newfoundland and Labrador's *Environmental Protection Act*, and the federal *Impact Assessment Act*, *Species at Risk Act,* Ontario's *Endangered Species Act*, *Fisheries Act*, *Water Resources Act*, and *Mining Act*. Permitting requirements cover land use, water management, waste control, and emissions regulations to ensure compliance with sustainable operations.

1.16.4 Rehabilitation and Closure Planning

A progressive rehabilitation strategy is embedded throughout the mine's lifecycle, ensuring long-term land stability and contamination prevention. Post-mining efforts will focus on revegetation and ecosystem restoration; secure waste-management for rock piles and tailings storage; and post-closure environmental monitoring to maintain regulatory compliance.

1.17 Capital and Operating Costs

The capital cost estimate encompasses mine development, processing facilities, infrastructure, and environmental management for a facility designed to produce 2.5 Mt/a of DR-grade iron concentrate. The estimates account for initial capital investments required for construction and operational start-up, as well as sustaining capital and operating costs necessary to maintain mining and processing activities over the Project's lifespan. These cost estimates were developed based on the mine plan outlined in this study, incorporating expenditures related to mine operation, processing, site maintenance, and environmental compliance. Table 1-4 provides a breakdown of the estimated capital expenditures, sustaining costs, and closure for the Project.

Table 1-4: Estimated Costs, Sustaining and Closure Costs

Description	Initial (US$ M)	Sustaining (US$ M)	Closure (US$ M)
Mining	150.6	197	-
Process Plant	207.3	5	-
Tailings Facility	22.5	25	10
Infrastructure	44.3	15	-
Subtotal	424.7	-	-
Owners Cost	51.7	-	-
Indirect Costs	115.4	5.5	-
Subtotal	540.0	-	-
Contingency	107.9	-	-
Closure	-	-	110
Total	**647.9**	**247.5**	**120**

The project operating costs, averaged over the LOM, have been estimated and summarized in Table 1.5.

Table 1-5: Project Estimated Unit Cost Summary

Area	Processed (US$/t)	Concentrate (US$/t)
Mining	5.01	16.03
Process Plant	3.93	12.93
Tailings	0.68	2.23
Transportation and Logistics	5.47	18.00
Owners Cost	0.39	1.29
Total	**15.48**	**50.48**

1.18 Economic Analysis

The economic analysis for the Lac Virot Project was conducted using a discounted cash-flow model to evaluate both pre-tax and post-tax financial scenarios. Key financial metrics such as net present value (NPV) and internal rate of return (IRR) were calculated on a 100% equity-financed basis, using discount rates ranging from 0% to 12%. The base case applied an 8% discount rate to determine the Project's NPV, while the payback period for the initial investment was assessed based on undiscounted annual cash flow. To ensure a robust understanding of economic resilience, a sensitivity analysis was performed, examining the effects of a ±20% variation in key factors such as capital costs, annual operating costs, and DR-grade iron concentrate market price.

The financial model for the Lac Virot Project was developed based on several key assumptions. The project is anticipated to undergo a two-year construction period, followed by a 27-year mine life, with no capacity expansion planned at this stage. Two pricing scenarios were incorporated into the financial model to account for potential fluctuations in iron ore markets.

In the base-case scenario, the Platts TSI IODEX 65% Fe CFR China price as of February 10, 2025, was used, which stood at $120/dmt. This aligns with Fastmarkets' long-term forecast for iron ore prices. A second scenario was also considered, incorporating a $32.5/t premium for DR-grade iron concentrate, bringing the total price assumption to $152.2/t. This pricing approach is consistent with the methodology Champion Iron employed in its 2024 pre-feasibility study (PFS) for the nearby Kami Project.

A 1% net smelter return (NSR) royalty was included in the cost structure, and all produced iron concentrate is assumed to be sold within the same year. All estimates were calculated in constant Q1 2025 dollars.

The economic evaluation for the base case revealed strong financial potential for the Project. On a pre-tax basis, the NPV (8%) was calculated at US$560.3 million, with an IRR of 17.1%. On an after-tax basis, the NPV (8%) was US$202.6 million, with an IRR of 11.8%. The operating cost was estimated at $61.89/dmt of concentrate, while capital expenditures included US$648 million in pre-production costs, US$250 million in sustaining capital, and US$120 million in closure costs.

A sensitivity analysis was conducted to assess the financial stability of the Project under changing conditions. The findings indicated that the Project is most sensitive to fluctuations in iron prices, followed by changes in iron head grade and recovery rates. In contrast, it is least affected by variations in capital and operating costs.

Table 1-6: Project Pre Tax Economic Results

Economics	US$120/dmt	US$152.2/dmt
Pre-Tax IRR %	17.1	27
Pre-Tax NPV (8%) (US$ M)	560.2	1,283.1
Pre-Tax NPV (10%) (US$ M)	363.8	952.5
Pre-Tax NPV (15%) (US$ M)	62.3	392.1
LOM Pre-Tax Cash Flow (US$ M)	2,674	4,74.6

1.19 Adjacent Properties

The Labrador region, part of Canada's renowned iron ore mining belt, hosts several world-class mines that are integral to the national and global iron ore supply chain. These operations are pivotal to local economies, providing jobs and supporting sustainable mining practices. Below is an overview of five key mines in the region, including one nearby in Québec that significantly influences the area.

1.19.1 Iron Ore Company of Canada

The IOC operates one of the largest and oldest iron ore mines in the region, located in Labrador City. Established in 1954, this open pit operation produces high-quality iron ore concentrate and pellets, which are exported globally.

1.19.2 Tata Steel Minerals Canada Direct Shipping Ore Project

Near Schefferville and spanning the Labrador–Québec border, the Direct Shipping Ore project by Tata Steel Minerals Canada is a major hematite mining operation. The mine specializes in extracting high-quality ore that requires minimal processing, thus optimizing energy and cost efficiency.

1.19.3 Champion Iron—Bloom Lake Mine

In Fermont, Québec, near the Labrador border, Champion Iron's Bloom Lake mine is a leading producer of high-grade iron ore concentrate. This open pit mine has proven reserves that make it a key supplier to markets demanding low-carbon steel production.

1.19.4 ArcelorMittal's Mont Wright Mine

The Mont Wright mine, operated by ArcelorMittal, is one of the largest iron ore mines in North America, and is also in Fermont, Québec. Known for its scale and efficiency, Mont Wright produces high-quality iron ore concentrate, serving as a cornerstone for ArcelorMittal's global steelmaking operations.

1.20 Other Relevant Data and Information

N/A

1.21 Interpretation and Conclusions

The results of this PEA study demonstrate that the Lac Virot project is both technically feasible and economically viable for processing iron ore extracted from its deposits to produce high-quality DR-grade iron concentrate, meeting the stringent demands of the rapidly expanding green steelmaking industry.

Based on the information available and the degree of development of the Project as of the effective date of this report, Sedgman/Onyx believes that the Lac Virot project is sufficiently robust, both technically and financially, to warrant advancing to a PFS.

1.22 Recommendations

The Lac Virot Project has been demonstrated to be a technically feasible and economically viable source of DR-grade iron ore concentrate, with a clear path toward commercial production. Advancing the Project requires conducting a PFS to refine mine planning, processing routes, and economic modeling, improving capital and operational cost accuracy. Key focus areas include optimizing pit design, developing a mining schedule, conducting geotechnical and hydrological studies, and evaluating environmental and social impacts to align with sustainable development goals. Additionally, strengthening infrastructure and logistics, refining metallurgical processes, implementing sustainable tailings management, and securing market positioning and partnerships will be crucial in ensuring the Project’s long-term success.

The deposit remains open in multiple directions within the geological resource model, presenting significant opportunities for resource upgrading through infill and step-out drilling. Targeted geophysical surveys, geochemical analyses, and structural mapping will enhance exploration efficiency, ensuring a more systematic and data-driven approach to defining the resource. Additionally, comprehensive ore-variability studies will strengthen predictive modeling, improving the accuracy of future production potential assessments and optimizing mine planning.

Further testwork programs should aim to optimize flotation conditions, magnetic separation, grindability, and comminution to enhance recovery rates and product quality. Pilot-scale testing and full-scale flowsheet development should be conducted to assess hematite and magnetite recovery, ensuring energy-efficient and cost-effective processing.

Securing agreements with Nalcor Energy for hydroelectric power and the Port of Sept-Îles for cost-effective shipping is critical. The new Churchill Falls transmission line will ensure a stable power supply, and evaluating renewable energy integration will reduce carbon emissions. Shared infrastructure partnerships with surrounding mines should also be explored to lower costs.

A sustainable tailings disposal strategy should prioritize dry stacking and filtered tailings to minimize environmental impact. Backfilling exhausted pits with dry-stacked tailings should be further assessed to reduce the surface footprint and enhance land rehabilitation. Ongoing environmental baseline studies and engagement with Indigenous and local communities are essential for compliance and sustainability.

To maximize value, the Project should secure long-term off-take agreements with steel producers and direct reduction facilities. Exploring joint ventures with green steel initiatives and participation in sustainability certification programs like ResponsibleSteel will enhance the Project's market appeal. Premium pricing strategies based on product purity and Environmental, Social, and Governance (ESG) compliance should be explored.

2 INTRODUCTION

Red Paramount Iron Ltd. (Red Paramount or the Company) is a privately owned, emerging Canadian DR Grade Iron Concentrate developer in Vancouver, British Columbia, Canada. It is developing its 100%-owned Lac Virot iron ore property in the Eastern Canadian Province of Newfoundland and Labrador (Figure 2-1). The Company's registered corporate office is 20th Floor, 250 Howe Street, Vancouver, British Columbia, V6C 3R8, Canada.

Red Paramount Iron has prepared this Technical Report for the Lac Virot Project, situated in the eastern province of Newfoundland and Labrador. This report, titled *Preliminary Technical Assessment NI 43-101 Report for the Lac Virot DR-Grade Iron Ore Project*, *Newfoundland and Labrador, Canada*, with an effective date of February 16, 2025, and a report date of February 19, 2025. This Technical Report was prepared in accordance with National Instrument (NI) 43-101 and Form NI 43-101F1 and Companion Policy 43-101CP. It encompasses updates and newly developed sections covering multiple critical aspects of the Project.

The scope of this report includes revisions in key areas such as Mineral Resources, Mineral Processing and Metallurgical Testing, Environmental Studies, Permitting, and Social Impact. Additionally, it introduces new sections detailing Mining Methods, Recovery Methods, Project Infrastructure, Market Studies and Contracts, and Economic Analysis. These updates have resulted in revisions to the Interpretation and Conclusions and Recommendations sections. These updates build upon and supersede the previous report, *NI 43-101 Technical Report on the Lac Virot Iron Ore Project Mineral Resource Estimate, Newfoundland and Labrador, Canada*, which had an effective date of February 16, 2023, and was published on March 23, 2023.

2.1 Contributors to the Technical Report

The development of this Technical Report and associated project updates has been a collaborative effort involving multiple engineering and consulting firms, each contributing specialized expertise:

- SGS Canada—responsible for drilling programs, data verification, and the estimation of the Mineral Resource estimate, ensuring geological accuracy and compliance with reporting standards.
- Sedgman Canada—led the mineral processing and metallurgical testwork, recovery method analysis, project infrastructure development, market studies and contracts assessment, capital and operating cost evaluations, economic analysis, and provided key interpretations, conclusions, and recommendations.
- Techser Mining Consultants—prepared mining methods and optimizing extraction techniques.
- NewFields Canada—led the tailings concept definition, environmental studies, permitting processes, and social or community impact assessments.

Figure 2-1: Project Location

2.2 Terms of Reference

Red Paramount engaged Sedgman's services on April 28, 2024, to work with other Qualified Persons (QP) from Newfield, Tescher, and SGS Canada to write an independent preliminary economic assessment (PEA), National Instrument (NI) 43-101 Technical Report on the Lac Virot DR Grade Iron Ore Project in Newfoundland and Labrador, Canada.

2.3 Report Responsibility and Qualified Persons

Table 2-1 provides a list of QPs and their responsibility for sections of this Technical Report. The QP certificates are included in Section 28.

Table 2-1: Qualified Persons and their Respective Sections of Responsibility

Qualified Persons	Company	Sections
Ben Adaszynski, P.Eng.	Sedgman Canada Ltd.	1, 2, 3, 18, 19, 21, 22, 23, 24, 25, 26, & 27
Aaron Massay, PAusIMM	Sedgman-Onyx	13 & 17
Leon Botham, MSCE, P.Eng.	Newfield Canada	20 and portions of Sections of 18 & 21
Cristian Garcia, P.Eng.	Techser Mining Consultants	16, 21.1, & 21.2, and portions of Sections 1, 3, & 27
Maxime Dupéré, B.Sc., Géo	SGS Canada Inc.	4 to 12, & 14

2.4 Qualified Persons Site Visits

The QPs visited the Project site on the following dates:

The site visits to the Lac Virot Property were conducted on multiple occasions to inspect core logging, sampling, and storage facilities, as well as to validate drill hole locations and assess the geological conditions.

- February 17, 2023—Maxime Dupéré visited only the Lac Virot core shack in Wabush, examining drill cores, logs, and assay certificates. However, the property itself was covered in snow and inaccessible. A site visit included an inspection of core logging, cutting, sampling, and storage areas. Selected mineralized drill core intervals were examined, along with accompanying drill logs, maps, cross-sections, and assay certificates. Core storage was found to be well-organized, with sample tags properly maintained. The QP determined that protocols in place were adequate.
- August 13, 2024—A field tour of the Property was conducted by Maxime Dupere with junior mining engineer Nico Porta. No active drilling was ongoing. The visit included validation checks of drill hole collar locations in the North and South deposit areas using a handheld Global Positioning System (GPS) receiver, confirming that the Company's reported locations matched with minor discrepancies within expected GPS error. A newly discovered non-magnetic outcrop was observed near drill hole LV-25.

The August 2024 site visit is considered the most current under NI 43-101CP Section 6.2. The QP concluded that independent verification confirms iron mineralization on the Property, and the results are suitable for use in the current Mineral Resource Estimate. No new material scientific or technical information has emerged since the inspection.

2.5 Effective Date

The effective date of this technical report is February 16, 2025.

As of the effective date of this Technical Report, the authors are not aware of any material fact or material change with respect to the subject matter of this Technical Report that is not presented herein, or which the omission to disclose could make this Technical Report misleading.

2.6 Previous Technical Reports

Several technical reports have been completed on the Lac Virot Iron Ore Property, providing geological, resource, and project development insights:

- In 2012, A.C.A. Howe International Limited prepared a technical report for Ridgemont Iron Ore Corp., titled *Technical Report on the Lac Virot Iron Ore Property, Labrador West, Newfoundland & Labrador*, dated March 25, 2012 (A.C.A. Howe, 2012).
- In 2021, Johannes Francois Erasmus completed a technical report for Red Paramount Iron Ltd., titled *2021 Technical Report on the Lac Virot Iron Ore Property, Labrador West, Newfoundland and Labrador*, dated August 26, 2021 (Erasmus, 2021).
- In March 2023, SGS published a mineral resource estimate titled *Lac Virot Iron Ore Project Mineral Resource Estimate, NL, Canada*.

Relevant and current information from these reports has been reviewed and incorporated by the QP in this Technical Report.

2.7 Abbreviations, Currency, and Units of Measure

All units of measurement used in this technical report are International System of Units or metric, except for Imperial units that are commonly used in industry (e.g., ounces (oz.) and pounds (lb.) for the mass of precious and base metals). Every effort has been made to clearly display the appropriate units being used throughout the Report. All currency is in Canadian dollars ($) unless otherwise noted. The locations of all maps are referenced to Universal Transverse Mercator (UTM) Zone 19, 1North American Datum (NAD) 83, unless otherwise stated. Frequently used abbreviations and acronyms can be found in Table 2-1.

This Report includes technical information that required subsequent calculations to derive subtotals, totals and weighted averages. Such calculations inherently involve a degree of rounding and consequently introduce a margin of error. Where these occur, the QPs consider them immaterial.

In terms of reporting weight percent (%) for unbeneficiated iron ore samples, Fe_2O_3 is standard for whole rock major oxide analysis. To convert to total Fe multiply by 0.6994. Total Fe does not necessarily mean valuable or saleable iron content because iron silicates etc. contain Fe which cannot be recovered. The internationally accepted unit of measure for iron ore pricing is the dry metric tonne (dmt) unit which is 1% of iron (Fe) contained in a tonne of ore, concentrate or pellets, excluding moisture. The price per tonne of a consignment of iron ore is calculated by multiplying the dollars/dmt price by the percent Fe content of the ore in that shipment. For example, a 66.2% Fe content iron ore will be priced at the contracted dmt price multiplied by 66.2, a 55% Fe content ore at the dmt price multiplied by 55. Iron ore contract prices are quoted in United States dollars (US$) and are correctly referenced in this Technical Report.

3 RELIANCE ON OTHER EXPERTS

McInnes Cooper, a legal firm specializing in mineral rights and corporate law, has verified the information concerning property status and ownership (see Section 4). Their *Title Opinion Report on the Red Paramount Mineral Claims* (2025), dated February 12, 2025, outlines the legal standing of the mineral licenses Red Paramount holds, and confirms their ownership and compliance status.

McInnes Cooper conducted searches through official government records, including the Mineral Claims Recorder Registry maintained by the Newfoundland and Labrador Department of Industry, Energy and Technology (IET). Their assessment, which includes mineral rights inquiry reports and compliance certificates issued by the IET establishes the following:

- Good Standing: As of February 12, 2025, all licenses remain valid and in good standing, subject to continued compliance with applicable laws and regulations.
- Encumbrances: Other than the agreements described in Schedule B, the licenses are free and clear of any registered liens, mortgages, or royalty agreements recorded in the registry.

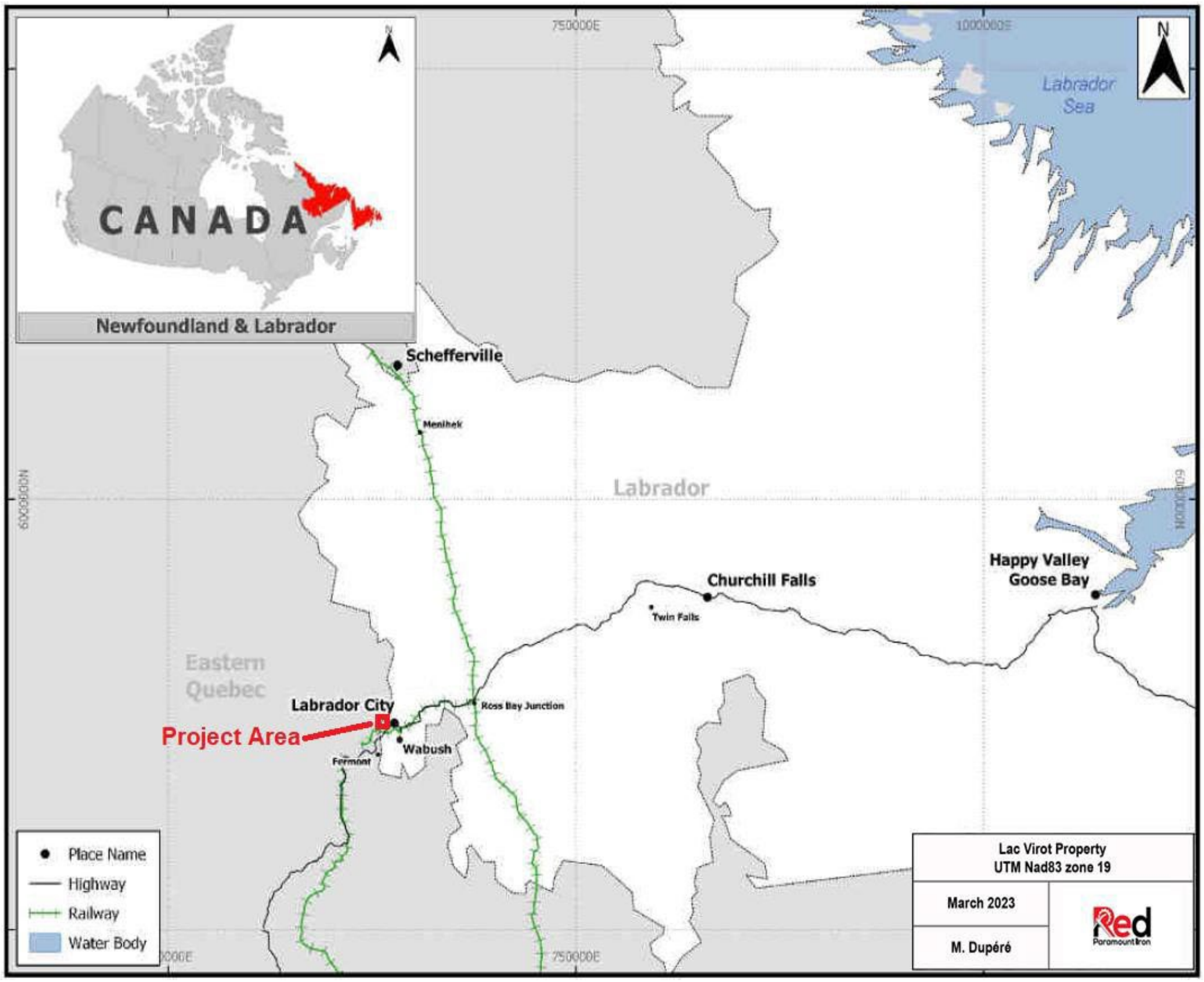
The legal opinion is based on official records as of February 6, 2025, and is subject to the laws of Newfoundland and Labrador and federal laws applicable at that time. The continued validity of the licenses depends on adherence to regulatory conditions. Additionally, no investigation was conducted regarding unregistered interests or potential Aboriginal claims on the land.

This verification provides the necessary legal basis for the property status and ownership considerations outlined in Section 4.

4 PROPERTY DESCRIPTION AND LOCATION

The Property is approximately 12 km west of the Town of Labrador City, in the Labrador West region, Newfoundland and Labrador, Canada (Figure 4-1). The Property is centered at approximately UTM Zone 19N, at N5875000, E627500, NAD 83.

Figure 4-1: Property Location Map



4.1 Mineral Rights

During 2020, Mine Capital acquired all of the issued and outstanding common shares of Ridgemont Iron Ore Corp. (Ridgemont) a private Canadian company with interests in the Lac Virot Property in Labrador. Upon completion of the acquisition, the Ridgemont Iron name was changed to Red Paramount Iron Ltd., with the benefit of all the rights and obligations previously held by Ridgemont with respect to the Lac Virot Property, which consists of four Map Staked Licenses (Figure 4-2) with a combined 521 claims covering 130.25 km^2. The mineral rights are in National Topographic System (NTS) of Canada 1:50,000 scale map sheets 23G/03 and 23B/14. A summary of mineral rights is provided in and shown further in Figure 4-2.

Table 4-1: Lac Virot Property Mineral Rights

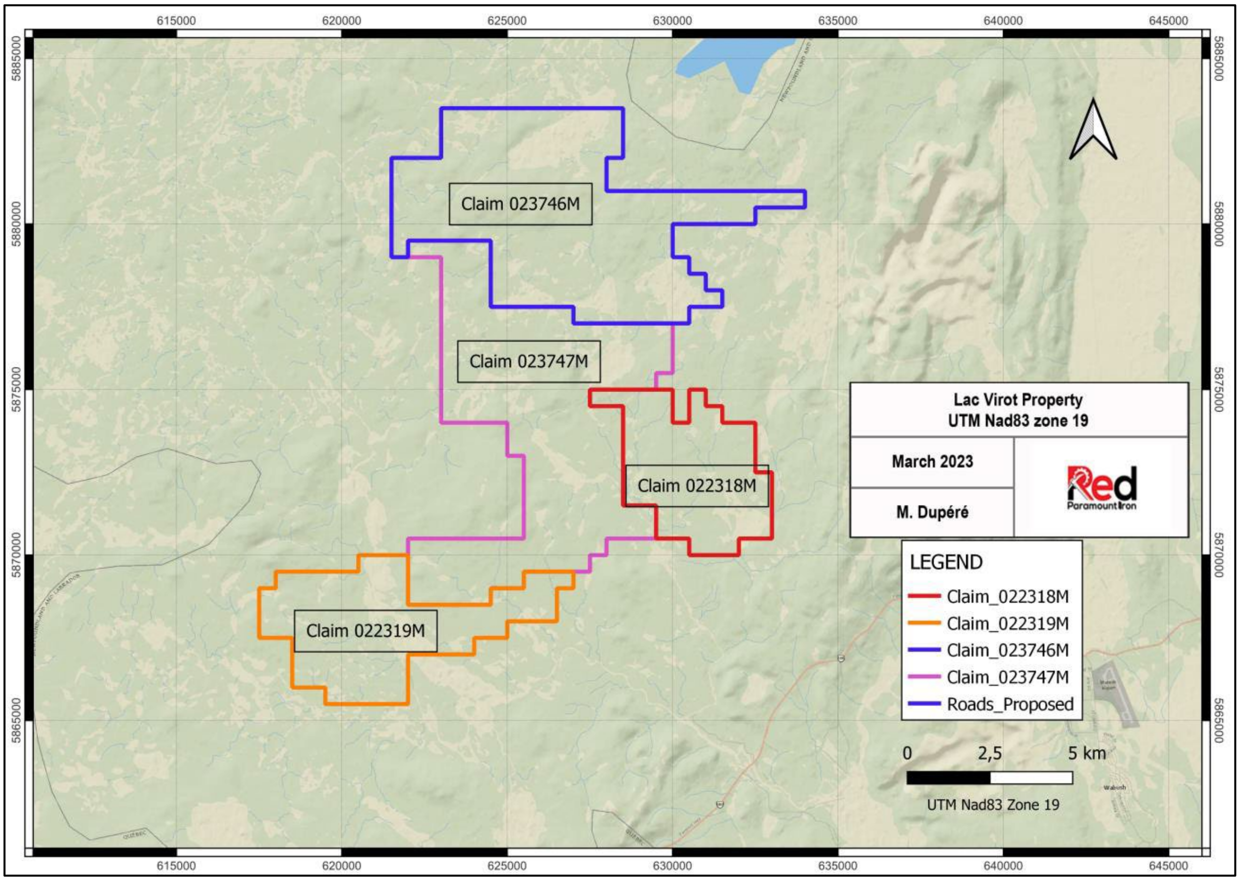
License No.	Status	Owner	Location	Mapsheets	No. Claims	Area (ha)	Issue Date
022318M	Issued	Red Paramount Iron Ltd.	Lac Montenon	23B/14, 23G/03	70	1,750	7-Jun-2010
022319M	Issued	Red Paramount Iron Ltd.	Lake Virot	23B/14	90	2,250	10-Jan-2011
023746M	Issued	Red Paramount Iron Ltd.	Lac Montenon	23G/03	181	4,525	7-Feb-2011
023747M	Issued	Red Paramount Iron Ltd.	Lac Montenon	23B/14, 23G/03	180	4,500	7-Feb-2011
Total					**521**	**13,025**	

All mineral licenses are in good standing with respect to exploration expenditures (assessment work expenditures). For all licenses, additional expenditures will be required as early as 2025 and 2026, to keep some of the claims in continued good standing. Table 4-1 the amount of exploration dollar expenditures required for each mineral license, as well as the expenditure year and date in which the expenditures should be incurred.

Red Paramount has no current title to surface rights. All the current mineral land holdings are on Crown land, including a portion within the municipal boundary of Labrador City. These areas may be accessed upon application for and receipt of various land-use permits. The Government of Newfoundland and Labrador historically issued such permits in an expeditious manner.

There are no existing environmental liabilities with respect to the Lac Virot Property. Red Paramount believes that it is prudent to consider environmental and water resources aspects of a potential mining property at an early stage of its exploration. The initial step in the overall mitigation plan is to define baseline parameters so that the environmental situation can be documented in its semi-natural state prior to potential major mining and processing activities.

Figure 4-2: Lac Virot Property



Source: Red Paramount Iron (2021). Updated and validated by Sedgman (2025, February).

4.2 Newfoundland and Labrador Basic Information

Since its first settlement by immigrants, Newfoundland and Labrador has been highly dependent on its resource sector. The province was initially settled because of its rich fishing grounds on the Grand Banks. The mainstay of the province's fishing industry has been groundfish (primarily cod); however, other important species are flounder, redfish, capelin, shrimp, and crab. In 1977, the Canadian government extended its fishery jurisdiction to 200 miles around the coast of the province to gain better control of fishing activity, but in 1989 it was recognized that many of the Atlantic's key groundfish stocks were in severe decline. Since that time, there have been successive reductions in quotas and fishing moratoria.

The second most prominent industry in the provincial economy is mining. The forecast of the Gross Value of Mineral Shipments for 2024 is $5.2 billion, which makes a significant increase from the previous year. The increase is mainly attributed to a rise in the value of iron ore and gold shipments. Other minerals mined in the province are gold, asbestos, limestone, and gypsum. In 1994, a major discovery of nickel, copper, and cobalt was made at Voisey Bay. The development of the Voisey's Bay mine expansion (the underground mine) is approximately 41% complete, with expected capital expenditures of US$471 million as of April 2020. The expansion will produce about 45,000 tonnes of nickel per year.

The third significant traditional goods-producing industry is newsprint, which consists primarily of three pulp and paper mills in Corner Brook, Grand Falls, and Stephenville.

The discovery of offshore oil and gas reserves has added a new dimension to the marine resources of the province. The Hibernia, Terra Nova, White Rose, and Hebron fields collectively drive production, with the province’s offshore oil output exceeding 300,000 barrels per day in 2024.

The province's largest utility industry is electric power. The largest hydroelectric facility is in Churchill Falls, Labrador, with a total installed capacity of 5403 MW. The completion of the Muskrat Falls project and ongoing work on other renewable energy initiatives underscore NL’s leadership in clean-energy production.

Newfoundland's agriculture industry is small. Output is mainly for domestic consumption, although some agricultural products such as blueberries and furs are sold to markets outside the province.

Newfoundland and Labrador continue to leverage its natural resource wealth to sustain and grow its economy. The province is a leader in iron ore, nickel, and oil production, while also advancing renewable energy initiatives. Diversification efforts in agriculture, fisheries, and sustainable resource management ensure resilience in the face of evolving market dynamics and environmental challenges.

4.3 Mining Law

In Newfoundland and Labrador, the ownership of surface rights and mining rights can vary from one property to another, particularly in regions where immigrant settlement and industry have a long history. In practice the great majority of current mineral rights in the province are acquired by staking, with a few Fee Simple Grants that date back to at least the mid 1900s still remaining, along with a few areas of Exempt Mineral Lands set aside by the provincial government.

The acquisition of mineral rights in the province is by online map staking using the Province’s Mineral Rights Administration System—Geoscience Atlas. Every natural person, nineteen years of age or more, and every corporation has the right to obtain mineral exploration licenses.

The basic unit in map staking is the claim. In map staking, a claim is 500 m^2, or one quarter of a UTM grid square—bounded by one corner of a UTM grid square. The UTM grid square used in staking a claim is the 1,000 m grid used on the 1:50,000 National Topographic Map Series (NAD 27). There is no restriction on the shape of an area being applied for; an application for a Map Staked License can be for a maximum of 256 claims, with all the claims in the electronic application coterminous.

A mineral exploration license is issued for a term of five years. However, a mineral exploration license may be held for a maximum of twenty years provided the required annual assessment work is completed and reported upon, and the mineral exploration license is renewed every five years.

Expenditures on the following, within the area of the license, shall be credited as assessment work when carried out for the purpose of exploration:

- Prospecting, trenching, pitting, and stripping
- Line cutting and flagging
- Surface and underground geological surveys
- Airborne, surface, and underground geochemical surveys
- Airborne, surface, underground geophysical surveys, and borehole geophysical surveys
- Photogeological and remote imagery interpretations
- Drilling and core transportation to storage facilities of the Department of Natural Resources
- Land surveys, topographic surveys
- Shaft sinking and other underground exploration work
- Engineering evaluation reports, beneficiation studies, analysis, assays, and microscopic studies, and others as may be approved by the Minister.

4.4 Environmental Permitting

Any person who intends to conduct an exploration program on a staked or licensed area must submit prior notice to the Department of Natural Resources, with a detailed description of the activity. An exploration program that may result in ground disturbance or disruption to wildlife or wildlife habitat must have an Exploration Approval from the department before the activity can commence.

5 ACCESSIBILITY, CLIMATE, LOCAL RESOURCES, INFRASTRUCTURE AND PHYSIOGRAPHY

This section has been extracted from previous technical reports.

The Lac Virot Property is 12 km west of the Town of Labrador City.

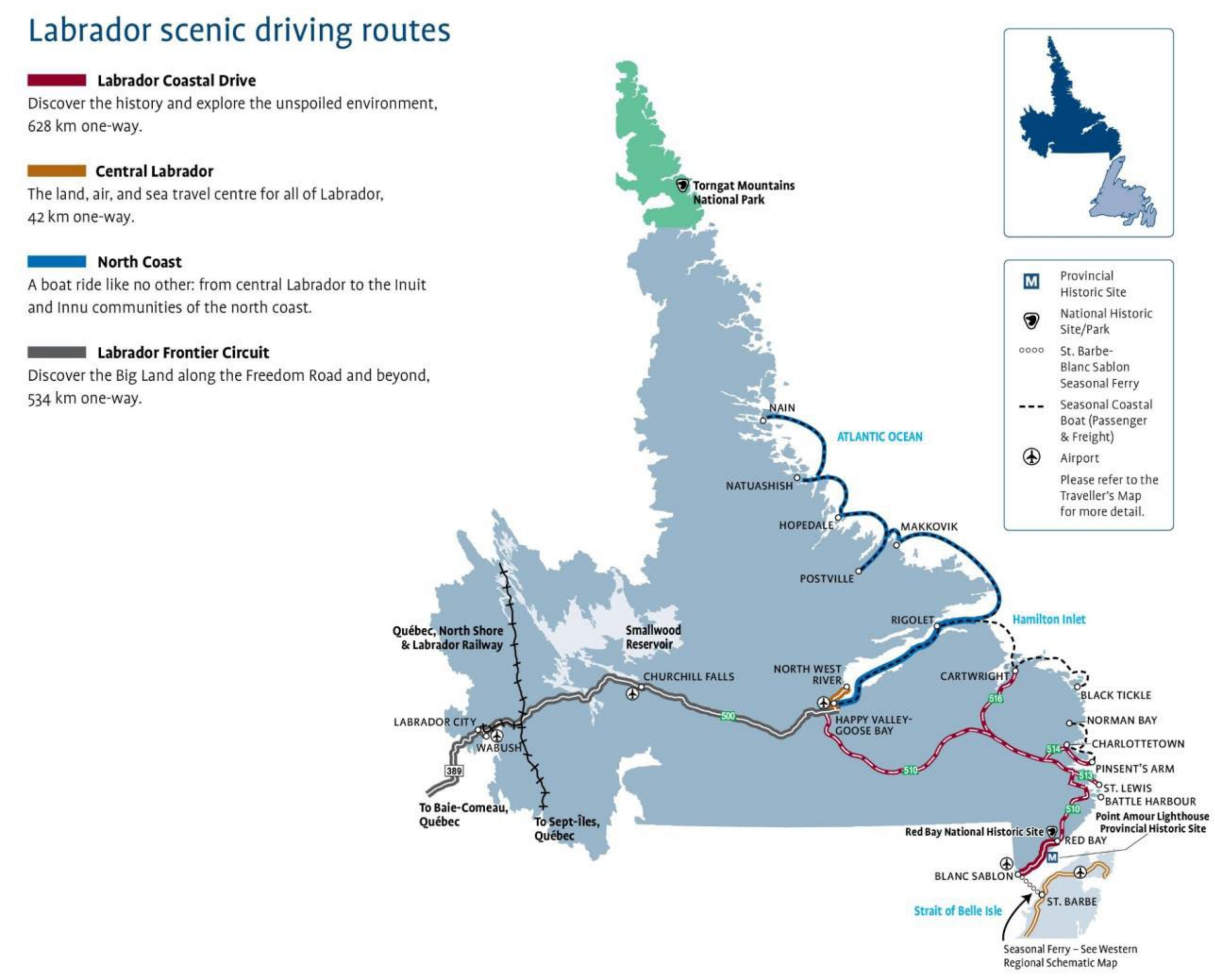
The district of Labrador West includes the Town of Labrador City (population ~7,200) and neighbouring Wabush (population ~1,906). Labrador City is 590 km by road north-northeast of Baie Comeau, Québec, and 533 km by road west of Goose Bay, NL (Figure 5-2).

Labrador City and Wabush can provide modern housing as well as educational, medical, recreational and shopping facilities. Labour, industrial supplies and services for mining and exploration activities are readily available in the region. Wabush Airport is the only airport in western Labrador, and is served by two commercial airlines. The Québec North Shore & Labrador Railway (QNS&L) connects Labrador West with the port of Sept-Îles, Québec on the north shore of the St. Lawrence River.

Figure 5-1: Aerial View of Labrador City and Wabush

The climate of western Labrador, particularly around Wabush, is characterized by cold winters, mild summers, and significant precipitation throughout the year, typical of the subarctic climate zone. Annual precipitation averages 851.6 mm, comprising approximately 482.6 mm of rainfall and 445.7 cm of snowfall. July is typically the wettest month, with an average rainfall of 111.5 mm, while November sees the highest snowfall accumulation, averaging 75.3 cm. Mean daily temperatures range from 13.7°C in July to -22.7°C in January, with historical extremes of -47.8°C recorded on February 17, 1973, and 33.3°C on June 16, 1983. These climatic conditions allow for year-round mining and exploration activities; however, harsh winter conditions, including extreme cold and heavy snowfall, can impose seasonal restrictions and operational inefficiencies, necessitating careful planning and adaptive strategies to maintain continuous operations.

Figure 5-2: Regional Main Access Routes



5.1 Rail and Port Facility for Iron Ore

Rail transportation plays a crucial role in connecting the Port of Sept-Îles to the iron ore mining regions in Québec and Labrador. The Québec North Shore and Labrador Railway (QNS&L), built in the 1950s by the Iron Ore Company of Canada (IOC), spans 414 km between Sept-Îles and Labrador City, facilitating the movement of up to 21 Mt of iron ore annually. The Bloom Lake Railway, commissioned in 2010, provides an additional 36 km link, connecting the Bloom Lake Mine to the Wabush Lake Railway, and then to the QNS&L (Figure 5-3). These interconnected lines create a streamlined transportation network, moving iron ore efficiently from inland mines to the port.

Figure 5-3: Railway Line to Bloom Lake Mine Near Lac Virot

Source: A.C.A Howe International Ltd. (2012), verified by SGS (2023).

The QNS&L railway has evolved over the decades, adapting to changes in the mining industry. Initially built to serve mining operations in Schefferville, it expanded in the late 1950s to connect major deposits near Labrador City. While passenger service on the northern section of the QNS&L is now managed by Tshiuetin Rail Transportation, IOC retains control of the southern section, crucial for iron ore transport. Recent infrastructure developments, including a rail link from the Bloom Lake Mine to the QNS&L, further enhance the region's logistical capabilities, ensuring efficient export operations via the Port of Sept-Îles.

The Port of Sept-Îles, on the north shore of the Gulf of St. Lawrence, is a cornerstone for iron ore exports in North America. With a cargo-handling capacity of 100 Mt annually, it is the continent's largest mineral port. It is equipped with modern facilities, including a multi-user dock capable of accommodating bulk carriers up to 400,000 tonnes, making it a vital asset for the Canadian iron ore industry. The Port includes a multi-user deepwater terminal, completed in 2015; it is the only facility in North America capable of accommodating vessels up to 400,000 tonnes. It includes two berths with depths of 16 and 20 m, equipped with conveyors and ship loaders boasting a loading capacity of 8,000 t/h. This terminal significantly enhances the port's capacity to handle high-volume bulk shipments.

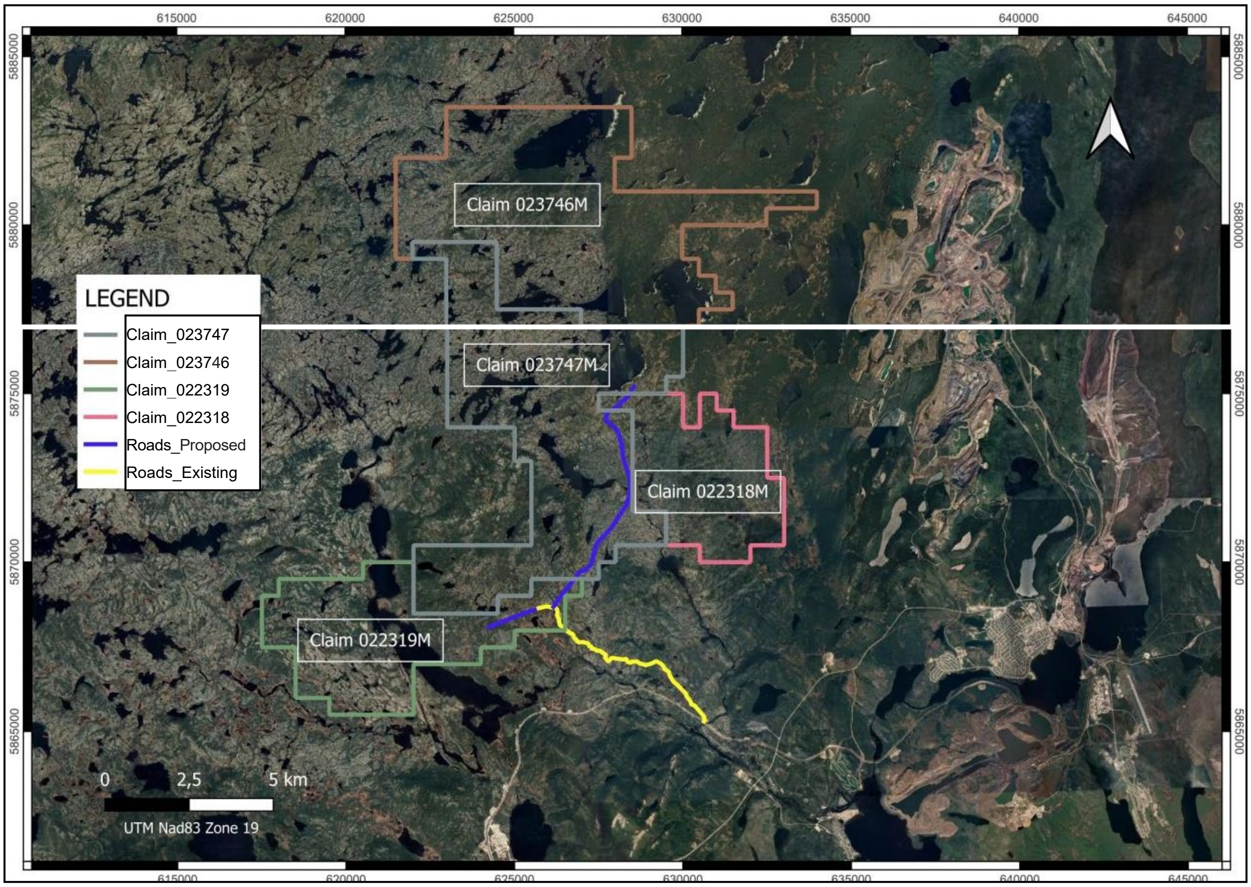
In terms of the actual Lac Virot Property there is no on-property all-weather road access or mining-related infrastructure. In the author's opinion there are sufficient Crown land surface rights available for all aspects of any potential mining operations, along with abundant water. Labrador West can provide nearby electrical power supplies, and mining personnel.

The Lac Virot property is characterized by moderate relief and undulating terrain with elevations ranging from approximately 590 to 720 m above sea level (masl). The region is predominantly covered by spruce and lichen forest, with minor muskeg bogs and marshes in low-lying areas. The area is characterized by an open-to-dense tree canopy underlain by an undergrowth of lichens and shrubs. The prominent tree species is black spruce (Picea mariana). Shrub species include lambkill (Kalmia, angustifolia), Labrador tea (Ledum groenlandicum), blueberry (Vaccinium angustifolium) and alder (Alnus spp.). The dominant lichen species are Reindeer Lichens (Cladonia alpestis, C. arbuscula, C. mitis).

5.2 Accessibility

Labrador City and Wabush are serviced daily by commercial airline from Sept-Îles, Montréal, and Québec City and also by flights from Goose Bay, Deer Lake, and St. John's. The Lac Virot property can be reached by helicopter during summer or by snowmobile during winter. Red Paramount has submitted a permit application to Crown land, and it is in progress.

Figure 5-4: Location and Road Access to the Lac Virot Project Area



Note: Coordinate System: UTM And 83 Zone 19.

5.3 Climate

The subarctic climate in the region is typical of north-central Québec and Western Labrador. Winters are harsh, lasting about six to seven months, with heavy snow in November. Summers are generally cool and wet; however, extended daylight enhances the summer workday. Early and late winter conditions are acceptable for conducting ground geophysical surveys and drilling operations. The prevailing winds are westerly, averaging 14 km/h, based on 30 years of records at the Wabush Airport.

5.4 Local Resources and Infrastructure

Labrador City and Wabush were founded in the 1960s to accommodate the employees of the IOC and Wabush Mines. A qualified work force is within the general area due to the operating mines and long history of exploration in this region.

Although relatively low-cost power from a major hydroelectric development at Churchill Falls to the east is transmitted into the region for the existing mines operations. The availability of additional electric power on the existing infrastructure in the region is limited.

The Property is also close to other key services and infrastructure, and fairly close to the existing railroad going to the Fermont area iron ore mines operated by Tatas Steel Canada and Minerais de Fer Québec. Freshwater sources on the site are easily accessible.

5.5 Physiography

The Property is characterized by gentle rolling hills and valleys generally trending northeast-southwest, reflecting the structure of the underlying geology. Elevations range from 580 to 764 masl.

There are several lakes within the area. Lac Virot is within the most southern part of the Property. The larger Lac Emma is in the northern part of the Property. The cover predominantly consists of various coniferous and deciduous trees, with alder growth over burnt areas. Marshes are also present in the area.

6 HISTORY

6.1 Previous Exploration of the Lac Virot Property

Red Paramount has checked the NL government open file assessment reports for the Lac Virot area and determined that little historical work was reported on the current claims area prior to the 2011 and 2012–2013 programs by Ridgemont. The only known early exploration was conducted by Labrador Mining and Exploration Company and IOC in the 1950s. By the mid-1950s IOC was focused exclusively on developing the nearby Carol Lake Property.

IOC conducted a modest helicopter-supported reconnaissance program in the vicinity of Emma Lake in 1979. A total of 53 rock samples was reportedly taken, but only one was analyzed. This sample (Block 84-18) reportedly contained 55.2% total iron, 53% magnetic iron by saturation magnetic analysis (Satmagan) test, 21.1% silicon dioxide, and 0.85% manganese (Grant, 1979).

Federal and provincial government geological and geophysical maps show that iron formation units are present on the Lac Virot claims.

A 1950s IOC report describing mineralization on the current property in the Emma Lake–O'Brien Lake area notes magnetic-specularite gneiss and quartz-magnetite-specularite rock exposures. The Emma Lake area was mapped in some detail (Brown et al. 1990).

No recent property-scale exploration work is reported in the open file assessment reports. However, the Lac Virot property area was included in two regional studies conducted for IOCin 2000 and 2001. In 2001, IOC retained consultants to complete a structural interpretation based on Landsat Thermatic Mapper imagery (Watts, Griffis and McOuat, 2001). This survey also covered a very large area that included the current Property.

Historically, very little exploration has been done in this area, and on the Lac Virot project area in particular.

MPH Consulting Limited (MPH) completed exploration work in the summer of 2011, which included:

- An initial geological reconnaissance and prospecting site visit to the Property to confirm the existence of good-quality iron formation units and to determine specifications for an airborne geophysical survey.
- Completion of a helicopter-borne high-resolution magnetic, radiometric, and very-low-frequency electromagnetic (VLF-EM) survey.
- Focused follow-up of the airborne geophysical survey by additional reconnaissance geological mapping and prospecting.

In 2012, further exploration work continues with airborne magnetic and gravity surveys and a round of 12,000 m of drilling:

- Fugro (May 2012)—airborne gravity gradiometric (AGG) survey

- Terraquest (October 2012)—horizontal aero-magnetic gradient & XDS VLF-EM survey
- Drilling program (June to October 2012).

The key findings of the integrated geological and geophysical programs as they pertain to the property and regional geology are presented in Section 7, but the detail is discussed in the following subsections.

6.2 2011 and 2012 Exploration Works

6.2.1 2011 Initial Geological Mapping and Prospecting Site Visit by MPH Consulting Limited

MPH conducted a helicopter-supported site visit to the Lac Virot area from June 9 to 12, 2011, using a Bell 206LR helicopter chartered from Universal Helicopters Newfoundland Limited of Goose Bay, Labrador. (Coates, et al., 2012).

The geological objectives were to complete reconnaissance investigations over several reported iron occurrences and aeromagnetic anomalies scattered about the Lac Virot Property. A preliminary, mostly aerial investigation was conducted to identify signs of previous exploration activities and to find potential summer or winter access routes for more advanced exploration activities such as diamond drilling programs.

Prior to implementing the program, MPH compiled existing information such as open-file assessment reports, and public domain regional geological, mineral occurrence, and geophysical data.

At the time of the MPH site visit, there was a clear requirement for more-detailed and accurate geophysical information to assist with ongoing geological studies and the eventual selection of high-potential target areas for drilling. Helicopter surveying was recommended as the best option given the close proximity to IOC's Carol Project mining operation with its inherent low-level flight restrictions.

The southernmost magnetic high feature, the Neal Lake anomaly, was found to have little or no bedrock exposure. This would have precluded effective prospecting and geological evaluation work in the early historical years of exploration and development.

The sites visited during the initial program by Felix Lee can be found on the NI 43-101 report on the property dated March 25, 2012. Selected analytical results for the Sokoman Formation iron formation samples collected during the property visit are shown in Table 6-1. It is noted that these are grab samples of better material taken to identify the general nature of the iron formation and deleterious elements. Due to the spot locations and incomplete cross-sectional exposures, such samples are typically not representative of a given location. However, the initial results were very promising.

Table 6-1: Initial Site Visit Iron Formation Selected Analyses

Sample Number	Location (UTM NAD 83)			SiO_2 %	Fe %	Mn %	P %	TiO_2 %
	Easting (m)	Northing (m)	El. (m)					
413551	625750	5882780	644	47.22	34.04	0.031	0.026	0.02
413552	628975	5877703	652	59.47	21.92	1.047	0.009	0.02
413553	629004	5875281	636	32.56	46.55	0.359	0.013	0.03
413554	627857	5875052	632	28.22	48.87	0.542	0.013	0.02

6.2.2 Airborne Geophysical Survey

Terraquest Limited was retained to conduct a high-resolution magnetic, radiometric and XDS VLF-EM Helicopter Survey over the Lac Virot Property in June 2011. An Application for Exploration Work and Notification of Planned Mineral Exploration Work was approved by the Government of Newfoundland and Labrador, Department of Natural Resources, Mines Branch, Mineral Lands Division on July 5, 2011. The survey was flown successfully in 10 survey flights over 10 days from July 25 to August 3, 2011, and which included 1,063 km of grid lines and 145 km of tie lines for a total of 1,208 km.

The contractor supplied the following properly qualified and experienced personnel to carry out the survey and to reduce, compile, and report on the data:

- Pilot Patrick Coté (Panorama Helicopters Ltd.)
- Field Operator Amit Praharaj
- Office Chief Geophysicist Allen Duffy (radiometrics)
- Office Processing Geophysicist Carolyn Boone (magnetic, EM, and compilation)
- Manager Charles Barrie.

The survey was performed over the Lac Virot property approximately 20 km northwest of Wabush airport, with 50 m mean terrain clearance, 100 and 200 m line intervals (depending on the area), a 1,000 m tie line interval, and with data sample points approximately every 2–3 m along the flight lines. The base of operations was at the Wabush airport. A high-sensitivity magnetic and GPS base station at the airport recorded the diurnal magnetic activity, and references GPS time during the survey for adherence to survey tolerances. The results can be found on Horizontal Aero-Magnetic Gradient & XDS VLF-EM Survey report prepared by Terraquest for Ridgemont Iron Corp, in 2012.

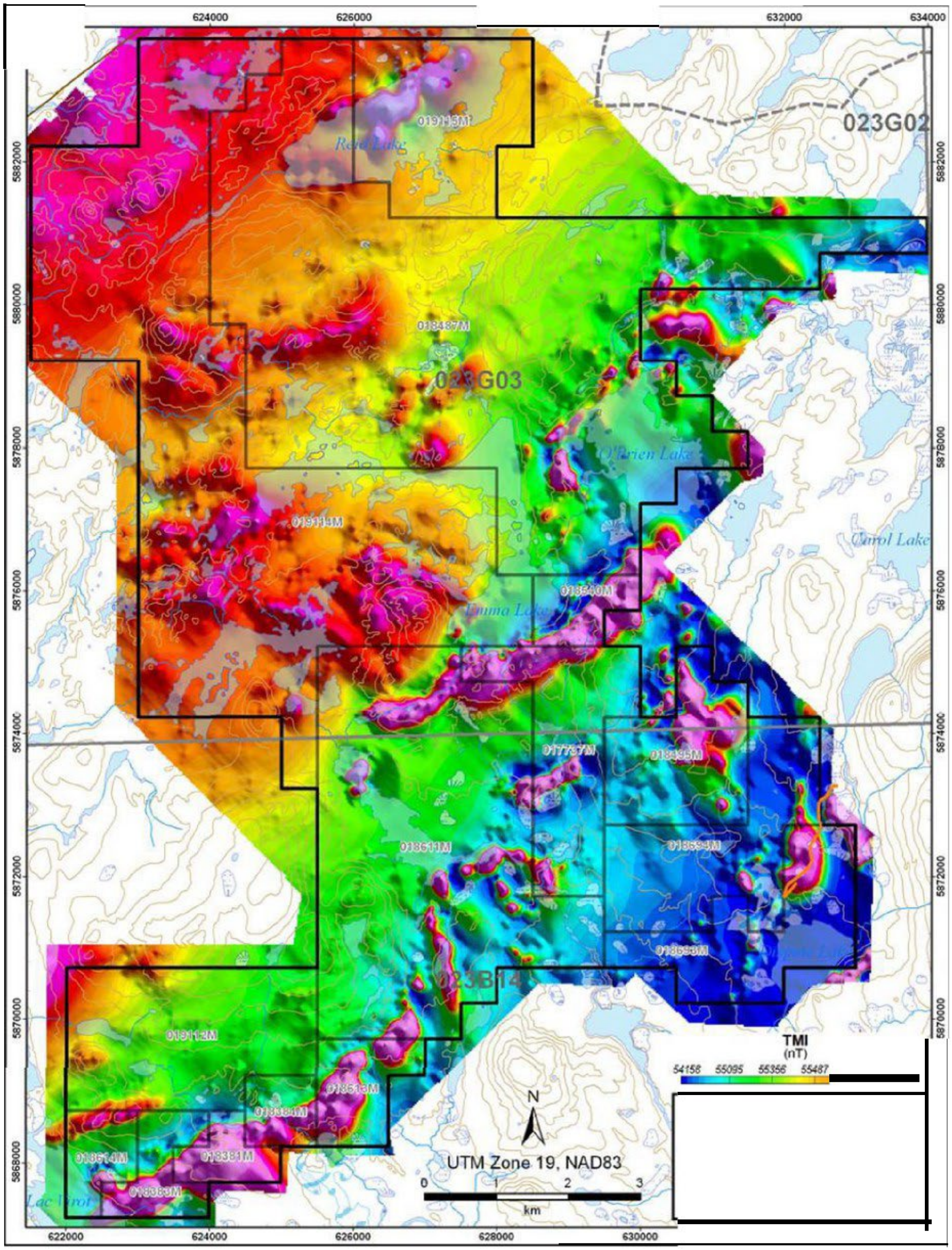
The primary airborne geophysical equipment includes one high-sensitivity cesium-vapour magnetometer, a gamma-ray spectrometer system, and an optional XDS VLF-EM system. Ancillary support equipment includes a tri-axial fluxgate magnetometer, recorder, radar altimeter, barometric altimeter, GPS receiver with a real-time correction service, and a navigation system. The navigation system comprises a left and right indicator for the pilot, and a screen showing the survey area, planned flight lines, and the real-time flight path. All data were collected and stored by the data acquisition system. Equipment specifications are summarized in Table 6-2.

Table 6-2: Airborne Geophysical Equipment Summary

Helicopter	Bell 206, Jet Ranger III
Magnetometer	Geometrics CS-3 Cesium Vapour
3-axis Magnetometer	Billingsley TFM100-LN
Gamma Ray Spectrometer	AGIS / IRIS 256 channel
Gamma Ray Detector Pack	1,024 in 3 (16.8 L) Downward 256 in 3 (4.2 L) Upward
VLF-EM	Terraquest Ltd: XDS system
GPS Receiver	Hemisphere R120
Radar Altimeter	Free Flight Systems TRA3500
Barometric Altimeter	Sensym
Navigation & Data Acquisition	AGIS by PicoEnvirotec Inc.
Magnetic Specifications	
Nose Boom	7.3 m
Output Sample Rate	10 Hz
4th difference noise envelope	0.10 nT
FOM index	<1.5 nT
Sensor Sensitivity	0.001 nT

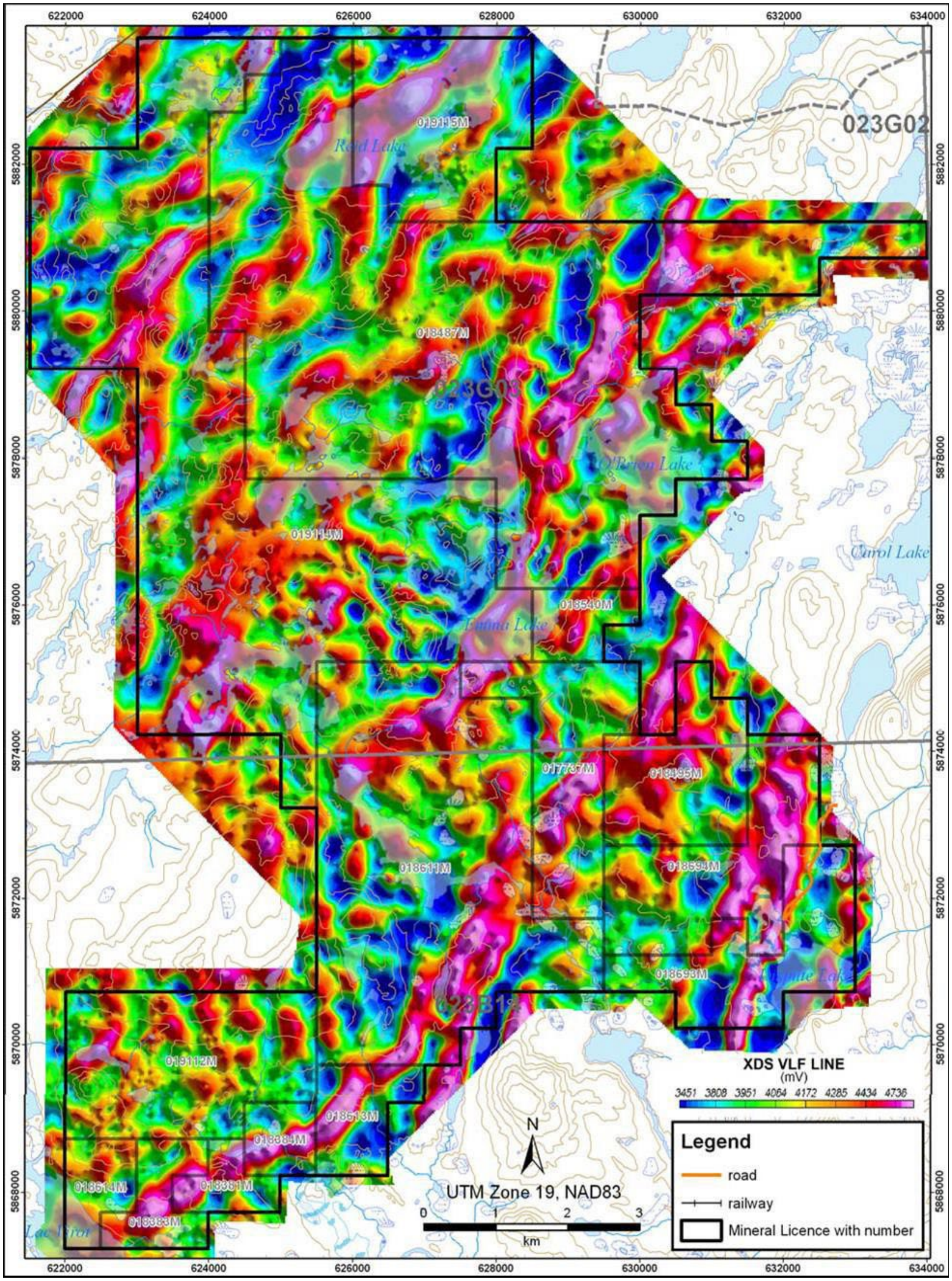
The basic magnetic and VLF-EM survey results are presented as contour maps in Figure 6-1 and Figure 6-2, respectively.

Figure 6-1: Lac Virot Airborne Geophysical Survey, Total Magnetic Intensity



Source: A.C.A Howe International Ltd. (2012).

Figure 6-2: Lac Virot Geophysical Survey, XDS VLF-EM



Source: A.C.A Howe International Ltd. (2012).

6.3 Focused Geological Mapping and Prospecting

During the latter stages of the airborne geophysical survey MPH conducted a helicopter-supported reconnaissance geological and prospecting program over selected parts of the Lac Virot area. The field program took place from July 29 to August 5, 2011, using a Bell 206 helicopter chartered from Canadian Helicopters of Sept-Îles, Québec.

The principal focus of the second reconnaissance mapping and prospecting program was to further assess the quality and distribution of the iron formation units using the newly acquired detailed airborne geophysical data as a guide. The geological party was divided into two teams, so with good weather and expeditious helicopter use it was possible to map and sample many iron formation units on the Property. As previously noted, geological observations from this work are incorporated into the geological section (Section 7).

Selected analytical results for the iron formation samples and samples from other geological units collected during the property visit are shown in Table 6-3, Table 6-4, and Table 6-5. Due to the spot locations and incomplete cross-sectional exposures, such samples are typically not representative of a given location. Sample locations are shown in Figure 6-3.

Table 6-3: Second Site Visit Iron Formation Selected Analyses

Sample Number	Length (m)	UTM Zone 19N (NAD 83)		SiO_2 %	Fe %	Mn %	P %	TiO_2 %
		Easting (m)	Northing (m)					
328115	1.4	628958	5875519	48.22	25.37	1.010	0.009	0.03
328116	1.25	628958	5875519	56.49	22.81	0.961	0.009	0.02
328117	0.75	628974	5875437	59.21	20.06	0.965	-0.005	0.02
328118	0.85	628974	5875437	48.14	35.19	0.121	0.009	0.03
328119	0.95	628993	5875263	55.95	29.09	0.323	0.013	0.03
328120	1.05	628993	5875263	65.49	22.87	0.498	0.009	0.03
328121	2.3	628964	5875270	55.77	20.97	0.961	0.009	0.02

Source: A.C.A Howe International Ltd. (2012).

Table 6-4: Second Site Visit Iron Formation Selected Analyses

Sample Number	UTM Zone 19N (NAD 83)			SiO_2 %	Fe %	Mn %	P %	TiO_2 %
	Easting (m)	Northing (m)	El. (m)					
328104	625929	5869262	613	79.94	10.32	0.826	-0.005	0.02
328105	626072	5869339	614	78.56	10.63	0.395	-0.005	0.02
328081	627742	5875168	642	83.49	7.69	0.297	0.009	0.02
328082	628077	5874720	n/a	54.93	5.08	0.088	0.175	0.65
328084	627708	5874842	635	83.37	5.29	0.284	0.013	0.02

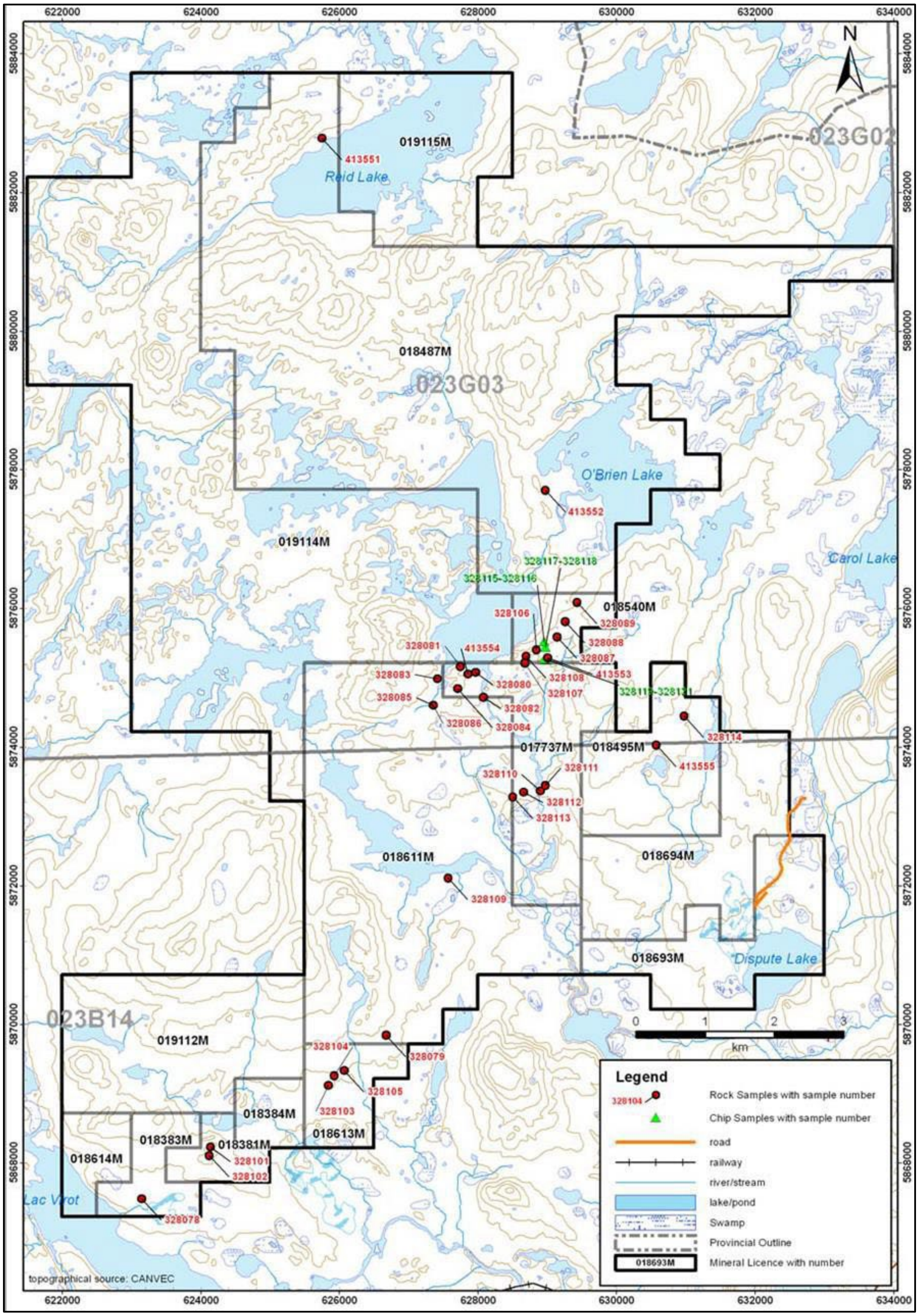
Source: A.C.A Howe International Ltd. (2012).

Table 6-5: Second Site Visit Iron Formation Selected Analyses

Sample Number	UTM Zone 19N (NAD 83)			SiO_2 %	Fe %	Mn %	P %	TiO_2 %
	Easting (m)	Northing (m)	El. (m)					
328101	624143	5868233	630	60.6	26.2	0.54	0.009	0.03
328102	624121	5868105	629	34.3	42.6	0.89	0.013	0.03
328103	625841	5869123	609	54.1	23.7	0.64	0.013	0.02
328106	628845	5875403	641	37.5	42.8	0.31	0.009	0.03
328107	628678	5875212	n/a	40.3	39.1	2.00	0.009	0.02
328108	628695	5875306	633	43.2	26.9	0.83	-0.005	0.02
328109	627569	5872114	601	47.0	33.9	0.93	0.009	0.02
328110	628901	5873364	608	62.0	22.4	0.11	-0.005	0.02
328111	628973	5873447	610	59.9	26.4	0.29	-0.005	0.01
328112	628657	5873348	609	58.5	24.2	0.53	0.026	0.04
328113	628503	5873283	610	59.4	25.7	0.18	-0.005	0.02
328114	630975	5874450	653	60.5	26.3	0.18	-0.005	0.02
328078	623146	5867479	593	8.77	44.1	3.45	0.017	0.04
328079	626677	5869845	619	54.3	18.3	0.68	0.009	0.02
328080	627964	5875081	636	56.7	19.1	0.72	0.009	0.02
328086	627356	5874603	629	54.0	28.4	0.65	-0.005	0.02
328087	629141	5875585	645	45.9	37.2	0.13	0.013	0.02
328088	629260	5875808	657	48.2	35.2	0.40	0.009	0.02
328089	629432	5876086	654	58.8	26.34	0.15	-0.005	0.01
328101	624143	5868233	630	60.6	26.2	0.54	0.009	0.03
328102	624121	5868105	629	34.3	42.6	0.89	0.013	0.03
328115	628958	5875519	642	48.2	25.3	1.01	0.009	0.03
328116	628958	5875519	642	56.4	22.8	0.96	0.009	0.02
328117	628974	5875437	647	59.2	20.0	0.96	-0.005	0.02
328118	628974	5875437	647	48.1	35.1	0.12	0.009	0.03
328119	628993	5875263	638	55.9	29.0	0.32	0.013	0.03
328120	628993	5875263	638	65.4	22.8	0.49	0.009	0.03
328121	628964	5875270	635	55.7	20.9	0.96	0.009	0.02

Source: A.C.A Howe International Ltd. (2012).

Figure 6-3: Rock and Chip Sample Location



Source: A.C.A Howe International Ltd. (2012).

6.4 Structural Geology Study

IOC initiated the Resource Assessment Program (RAP) in October 2000 to evaluate its holdings, including the Lac Virot area, to ensure a long-term and sustainable resource base. The RAP mandate was to define an additional 1.5 Bt of iron ore reserves in the vicinity of its Labrador City mining operations, west of Wabush Lake.

The key results from the 2001 Phase 1 RAP program are as follows:

- F1/F2 interference folds played an important role in determining the distribution and economic viability of iron ore bodies. The dominant structural trends between Polly Lake and Julienne Lake are controlled by northeast-trending F2 folds and thrust faults, which cut, overturn, and repeat the magnetite>20%-quartzite (minor marble Ca/Fe-silicates) ore-bearing horizon. These structures are superimposed on earlier F1 structures, causing structural thickening of iron ore beds.
- Gravity surveys provide a quantitative evaluation of a prospect and allow a better selection of drill-hole targets for prospect evaluation.
- Areas with positive magnetic and gravity signature, Fl/F2 fold interference patterns, and favourable geology are prime exploration targets.
- The Polly Lake prospect area has the potential to host a sizeable (>100 Mt) iron ore deposit.

The results from the 2001 Phase 1 RAP program were very encouraging, and further work was recommended to fully evaluate the iron resources potential of the Polly Lake area.

6.5 2012 Gravity Survey

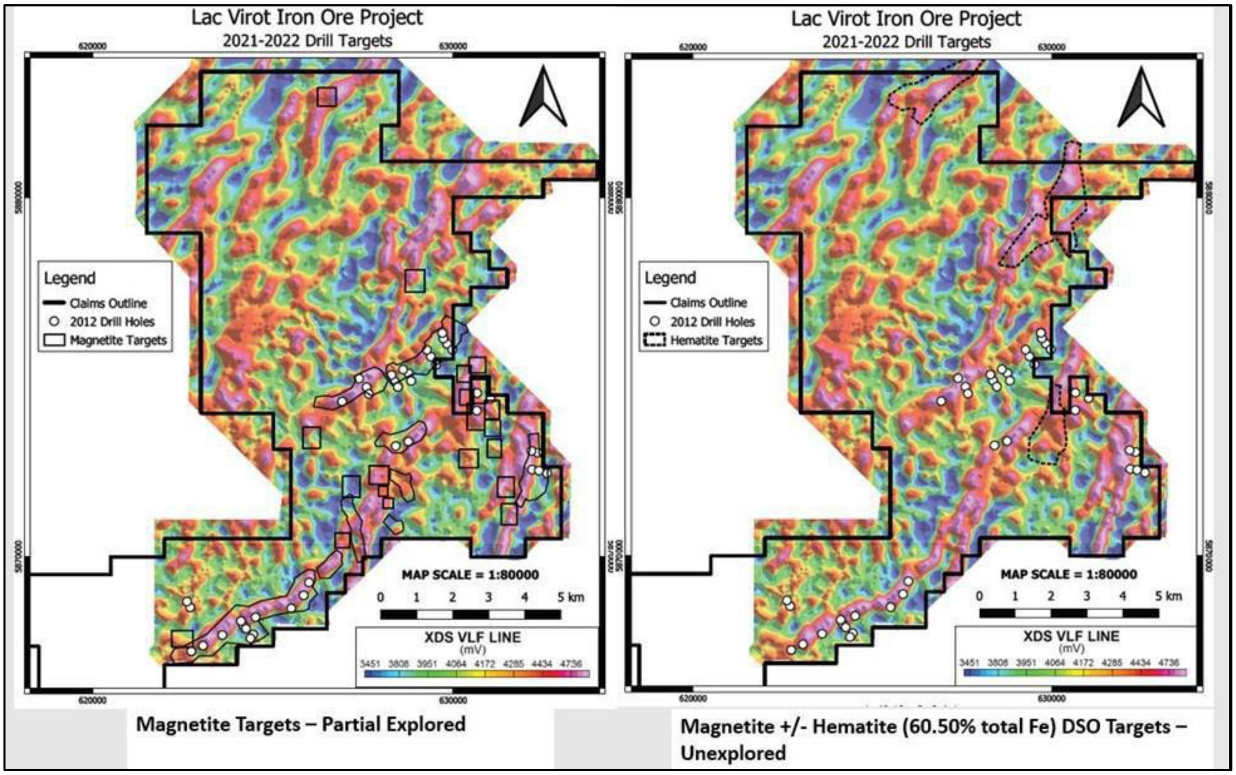
In May 2012, Fugro Airborne Surveys conducted an 884.7 km high sensitivity HeliFALCON AGG survey over the Lac Virot Property (Figure 6-5).

Several anomalous areas were outlined in the survey, which coincided with magnetic anomalies. Anomalies 1, 3, 4, and 5 all coincided with magnetic anomalies outlined in the 2011 survey. The area containing Anomaly 2 was not fully covered by the 2011 magnetic survey, so it is unknown whether there is a coincident magnetic anomaly.

The gravity survey conducted at the Lac Virot Property in May 2012, was successful in giving a better understanding of the area and outlining several anomalies. The data outline eight separate gravity anomalies, most of which coincide with magnetic anomalies that together indicate a dense material beneath the surface Figure 6-4 shows high-level Lac Virot Project high-potential zones.

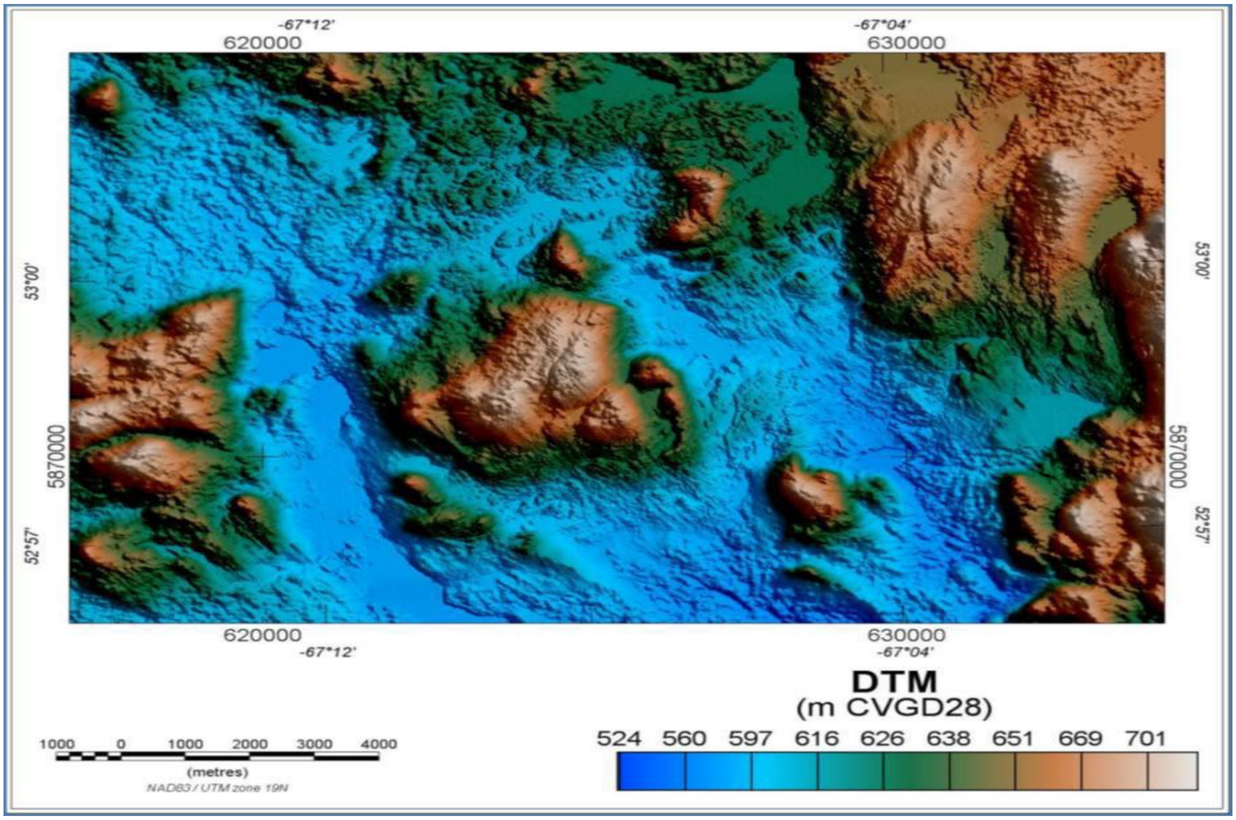
As can be seen in Figure 6-6, the long wavelength information in gD (both the Fourier and equivalent-source versions) can be improved by incorporating ancillary information. Such information is available from the Canadian Gravity Anomaly Data Base. The Fourier and equivalent-source gD grids were conformed to a grid derived from a subset of the database as follows. The (density 2.67 g/cm^3) results are presented in Figure 6-7.

Figure 6-4: Lac Virot Identified Target Areas 2011



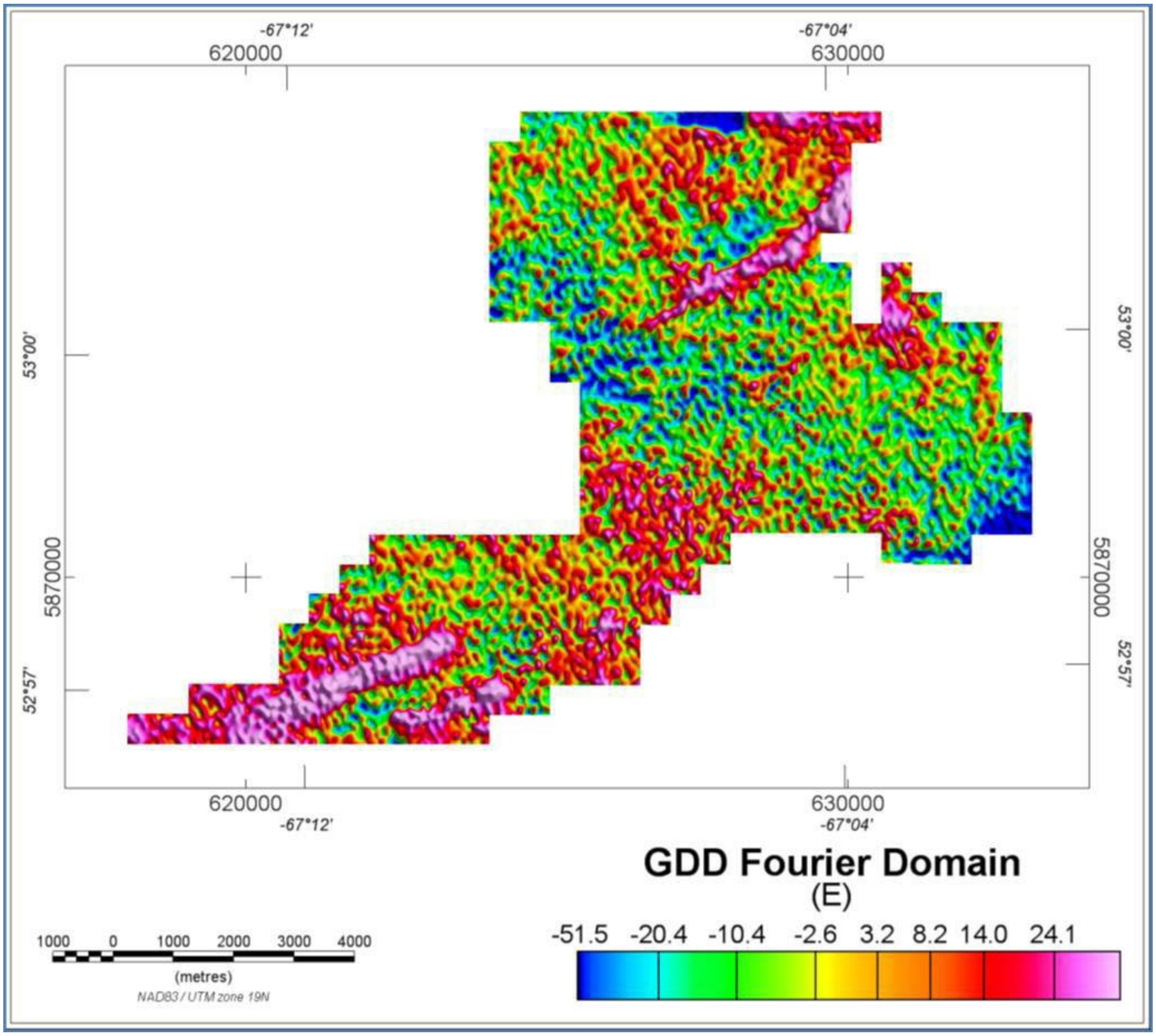
Source: Red Paramount Iron (2021).

Figure 6-5: Lac Virot Digital Terrain Model (Metres, Referenced to the EGM96 Geoid)



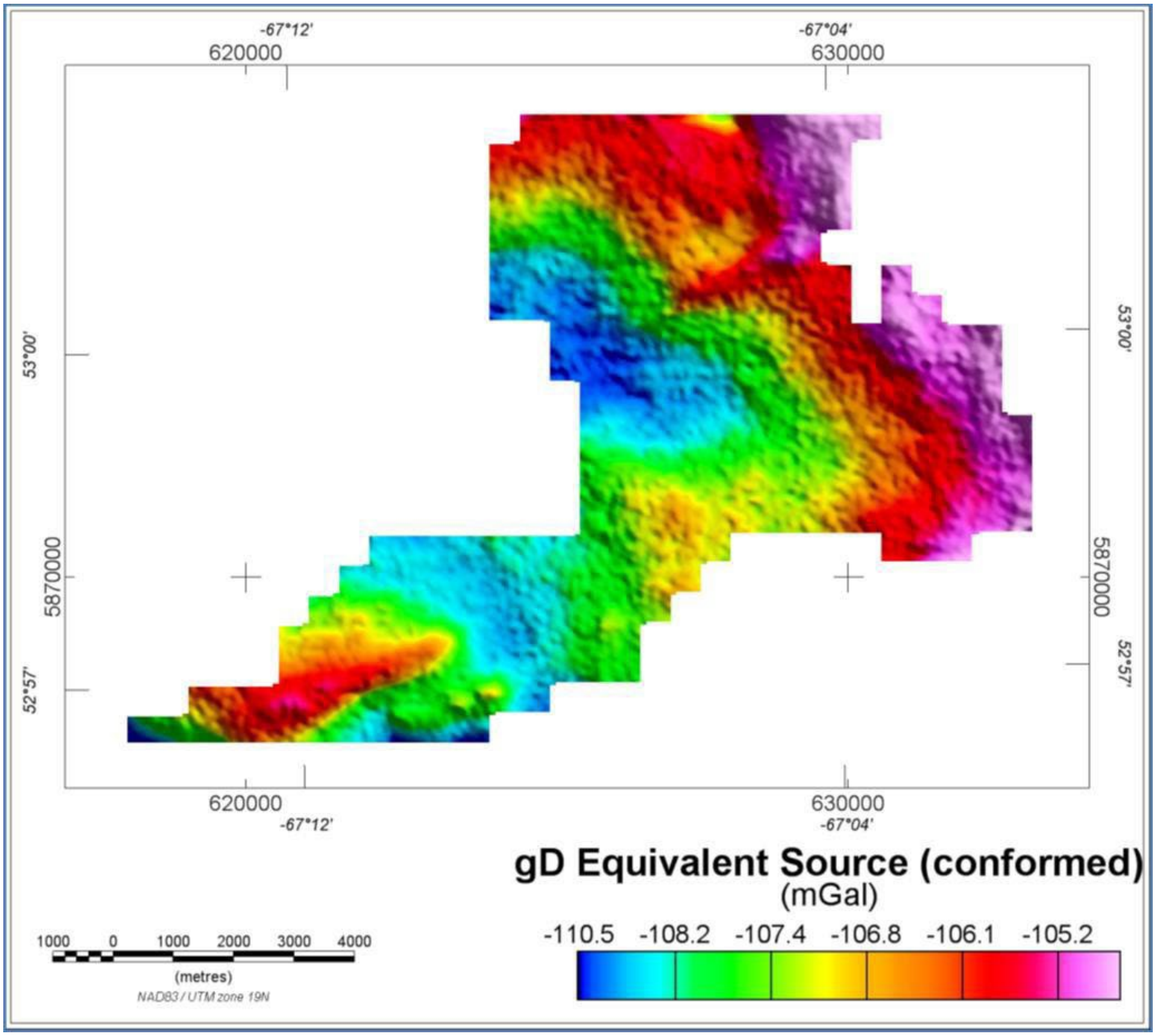
Source: Fugro Airborne Surveys (2012).

Figure 6-6: Lac Virot Vertical Gravity from Equivalent Source Processing



Source: Fugro Airborne Surveys (2012).

Figure 6-7: Lac Virot Vertical Gravity from Equivalent Source Processing Conformed to Regional Gravity Data

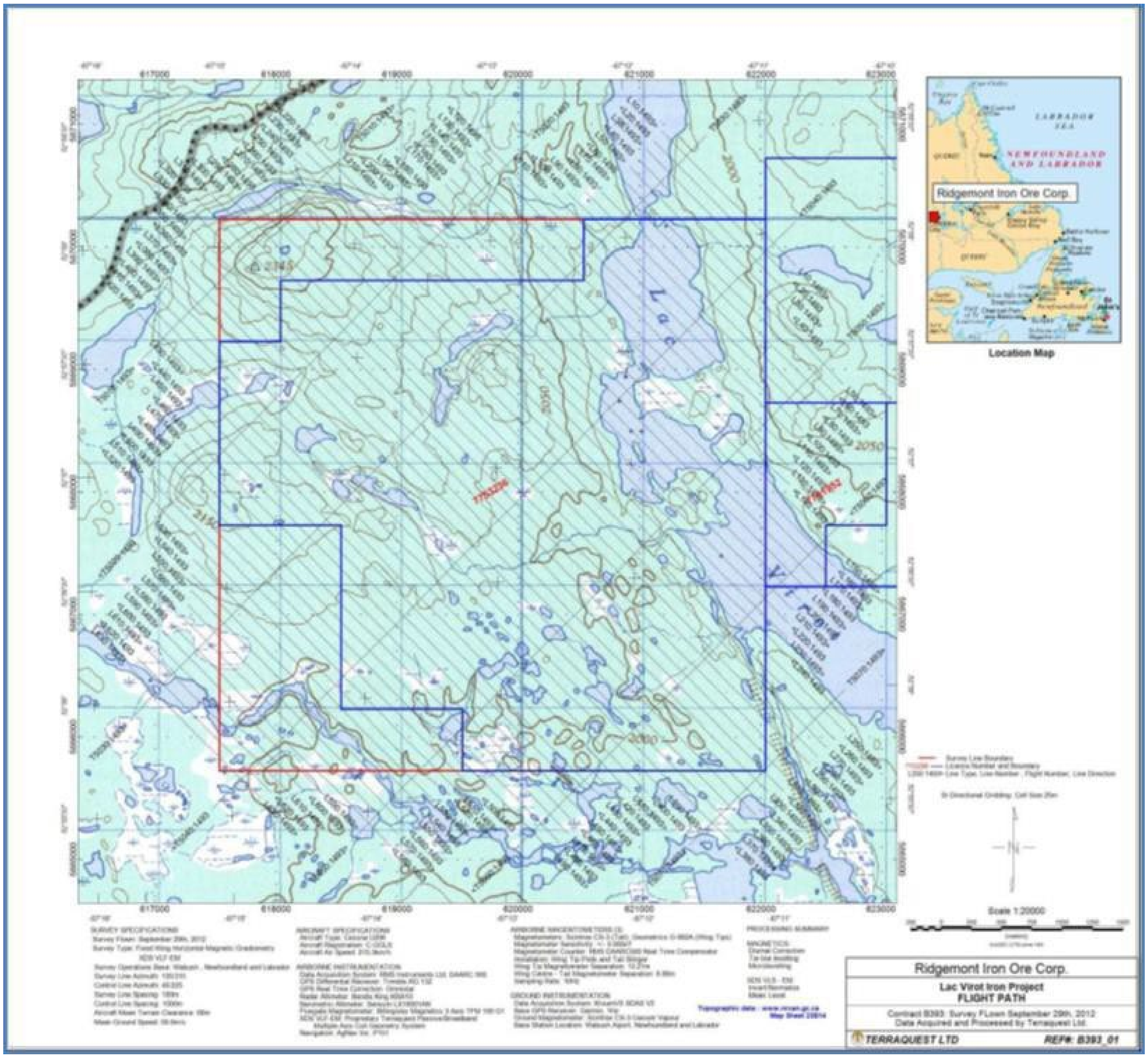


Source: Fugro Airborne Surveys (2012).

6.6 Horizontal Aero-Magnetic Gradient and XDS VLF—EM Survey (2012)

An airborne high-sensitivity, horizontal-gradient magnetic and XDS VLF-EM survey was performed over the southwestern portion of Claim 022319M of the Lac Virot Iron Project in 2012. This survey was designed to match a larger survey, B357, flown in 2011, as an extension to the southwest of Lac Virot Property. Survey parameters were 68 m mean train clearance, 100 m line intervals, 1,000 m tie-line intervals, aircraft speed of 59.8 m/sec, and with data sample points at 10 Hz to provide equivalent ground samples at approximately 6 m along the flight lines. A high-sensitivity magnetic and GPS base station at the Wabash airport recorded the diurnal magnetic activity and reference GPS time during the survey.

Figure 6-8: Horizontal Aero-Magnetic Gradient Survey on Claim 022319M



Source: Fugro Airborne Surveys (2012).

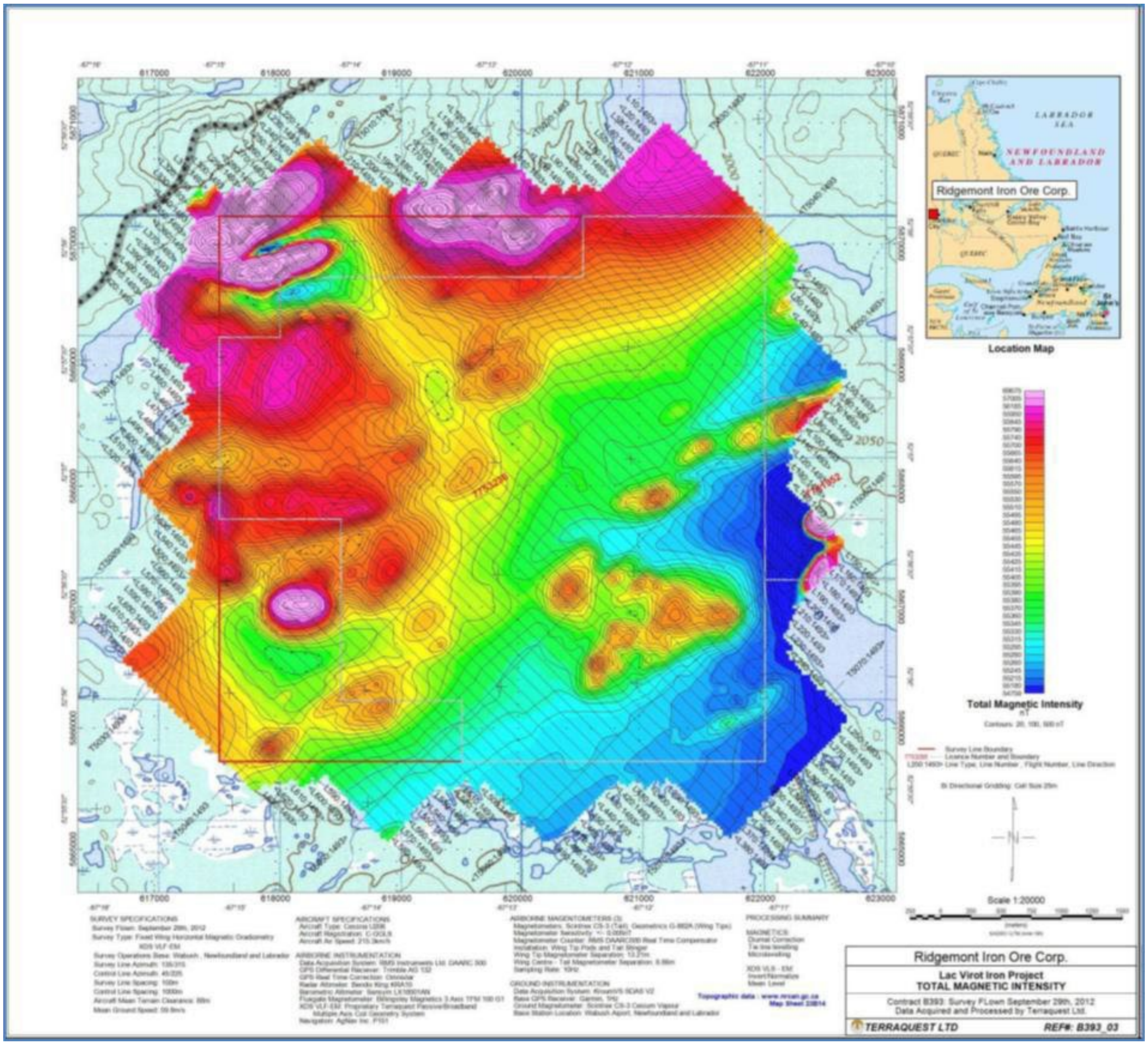
The data were subjected to final processing to produce grids with a cell size of 25 m and colour digital images at 1:20,000 scale as follows:

- Magnetics: Total Magnetic intensity of tail sensor, calculated first vertical derivative, along track magnetic gradient, lateral magnetic gradient
- XDS VLF-EM: Line, Ortho and Vertical Fields
- Experimental Self Potential Channels: electric field of x, y and z components and DC of longitudinal and vertical components; Cutler and North Dakota VLF-EM on ORTHO coil
- Flight Path and Digital Terrain Model.

All data were archived as Geosoft database (GDB and GBN) and XYZ formats; all Geosoft MAP and GRID files were used to make the maps; JPEG and PDF formats; and the report in PDF format are included in the archive.

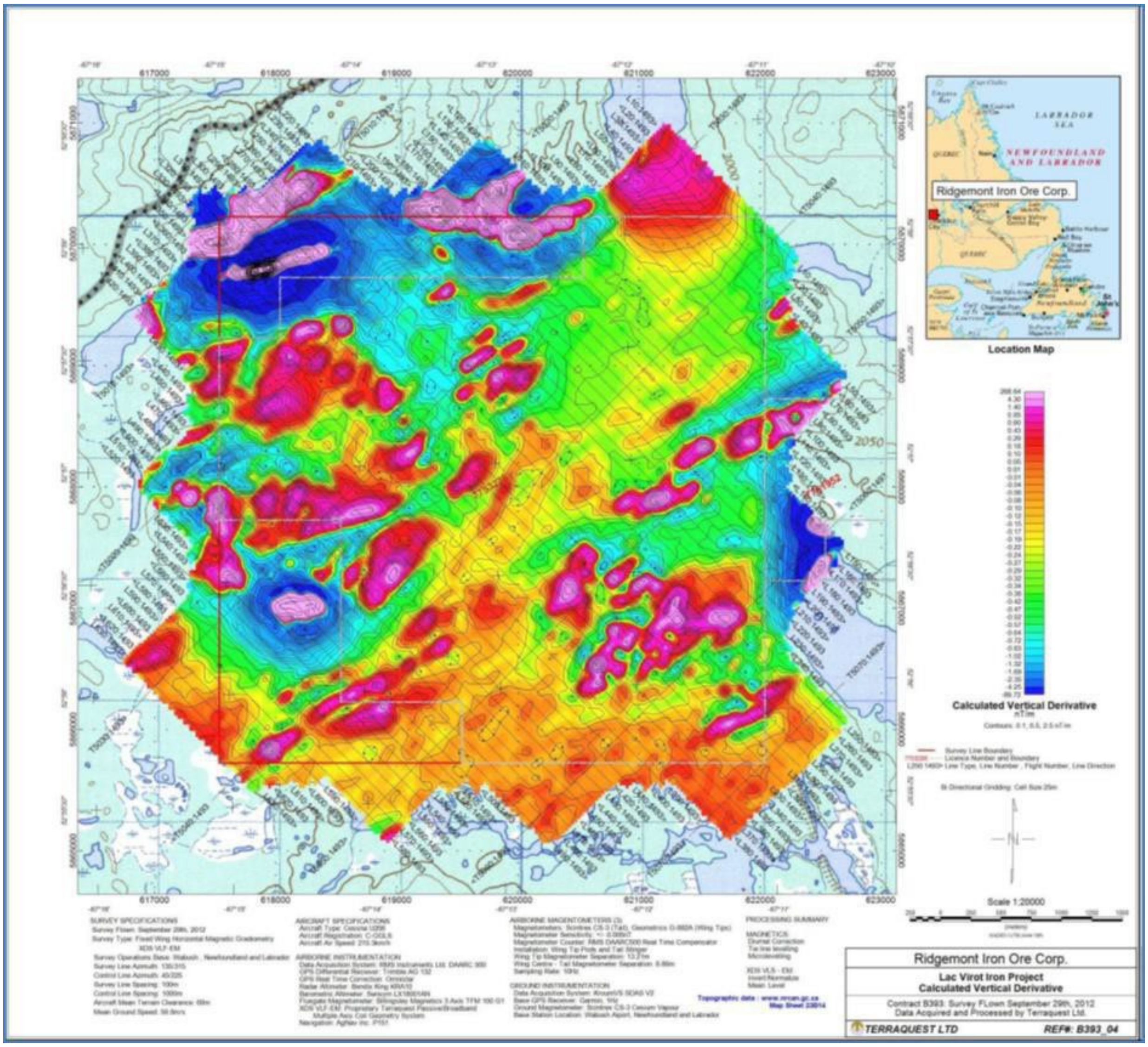
The database was merged with the database from B357 and reprocessed to create merged grids of total magnetic field, calculated first vertical-magnetic derivative and broadband XDS VLF-EM grids of the LINE, ORTHO, and VERTICAL components.

Figure 6-9: Total Magnetic Field 2012



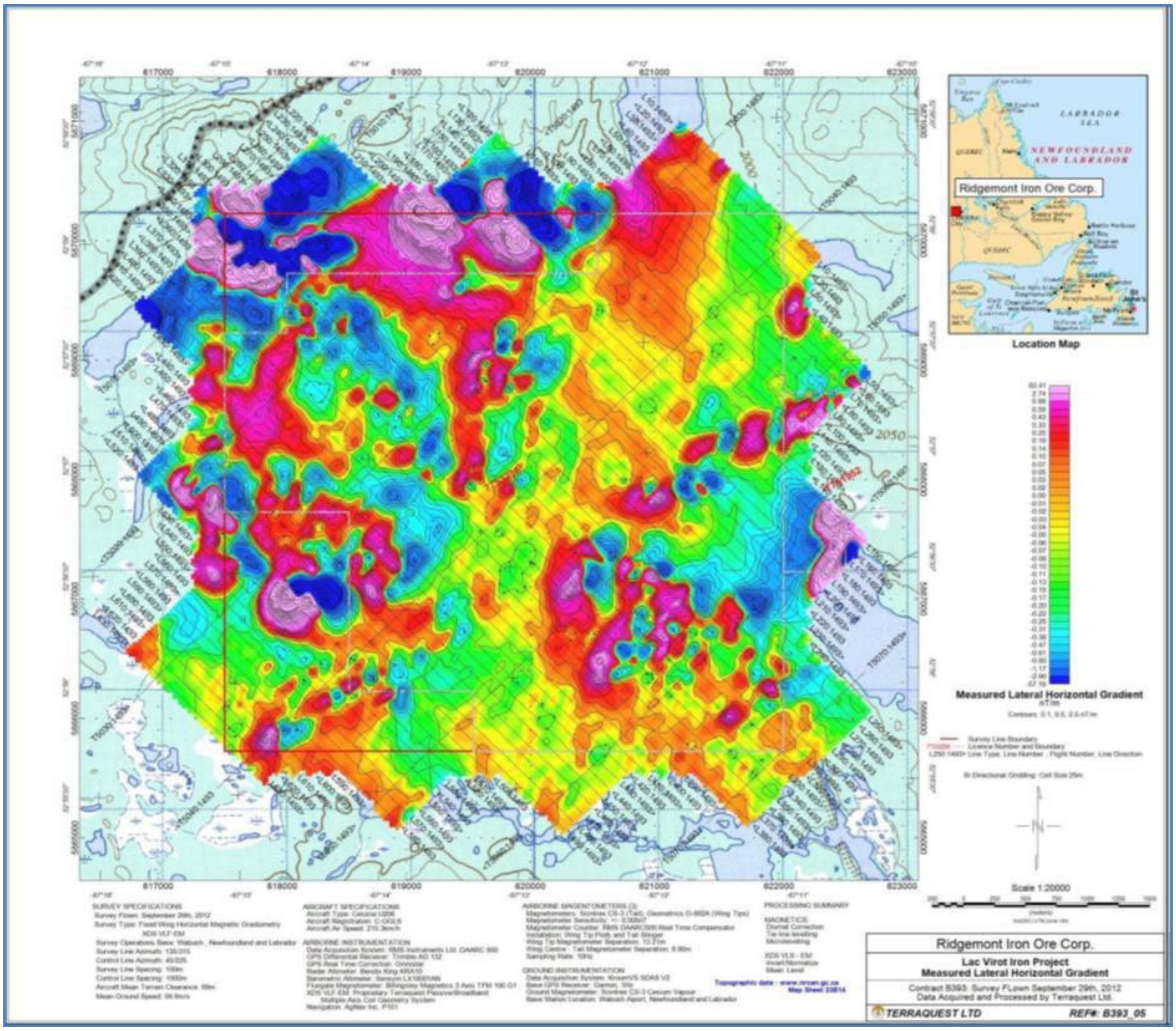
Source: Fugro Airborne Surveys (2012).

Figure 6-10: Calculated 1st Vertical Magnetic Derivative 2012



Source: Fugro Airborne Surveys (2012).

Figure 6-11: Measured Lateral Horizontal Magnetic Gradient



Source: Fugro Airborne Surveys (2012).

6.7 Historical Drilling

The only indication of early drilling on the Property is a fence of three pre-1985 drill holes shown on 1:100,000 scale Geological Map 85-25, Geology of the Lac Virot Area, Labrador/Québec jointly published by the Department of Mines and Energy, Newfoundland and Labrador and the Departments of Energy, Mines and Resources and Regional Economic Expansion, Government of Canada. The holes are in the south-central part of the current Property along the southern boundary of Claim 018613M. According to the geological map all three holes encountered units belonging to Archean basement or the Asuanapi Metamorphic Complex. No logs, analyses, or certificates pertaining to these drill holes are in the public domain. It is unlikely that the drill core was retained and stored, but this should be checked with the Department of Mines and Energy in Newfoundland.

The summer and fall 2012 Lac Virot exploration program was completed by Major Drilling Group International for Ridgemont Iron Corp.; it consisted of 11,713 m in 42 holes. The program was designed to follow up on positive, coincident airborne magnetic anomalies and surface sampling anomalies discovered in 2011. The drilling was focused in the southern and eastern portions of the property.

The program started in June and continued through October 2012 using two helicopter-portable drill rigs. The project was operated out of Labrador City. Heli-Boreal provided air support for the program, and Major Drilling was contracted to conduct the drilling. All samples were collected from sawn HQ-sized half-core cut on site in its Labrador City facility. Split drill-core samples have been sent to independent contractor SGS Minerals Services in Lakefield, ON, for analysis. Total iron analysis is performed using X-ray fluorescence (XRF), and the magnetic component is determined by Satmagan magnetic analysis. Iron oxide titration analysis permits an estimation of hematite. Standards, blanks, and duplicate assays are included at regular intervals in each sample batch submitted from the field as part of an ongoing quality assurance and quality control (QA/QC) program. Drill holes coordinates and locations are presented in Table 6-6 and shown on Figure 6-12. Table 6-7 presents significant mineralized intervals from 2012 historical drilling data.

Table 6-6: 2012 Drill Hole Coordinates

Hole ID	Easting	Northing	Elevation	Azimuth	Depth	Dip
LV-001	622736	5867369	585.7	330	251.0	-60
LV-001A	622736	5867369	585.7	330	147.8	-60
LV-002	623061	5867529	600.2	330	291.0	-60
LV-003	623598	5867823	607.0	330	314.3	-60
LV-004	624167	5868104	626.0	330	330.0	-60
LV-005	624452	5867838	614.1	330	206.0	-52
LV-006	624520	5868319	605.7	330	204.0	-52
LV-007	625507	5868565	595.8	330	249.0	-50
LV-008	625853	5868928	604.1	330	201.0	-50
LV-009	624114	5868211	625.3	330	180.0	-50
LV-010	626002	5869286	611.0	330	146.0	-50
LV-011	624255	5868002	621.1	330	319.0	-50
LV-012	628362	5874893	628.2	330	488.0	-60
LV-013	624377	5867732	610.7	330	386.0	-50
LV-014	628467	5874726	622.0	330	368.0	-75
LV-015	622703	5868594	640.0	330	297.0	-50
LV-016	628290	5875060	632.4	330	457.6	-60
LV-017	622617	5868756	640.0	330	222.0	-50
LV-018	628766	5875103	631.7	330	392.0	-60
LV-019	628610	5875210	638.0	330	396.0	-60
LV-020	629378	5875570	654.7	330	390.0	-60
LV-021	629271	5875758	658.0	330	360.0	-60
LV-022	628834	5874891	624.9	330	409.0	-60

Hole ID	Easting	Northing	Elevation	Azimuth	Depth	Dip
LV-023	629520	5875341	665.6	330	353.0	-60
LV-024	629837	5875922	679.9	330	414.0	-60
LV-025	629726	5876074	672.2	330	371.0	-60
LV-026	629698	5876226	667.9	330	209.0	-60
LV-027	629977	5875763	686.0	330	319.0	-60
LV-028	627597	5874722	634.2	330	317.0	-60
LV-029	627390	5874960	630.8	330	222.0	-60
LV-030	626921	5874318	630.0	330	15.1	-60
LV-031	628758	5873206	609.2	330	108.0	-60
LV-032	627663	5874532	631.7	330	276.0	-60
LV-033	628405	5873083	610.0	330	204.0	-60
LV-034	626920	5874319	630.0	330	222.0	-52
LV-035	630663	5874556	674.3	330	125.0	-55
LV-036	631030	5874402	655.0	330	234.0	-55
LV-037	630656	5874068	659.0	330	211.0	-55
LV-038	632340	5872898	649.8	330	201.0	-55
LV-039	632602	5872324	638.8	330	303.0	-55
LV-040	632189	5872425	636.3	330	212.0	-55
LV-041	632380	5872399	637.0	330	197.0	-55
LV-042	632174	5872947	646.2	330	195.0	-55

Source: Ridgemont Iron Ore (2012)

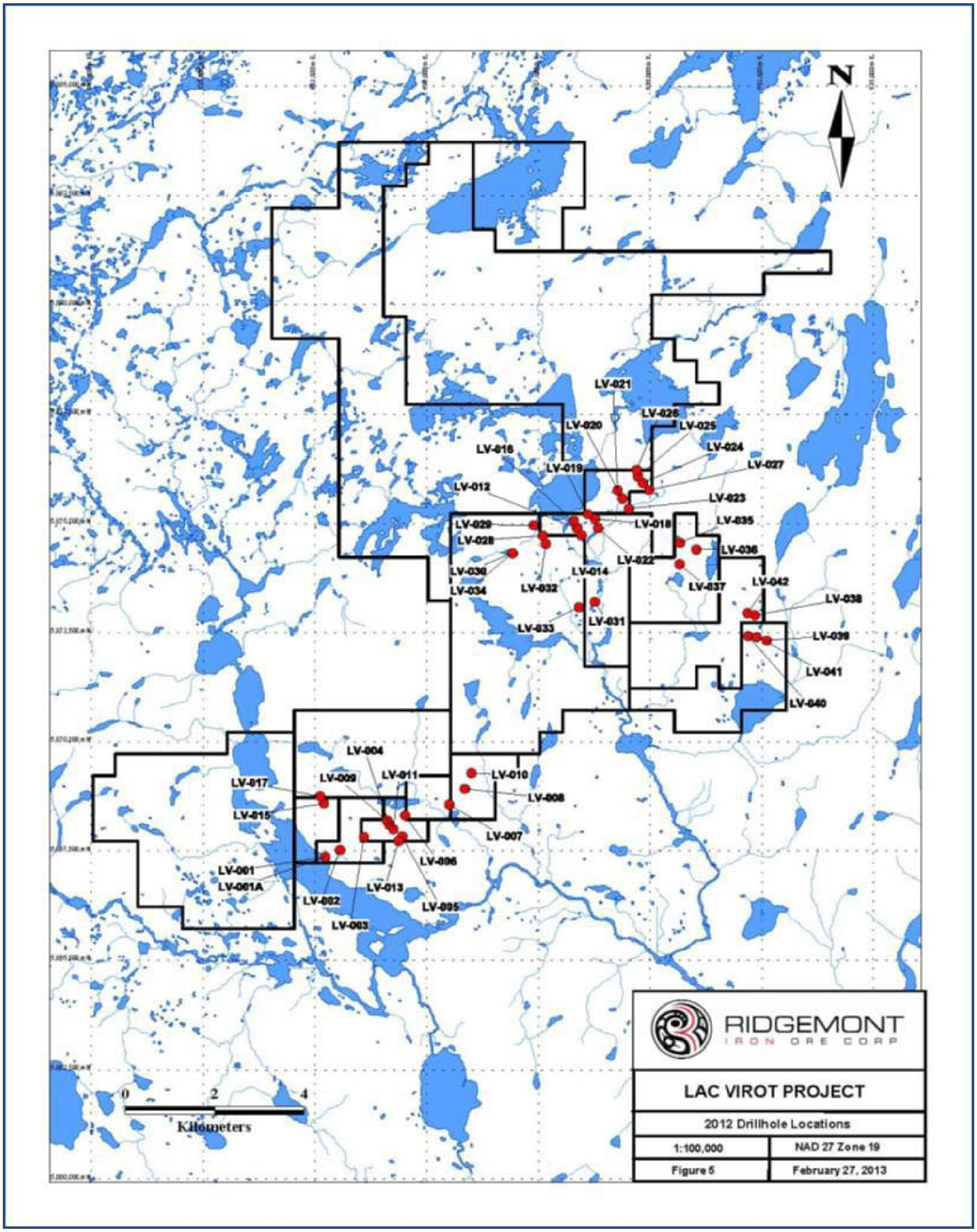
Table 6-7: Significant Mineralized Intervals from 2012 Historical Drilling Data

Hole Name	From (m)	To (m)	Length (m)	Tag	Fe (%)
LV-001	79.0	116.0	37.0	16	31.12
LV-001	238.0	251.0	13.0	17	23.90
LV-002	49.0	61.0	12.0	16	25.11
LV-002	127.0	140.0	13.0	16	21.91
LV-002	215.0	223.0	8.0	17	20.34
LV-003	19.9	81.0	61.1	16	21.98
LV-003	174.5	188.0	13.5	16	19.58
LV-003	207.0	218.4	11.4	17	22.69
LV-004	4.5	106.3	101.8	16	24.72
LV-004	199.3	214.4	15.1	16	23.96
LV-006	36.4	37.9	1.5	16	28.54
LV-007	91.1	99.7	8.6	14	19.89
LV-007	105.0	110.5	5.5	14	15.11
LV-008	45.0	51.0	6.0	15	21.12

Hole Name	From (m)	To (m)	Length (m)	Tag	Fe (%)
LV-008	65.8	72.6	6.8	14	15.72
LV-008	82.5	93.7	11.2	14	17.92
LV-008	137.5	142.6	5.1	14	19.38
LV-009	3.9	30.6	26.7	16	24.36
LV-009	132.0	147.2	15.2	16	25.64
LV-010	11.0	15.6	4.6	15	21.39
LV-010	53.0	89.0	36.0	14	22.35
LV-011	74.8	185.6	110.8	16	25.60
LV-011	277.1	295.8	18.7	16	25.66
LV-012	143.0	158.0	15.0	12	13.16
LV-012	205.4	330.9	125.5	8	25.59
LV-012	450.0	466.9	16.9	11	23.33
LV-013	265.0	276.0	11.0	16	14.09
LV-013	282.0	305.0	23.0	16	22.97
LV-013	312.7	344.0	31.3	16	25.61
LV-016	296.3	337.5	41.2	11	20.37
LV-016	350.6	359.0	8.4	11	19.46
LV-016	436.0	444.0	8.0	13	23.69
LV-018	188.8	218.0	29.2	8	22.53
LV-018	276.7	296.0	19.3	8	22.20
LV-018	324.9	331.4	6.5	10	21.42
LV-019	36.7	93.2	56.5	8	21.75
LV-019	383.2	396.0	12.8	11	19.07
LV-020	92.0	142.2	50.2	8	17.69
LV-020	161.0	217.4	56.4	8	17.19
LV-021	6.6	37.2	30.6	8	25.88
LV-021	50.4	68.0	17.6	8	16.10
LV-022	215.5	229.9	14.4	9	10.13
LV-022	313.9	321.8	7.9	8	9.66
LV-022	389.2	399.2	10.0	8	24.08
LV-023	107.0	116.0	9.0	8	21.92
LV-024	17.4	87.0	69.6	8	24.22
LV-024	283.0	361.2	78.2	8	25.78
LV-025	15.5	39.0	23.5	8	23.53
LV-025	91.6	187.5	95.9	8	24.21
LV-026	86.0	98.9	12.9	8	20.53
LV-027	57.8	66.9	9.1	8	24.42
LV-027	100.7	123.0	22.3	8	23.02
LV-028	99.5	216.1	116.6	8	25.54

Hole Name	From (m)	To (m)	Length (m)	Tag	Fe (%)
LV-031	75.0	83.4	8.4	1	25.40
LV-032	162.0	168.0	6.0	8	22.23
LV-032	186.0	198.0	12.0	8	28.90
LV-032	214.7	221.7	7.0	8	16.96
LV-033	11.0	81.9	70.9	1	23.39
LV-034	33.7	52.3	18.6	8	17.14
LV-034	62.4	69.0	6.6	8	22.36
LV-034	108.4	115.0	6.6	8	17.75
LV-034	145.4	152.7	7.3	8	16.03
LV-035	1.0	44.5	43.5	5	20.56
LV-035	121.9	123.6	1.7	4	20.01
LV-036	6.8	14.0	7.3	7	16.37
LV-036	29.4	63.0	33.6	6	12.93
LV-036	146.6	163.8	17.2	5	12.49
LV-036	179.0	191.6	12.6	5	16.99
LV-037	4.5	11.7	7.2	7	17.62
LV-037	23.4	65.7	42.3	6	14.82
LV-037	82.6	108.7	26.1	5	18.10
LV-038	38.4	83.8	45.4	2	11.92
LV-039	168.3	195.1	26.8	2	11.76
LV-039	214.5	266.3	51.8	2	19.70
LV-040	13.9	39.0	25.1	2	14.41
LV-041	81.3	105.9	24.7	2	15.04
LV-041	133.2	138.6	5.4	3	31.26
LV-042	3.3	15.9	12.6	2	12.91

Figure 6-12: Lac Virot Drilling Map 2012



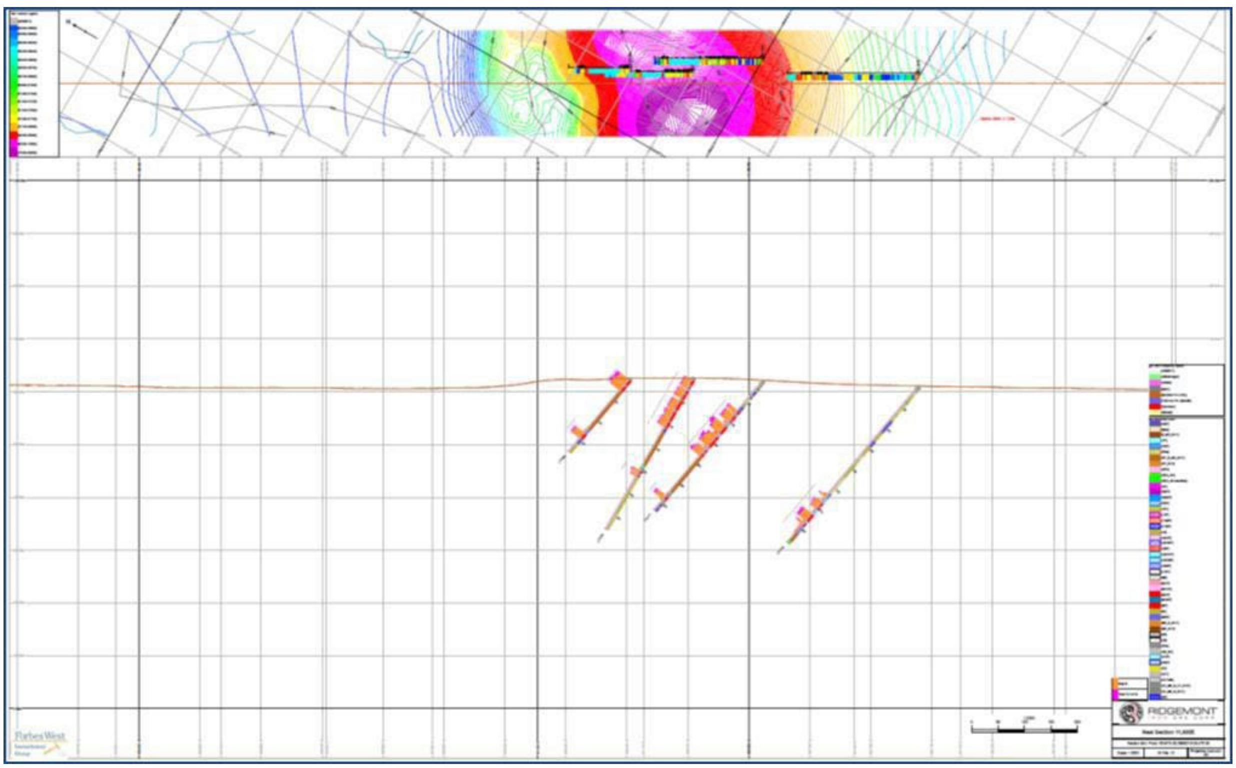
Source: A.C.A Howe International Ltd. (2012).

The exploration to date indicates that the Sokoman Formation maintains the typical 100 to 140 m true thickness throughout the district. The proportion of iron oxides is generally less and in more isolated bands. Quartz-Fe-Silicate-Fe-carbonate facies are dominant.

The airborne geophysical data interpretations have been very useful in delimiting the faulted D1 folds and the late NW-trending fault offsets. These were confirmed by drilling. The Sokoman folds are more extensive than marked in the surface maps, which is not surprising considering the amount of thin glacial cover on the property.

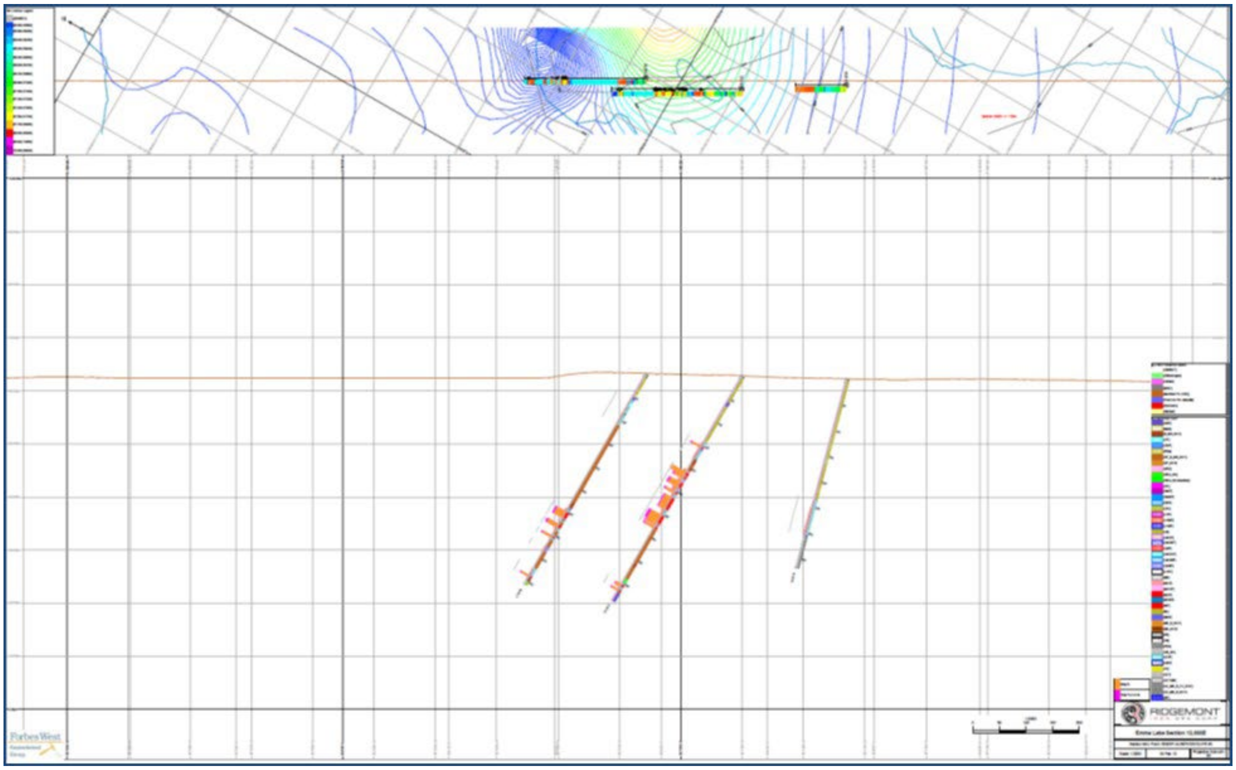
The several parallel anomalies plus drill results indicate the geometry of two parallel fold sequences. These likely represent one horizon that has been repeated by overturned nappe folding with some components eroded by glaciers. There may be repetition by thrust fault(s) parallel to the anomaly trend. Future exploration should focus on the interpreted fold noses as areas with potentially thicker iron oxide mineralization.

Figure 6-13: Neal Section, 12,000E



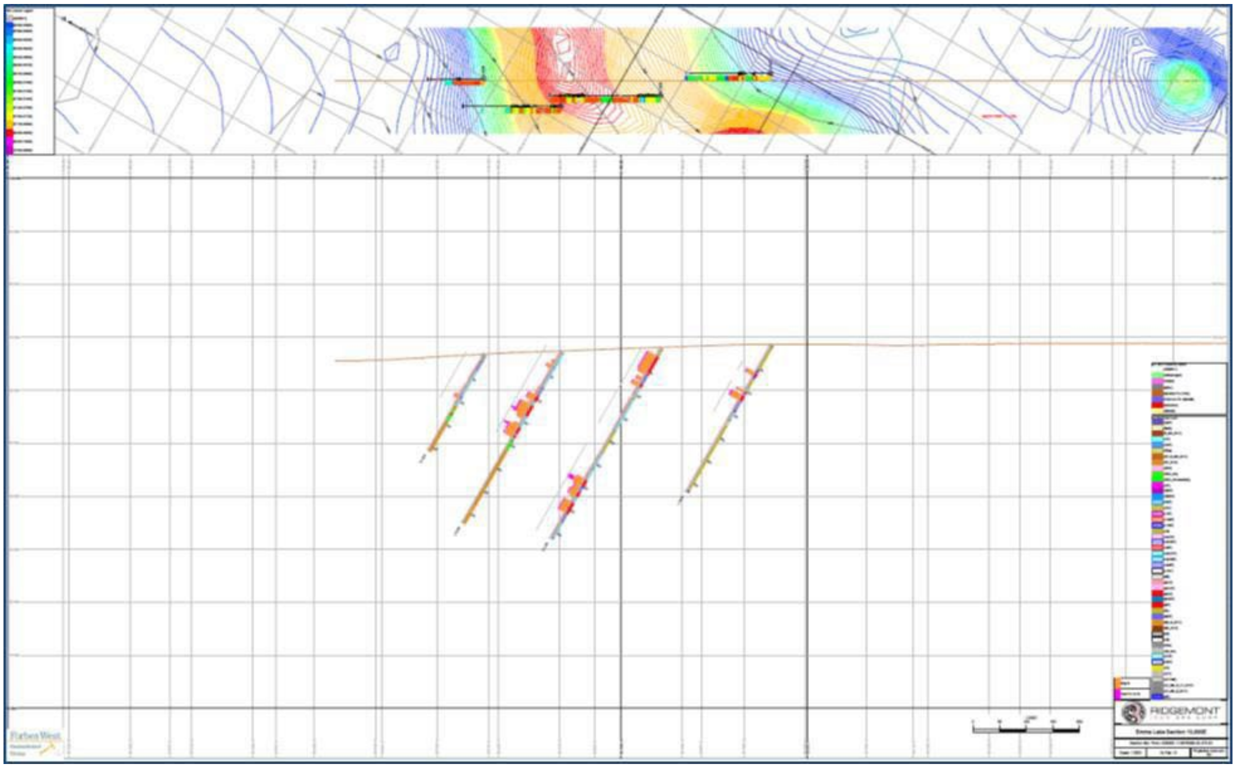
Source: Edward Lyons (2013).

Figure 6-14: Emma Lake Section, 12,000E



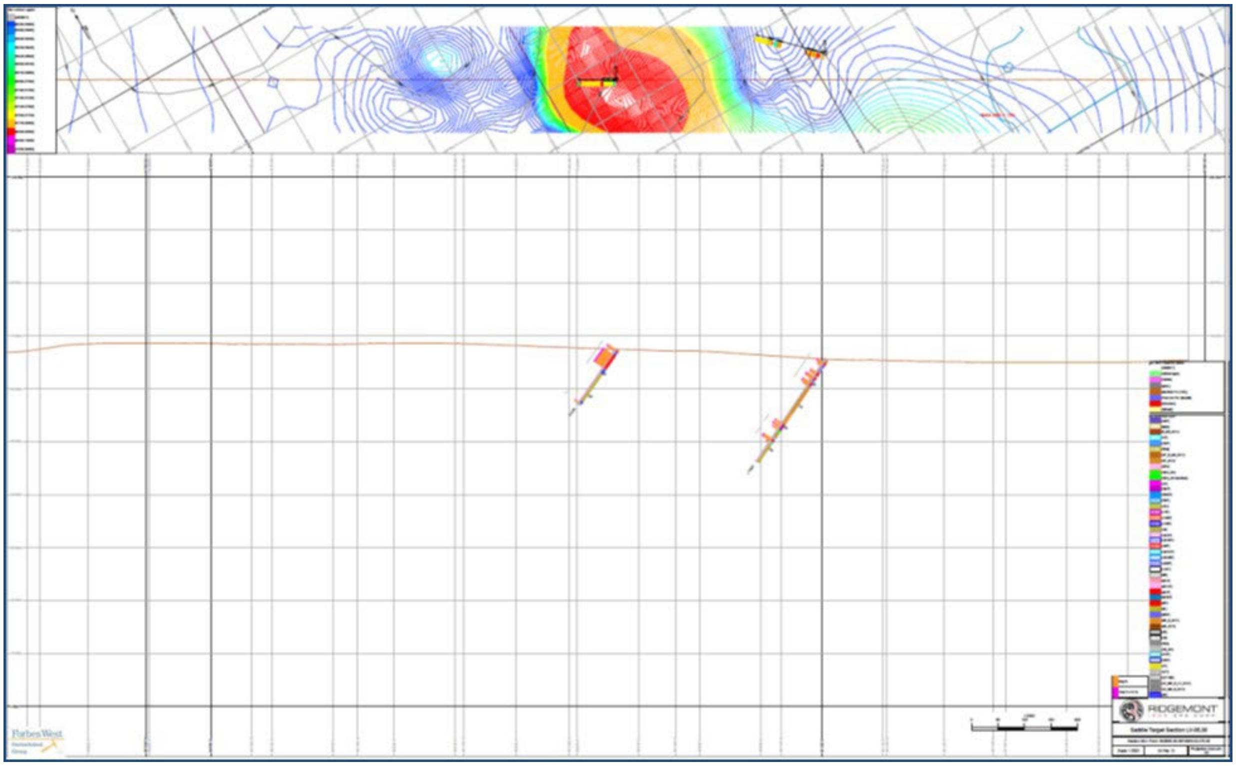
Source: Edward Lyons (2013).

Figure 6-15: Emma Lake Section, 13,800E



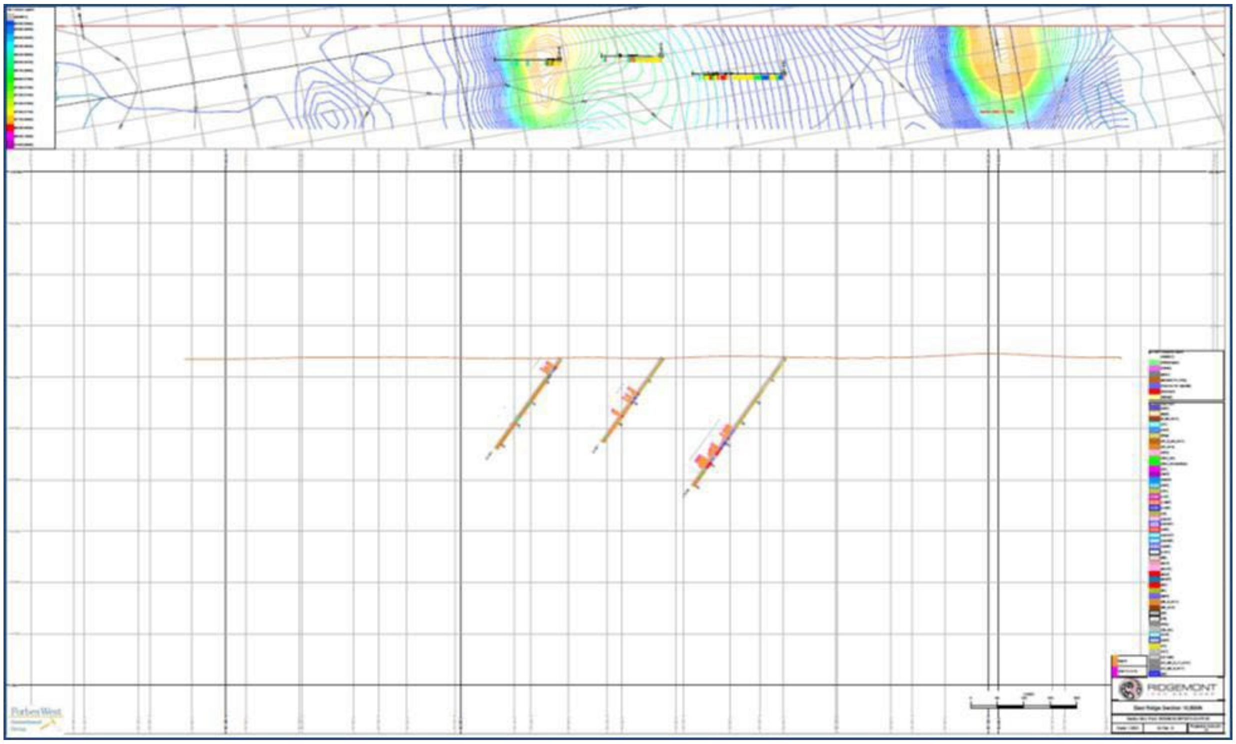
Source: Edward Lyons (2013).

Figure 6-16: Saddle Target Section LV-35, LV-36



Source: Edward Lyons (2013).

Figure 6-17: East Ridge Section, 10,500N



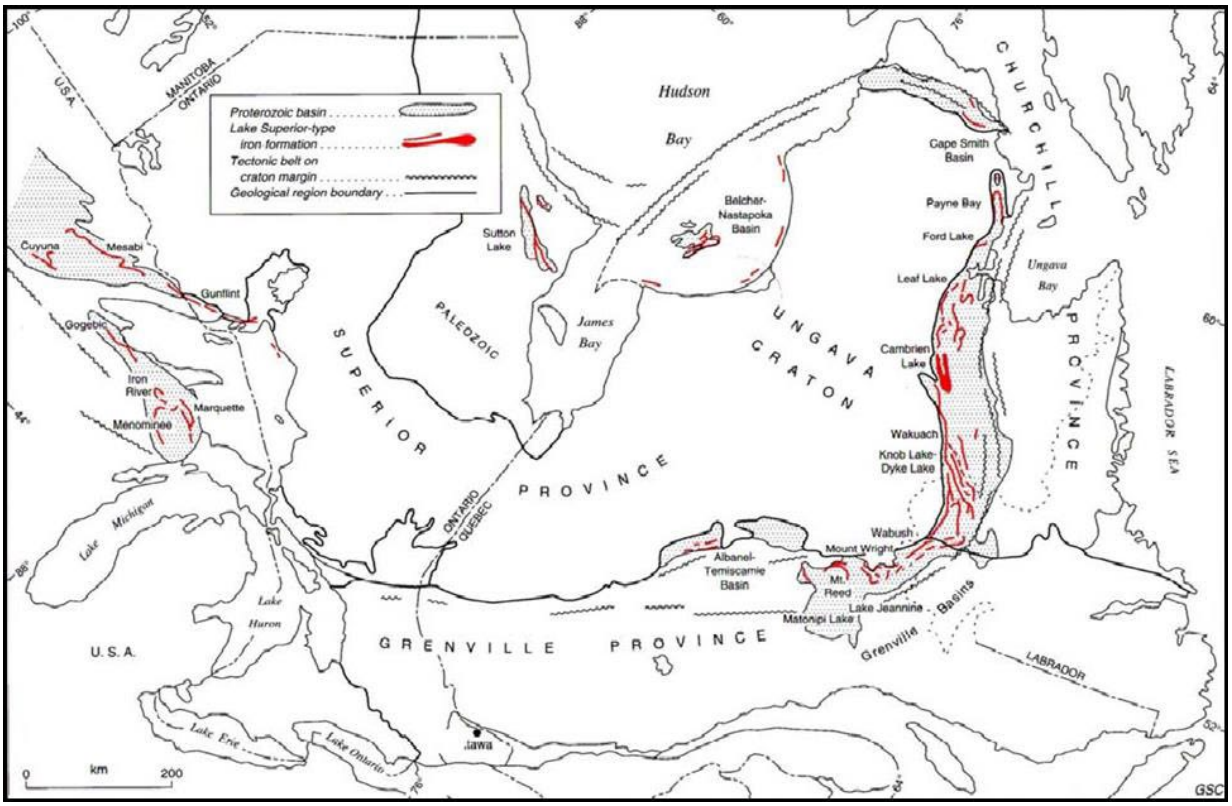
Source: Edward Lyons (2013).

7 GEOLOGICAL SETTING AND MINERALIZATION

7.1 Paleotectonic Setting

The Lake Superior-type iron formation (LSTIF) occurrences of the Lac Virot area lie in the Labrador–Québec Fold Belt or Labrador Trough, within the Sokoman Formation of the Lower Proterozoic (Aphebian) Knob Lake Group. The Sokoman Formation, one of the most extensive iron formation units in the world, extends along the eastern margin of the Archean Superior–Ungava craton for over 1,000 km (Figure 7-1) (Gross, 2009).

Figure 7-1: LSTIF Distribution Eastern North America (Gross, 1996)



Source: A.C.A Howe International Ltd. (2012).

The following paragraphs are quoted or summarized from Geological Survey of Canada (GSC) Open File 5987, “Iron Formation in Canada, Geology and Geochemistry,” by G.A. Gross, 2009.

> The Sokoman [Formation] iron formation along the western boundary of the Northern fold belt extends south from the isolated basin structures north of latitude 600N and west of Ungava Bay, through a series of interconnected paleobasins extending from the area west of Ungava Bay, to Lac Cambrien, Knob Lake - Schefferville and southwest across the boundary of the Grenville orogenic belt. The iron formation and associated metamorphosed

sedimentary rocks extend southwest into the Grenville orogenic belt where they are exposed in a series of isolated complex highly metamorphosed and deformed fold structures in the Wabush Lake, Mont Wright, Fire Lake, (Gagnon), Mount Reed, and Lac Jeannine areas, and beyond the Mouchalagane River through the Matonipi Lake area. (Gross, 2009)

Principal stratigraphic features of the fold belt are well developed and have been mapped in detail in the Knob Lake basin centered around Schefferville in the north central part of the fold belt. These Lower Proterozoic rocks overlying the granitoid gneisses of the platform or craton include a thick succession of thin-banded grey-green to maroon colored fine grained clastic sediments, argillite and slate [Attikamagen Formation] which is transitional upward to dolomite and chert breccia in local basins [Denault Formation] that are intercalated in places with argillite and the overlying quartz arenite beds. The Wishart [Formation] quartz-arenaceous sediments are the most consistent stratigraphic units throughout the fold belt and in many areas along its western margin lie unconformably on the basal gneissic rocks. In parts of the Knob Lake basin the quartz arenaceous sediments are overlain by thin irregular sinuous beds of white chert intercalated with black carbonaceous and ferruginous shale that mark the beginning of major deposition of iron and silica in the overlying Sokoman [Formation] iron formation.

The iron formation throughout the belt is predominantly magnetite-hematite-chert-quartz oxide lithofacies with well-defined and discrete thin-bedded cherty Fe-carbonate and Fe-silicate lithofacies units at its base and locally in upper parts of stratigraphic sections. The iron formation lithofacies are interbedded with the overlying black carbon-, carbonate-, and sulphide- bearing slate and shale units [Menihik Formation] which extend intermittently throughout the fold belt. The quartz-arenite, iron formation, and upper black slate are the most persistent stratigraphic units throughout the marginal basins and fold belt.

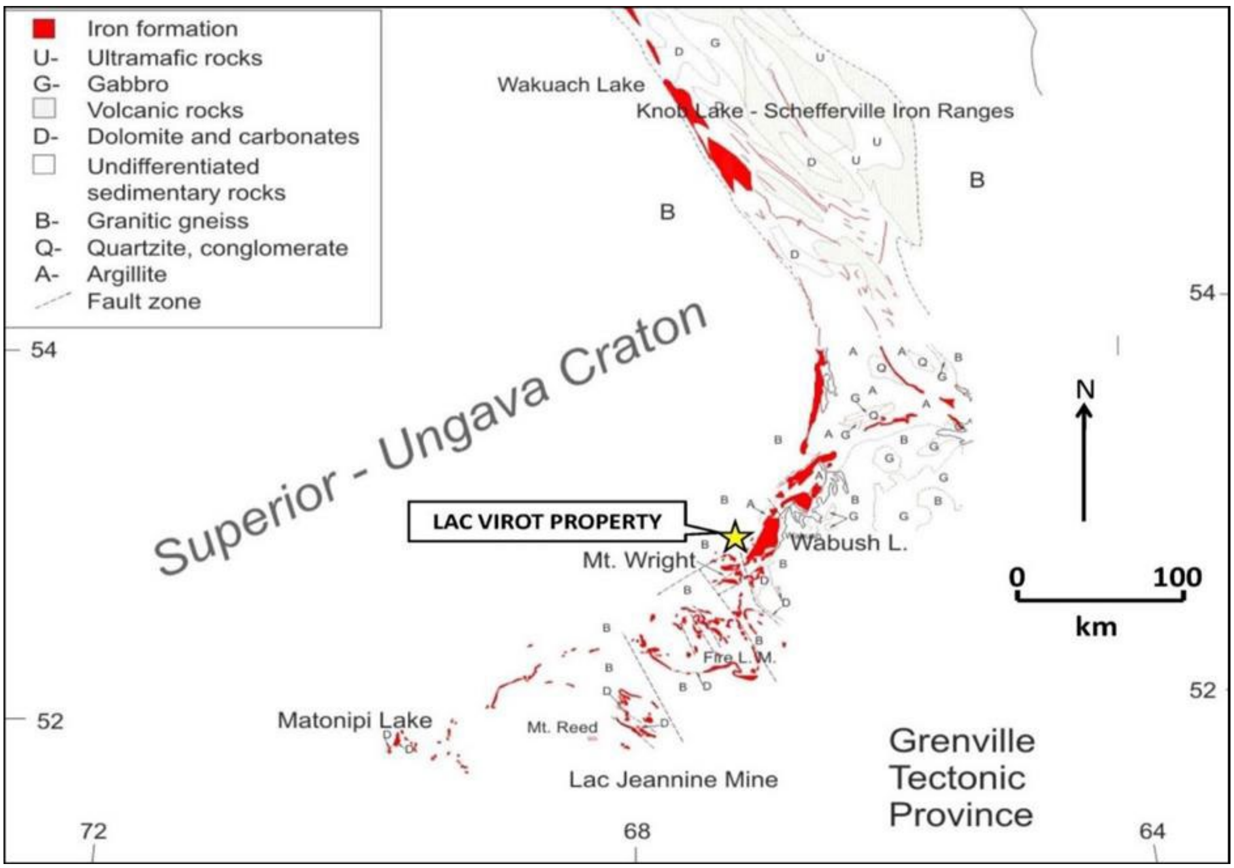
This succession of metasedimentary rocks is most extensively developed in the western parts of the marginal basins and fold belts. Eastward in the fold belt the metasedimentary rocks are associated with an increasing amount of intercalated tuff, lava flows, various extrusive volcanic rocks, and mafic and ultramafic dykes and sills.

Transitions from predominant shelf and platform environments for Lake Superior type iron formation to volcanic-arc tectonic environments hosting iron formation lithofacies of Algoma type are recognized in the northeastern and central parts of the fold belt.

Folded structural segments of Early Proterozoic iron formation and platform sediments extend southwest into the Grenville Province tectonic belt from Wabush Lake to the Matonipi Lake area. The sequence of rocks bearing iron formation in the Grenville Province north of Wabush Lake is offset to the northeast for a distance of about 15 km along a fault zone that marks the northeast margin of the Grenville Province tectonic belt and the Superior - Ungava Craton (Figure 7-2). Stratigraphic continuity of the Early Proterozoic Sokoman Iron formation and associated sediments has been traced southward across this marginal belt and through the Wabush Lake area. The rank of metamorphism in this succession of rocks increases to the southwest to amphibolite facies and to granulite facies in some areas close to the marginal belt. A second order of folding and deformation apparently related to the Grenville orogeny (1 - 0.8 Ga) has been imposed over the isoclinal fold and imbricate structures of the successions of Early Proterozoic iron formation and associated rocks that are traced southward into the Grenville tectonic belt.

The isolated structural segments of iron formation and metasediments mapped in the Grenville Province mark the southwestern continuity of iron formation deposition in the major shelf or platform basins along the southern margin of the early Superior-Ungava Craton or landmass. These structural segments occur in major tectonic domains delineated by prominent fault zones that were probably related to subduction along the Grenville boundary.

Figure 7-2: Southern Labrador–Québec Fold Belt (Modified after Gross, 1986)



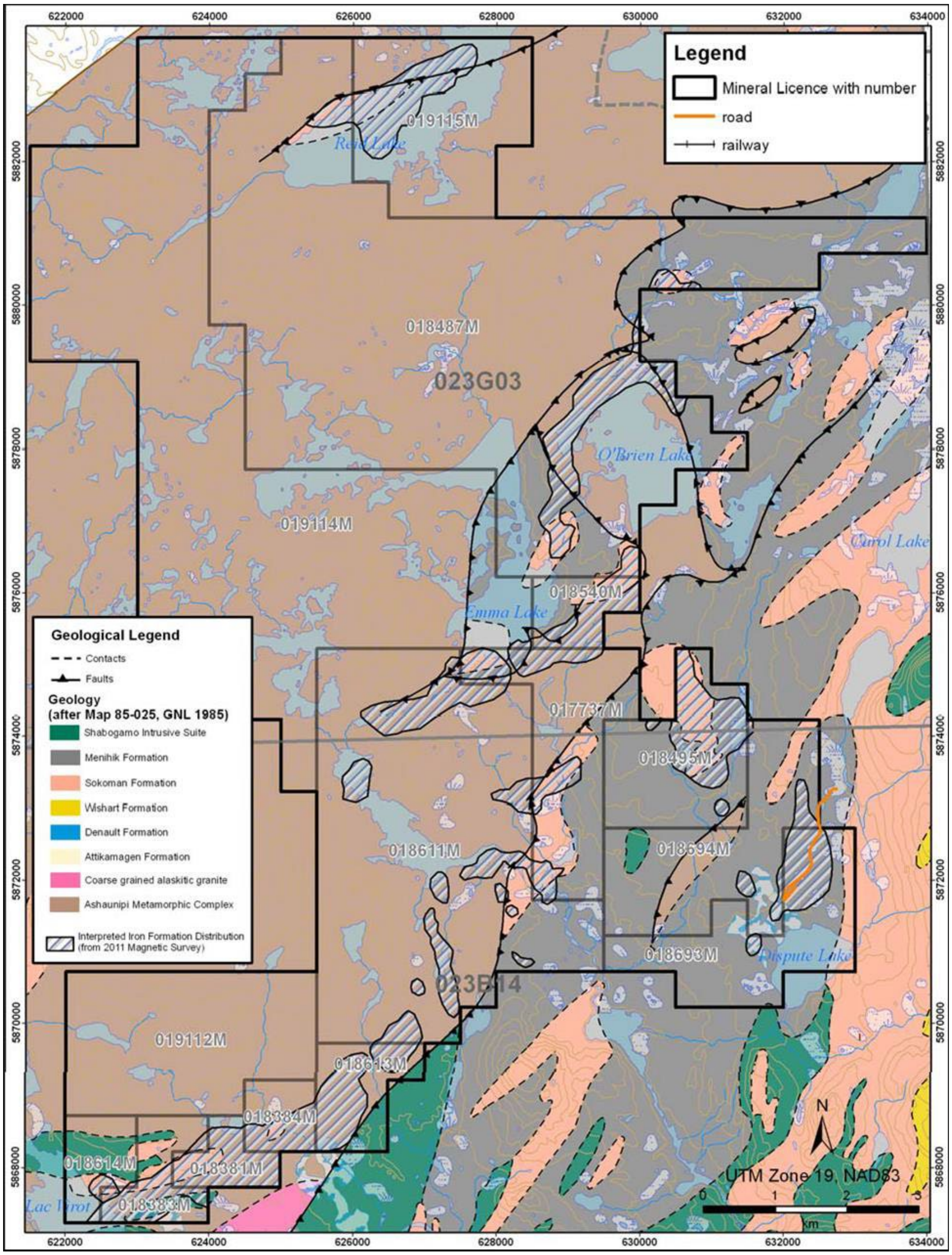
Source: A.C.A Howe International Ltd. (2012).

7.2 Regional Bedrock Geology

Several geological investigations have been conducted in the western Labrador region during the latter half of the 20th century. In the early 1950s predecessor companies to the current mine operators IOC and Wabush Mines completed widespread reconnaissance geological mapping in the region (Boyko, 1953; Neale, 1951). In addition, the GSC completed 1 inch = 4 miles-scale regional mapping in the mid-1960s (Farhig, 1967). In the 1980s, the Geological Survey of Newfoundland and Labrador published a preliminary 1:50,000 scale geological map of the area (Rivers, 1980) followed by coloured

1:100,000 scale map jointly produced by the Government of Newfoundland, Department of Mines and Energy and the Government of Canada in 1985 (Maps 85-25 & 85-28) (Figure 7-3).

Figure 7-3: Lac Virot Area Geology (NL/Canada Maps 85–25 & 85–28)



Source: A.C.A Howe International Ltd. (2012), validated by 2023, SGS.

The oldest rocks in the region are Archean migmatites and gneisses known as the Ashuanapi Metamorphic Complex (Unit 1). Although re-deformed and re-metamorphosed during the subsequent Grenville Orogenic episode and within the borders of the Grenville Province of the Canadian Shield, the Complex is part of the stratigraphic assemblage that comprises the extensive Superior/Ungava Craton. These units constitute the basement of the predominantly sedimentary lithologies of the Labrador Trough.

The Lower Proterozoic (Aphebian) platformal sedimentary and related rocks of the Labrador Trough are named the Knob Lake Group. Previously known as the Gagnon Group in the Grenville Province portion of the Labrador Trough, the Knob Lake Group was redefined to include the stratigraphic sections on both sides of the Grenville Front.

Deposition of the Knob Lake Group records the Aphebian (2.5 to 1.75 Ga) stratigraphy of the Labrador Trough; it probably began with deposition of fluvial red sands and gravels (Seward Formation) in a narrow elongate valley that was probably a continental rift valley. This was followed by shallow marine transgression, subsidence, and deposition of shales (Attikamagen Formation), carbonates (Denault Formation), sands (Wishart Formation), and iron formation (Sokoman Formation) in a shallow marine environment. Following deposition of the Sokoman Formation the basin subsided, resulting in the buildup of deep-water turbidites of the Menihik Formation. The final stage of Labrador Trough development saw the extrusion of a great thickness of mafic pillow lavas (Doublet Group) on its eastern margin (Rivers and Wardle, 1978). In the Wabush area all stratigraphic units have been deformed and metamorphosed during the development of the Trough or Labrador–Quebec Fold Belt, then further deformed and metamorphosed during the Grenville Orogenic episode.

The basal section of the Knob Lake Group in the western Labrador region comprises widespread quartzofeldspathic schist and gneiss of the Attikamagen Formation which occurs to the south and east but is not known to be exposed on the Lac Virot Property. An extensive tract of Denault Formation dolomitic and calcitic marble underlies the eastern shore of Wabush Lake and the southern shore of Julienne Lake, marking the upper limit of the Attikamagen Formation in that area. Quartzite of the Wishart Formation overlies the Attikamagen and Denault Formations along the western side of Wabush Lake, on the Julienne Peninsula, and the north side of Julienne Lake. Where present, the top of the Wishart Formation defines the footwall contact of the Sokoman Formation ironstones.

The Sokoman Formation conformably overlies the Wishart Formation on the west side of Wabush Lake and Julienne Peninsula, but elsewhere it sits on the Attikamagen Formation. The dominant lithological units are silicate-carbonate iron formation and oxide iron formation. Outcrops of iron formation around Goethite Bay, Julienne Lake and to a lesser extent on the Julienne Peninsula are excessively leached (Rivers, 1981).

The Menihik Formation, the youngest sequence of the Knob Lake Group in the western Labrador region, is composed of dark grey quartz-feldspar-biotite-graphitic schist with a well-developed schistosity and distinctive graphite porphyroblasts.

Finally, the assemblage is intruded by Middle Proterozoic (Helikian, 1.75 to 1.0 Ga) mafic intrusions of the Shabogamo Intrusive Suite. These occur as folded and contorted sill-like bodies in the Attikamagen Formation in the south-eastern part of the region.

7.3 Lac Virot Regional Tectonic Study

During the latter part of the 1970s through the 1980s the Government of Canada, Departments of Regional Economic Expansion and Energy, Mines & Resources and the Province of Newfoundland and Labrador Department of Mines & Energy conducted extensive regional geological mapping investigations throughout Newfoundland and Labrador. Aided by academic institutions including Memorial University of Newfoundland, the federal and provincial government programs resulted in significant advances in understanding the tectonics of the Grenville Province of southwestern Labrador and neighboring Québec.

The northern margin of the Grenville Province in southwestern Labrador is interpreted as a 20–30 km-wide ductile fold and thrust belt (Rivers, 1983). The area represents the boundary zone of a collisional orogen wherein older rocks of the Superior and Churchill Provinces and Lower Proterozoic sediments of the Labrador Trough comprise a Parautochtonous Belt of various thrust sheets—the Gagnon terrane (van Gool, et al., 1988).

Figure 7-4: Extensive Evidence of Folding and Thrusting

Source: A.C.A Howe International Ltd. (2012).

7.4 Lac Virot Property Geology

Most of the northern and western sector of the Lac Virot Property is underlain by basement rocks of the Ashuanipi Metamorphic Complex. Lithologies include quartzo-feldspathic migmatites, gneisses, and granitoid rocks representing reworked Archean Superior Province units.

The Wishart Formation of the Knob Lake Group is mapped to the east of the Lac Virot Property. During the current MPH work, a few exposures of clean quartzite were noted in the structurally complex Emma and O'Brien Lakes area. These possibly represent thrusted blocks of Wishart Formation that are juxtaposed with the Sokoman Formation.

The unit of primary importance with respect to iron exploration is the Sokoman Formation of the Knob Lake Group. Exposures of this formation are widespread throughout the Lac Virot Property as previously mapped by exploration groups, government and academic geologists.

Mineralogically the outcropping sedimentary units of the Sokoman Formation on the Lac Virot Property are relatively simple, consisting primarily of quartz and iron-bearing minerals including magnetite (Fe_3O_4) with lesser hematite (Fe_2O_3) or specularite in its coarse-grained form, and goethite ($Fe_2O_3.H_2O$). Variable amounts of iron are also present in silicates such as amphiboles (grunerite) and in carbonates such as ankerite ($Ca[Fe,Mg,Mn][CO_3]_2$).

Typically, the most economically significant iron formation units on the Property may be described as massive or banded quartz-magnetite-specular hematite schists that contain approximately 50% silica and 50% iron minerals by volume. The metamorphosed silica is predominantly medium- to coarse-grained granular in crystalline habit. The main iron oxide minerals are coarse- to medium-grained magnetite, medium-grained dull granular hematite and fine-grained earthy hematite-goethite-limonite. The banded units comprise alternating centimetre-scale bands of whitish lean ferruginous quartzite/chert and dark grey to black to blueish black quartz-magnetite-specular hematite schists.

A variant of the above unit typically contains in excess of 65% quartz and usually less than 20% total iron is referred to as lean-iron formation.

Parts of the Sokoman Formation on the Property (notably the Emma Lake sector) contain what has been described by early workers as quartz-grunerite schist or gneiss. Jackson (1954) describes the unit:

> The rock varies from massive nearly pure grunerite to quartz, to thin banded with bands alternatively of quartz or grunerite. The grunerite varies from white to light straw colour to waxy brown on the fresh surface to darker brown on the weathered surface.
>
> Occasionally an outcrop is composed almost entirely of rosettas to ¾ inch in diameter of rosettas.

Disseminated crystals of magnetite are generally present, while an occasional carbonate band or magnetite rich band is also present.

The Sokoman Formation is stratigraphically overlain by garnet-biotite-graphite schists of the Menihik Formation.

Figure 7-5: Massive Quartz-Magnetite-Speculite Hematite Schists

Source: A.C.A Howe International Ltd. (2012).

Figure 7-6: Banded Iron Formation

Source: A.C.A Howe International Ltd. (2012).

Figure 7-7: Quartz-Grunerite-Carbonite Schist

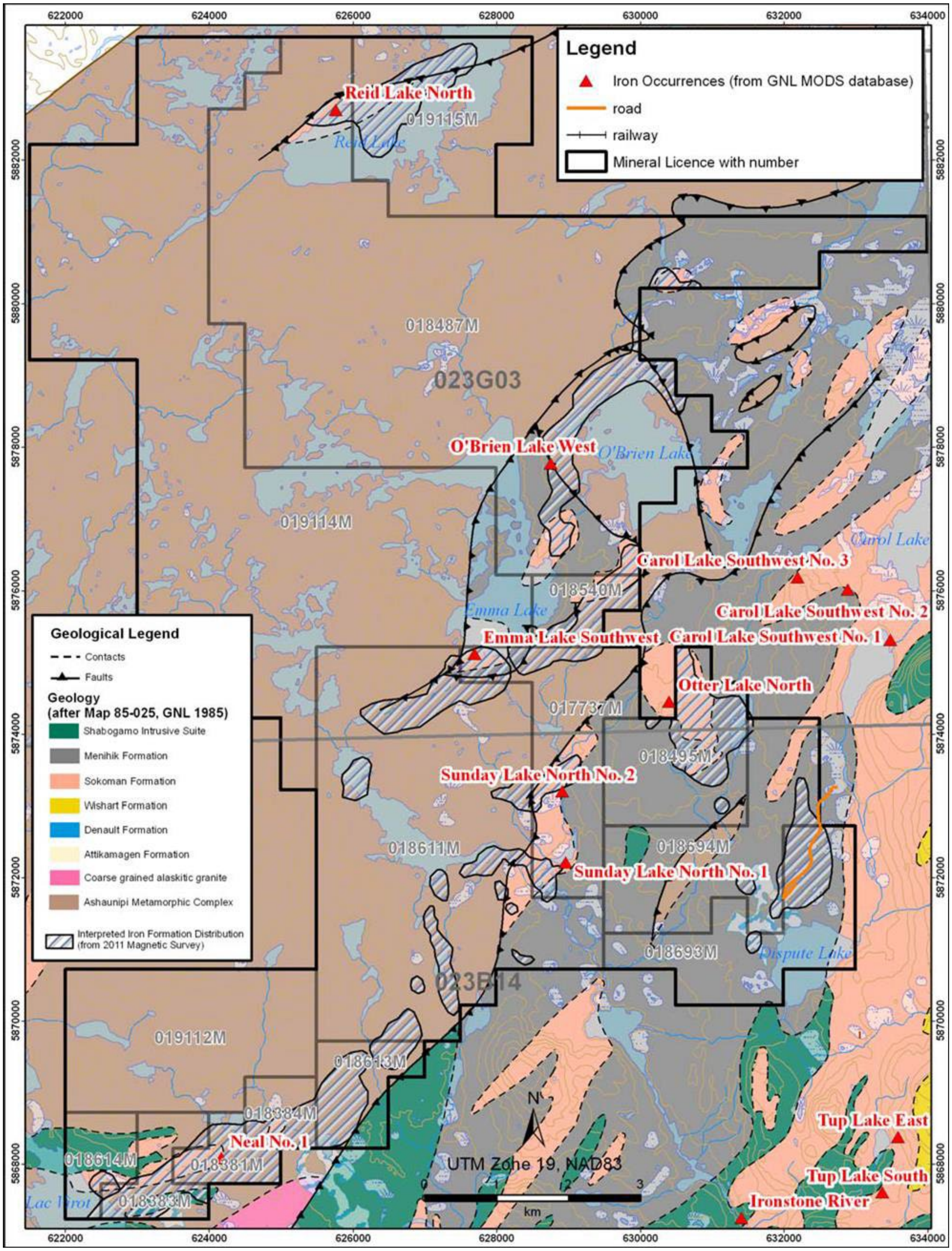
Source: A.C.A Howe International Ltd. (2012).

The extensive thrusting noted in Section 7.4 is particularly evident in the Emma Lake area. This is atypically quite well exposed compared to other parts of the Sokoman-Menihik-Ashuanipi assemblage on the Lac Virot Property. The area was mapped in some detail by the Centre for Earth Resources Research at Memorial University in 1989–1990 (Brown, et al., 1991). A total of 13 thrust sheets were mapped across a section a little more than 1 km wide. Although MPH did not map in such detail, it is attested that the structural juxtaposition of units is not overstated by the Memorial University workers.

Figure 7-8: Thrust Related Shearing Near Emma Lake

Source: A.C.A Howe International Ltd. (2012).

Figure 7-9: Lac Virot Iron Occurrences



Source: A.C.A Howe International Ltd. (2012).

8 DEPOSIT TYPES

This section has been extracted from previous technical reports, for the most part Gross (2009).

A basic understanding of iron deposits worldwide and in particular those of North America is set out in the landmark work that spanned over 50 years of G. A. Gross's work, entitled "Iron Formation in Canada, Genesis and Geochemistry," GSC Open File 5987 (Gross, 2009). This section is for the most part based on Open File 5987 and earlier publications of G. A. Gross.

Iron is the fourth most abundant element in the Earth's crust and is first overall in the planet as a whole. It is most widely distributed in the common rock-forming silicate minerals. Iron oxide minerals—hematite (Fe_2O_3), goethite ($Fe_2O_3.H_2O$), limonite (~2 ($Fe_2O_3.3H_2O$), magnetite (Fe_3O_4), ferrous iron carbonate, and siderite ($FeCO_3$)—are the principal components of the commercially recoverable iron ores. Over 90% of the world's iron resources are hosted by siliceous ferruginous sediments known as "iron formation," which occur within host strata known as "stratafer sediments." Stratafer sediments formed in a broad spectrum of sedimentary environments and are widely distributed throughout the geological record from Early Archean to Recent time.

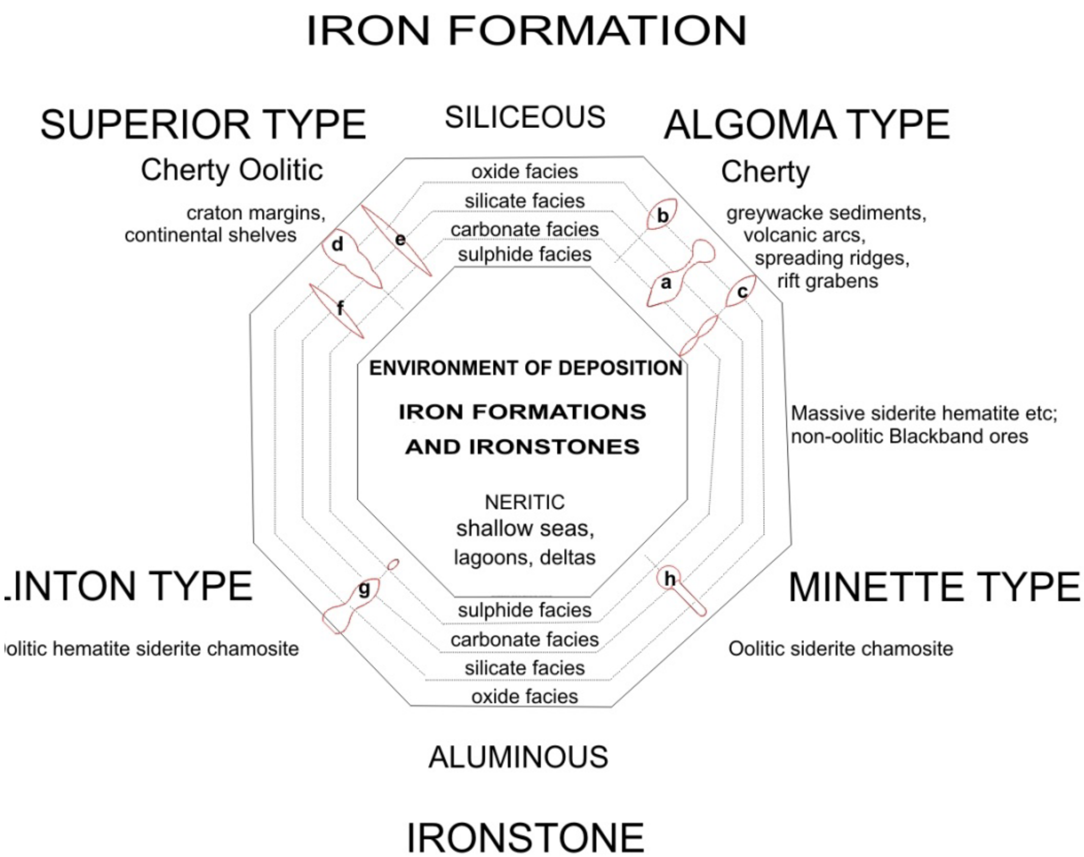
Sedimentary iron deposits are classified as Iron Formations with four main types: Superior (or Lake Superior), Algoma, Clinton, and Minette (Figure 8-1). All of Canada's current primary iron ore production is Superior type, which comes from four mines in the Labrador West–Fermont region of Newfoundland and Labrador, and one mine in Québec. Historically, the Algoma and Clinton types also accounted for significant production share.

In terms of temporal range, iron formation spans the full spectrum from Archean to recent. However, in terms of economic significance the Superior type is linked to the Paleoproterozoic Era, the Algoma type to the Archean Era, and in North America the Clinton type to the Lower Paleozoic. Paleotectonic settings (Figure 8-2) vary from platformal basins and craton margins for Superior and Clinton type deposits to tectonic (greenstone) belts for the Algoma type (Gross, 2009).

The mineral deposits of the Labrador City and Wabush area belong to the Superior-type iron formation, although in this area, post consolidation tectono-metamorphic events would make the term meta-Superior-type more appropriate.

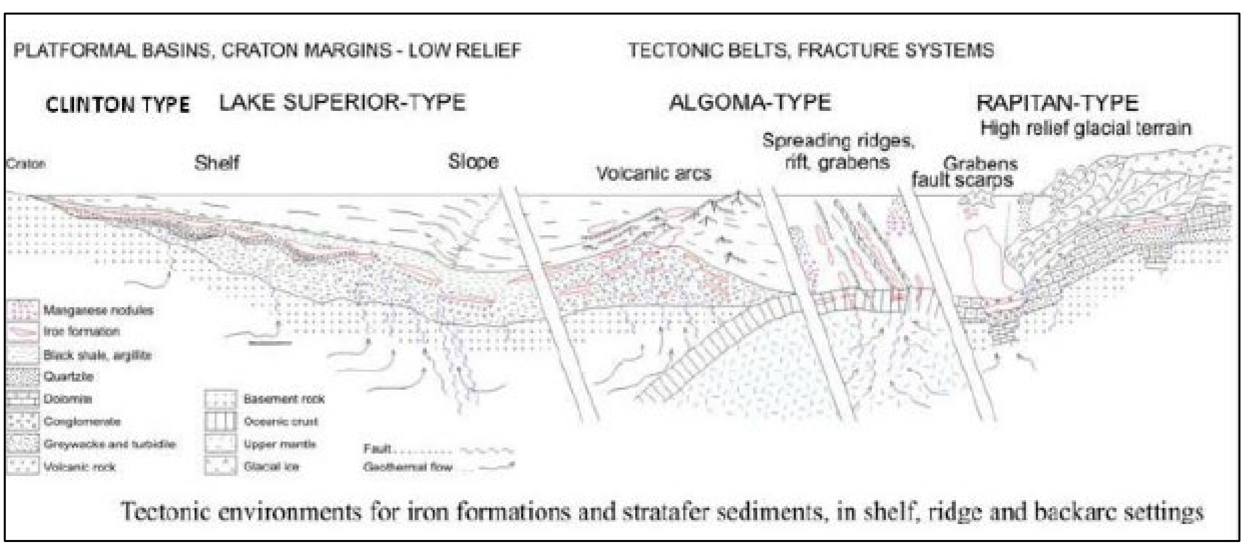
The Sokoman Formations; metamorphosed areas within the Grenville Province, that typify the Lac Virot Property host four major iron ore mining operations that account for over 99% of Canada's iron ore production. Within this geological setting the best initial exploration target definition tools in poorly exposed areas are geophysical techniques, notably magnetic and gravity surveys, followed by extensive drilling. Due to widespread glacial drift cover, muskegs, and water bodies, target testing is primarily done by diamond drilling, with lesser, though important, inputs from outcrop mapping and channel sampling, and mechanical trenching, mapping, or channel sampling.

Figure 8-1: Iron Ore Deposit Terminology (Gross, 1965)



Source: A.C.A Howe International Ltd. (2012).

Figure 8-2: Tectonic Environments for Iron Formations (Gross, 2009)



Source: A.C.A Howe International Ltd. (2012).

9 EXPLORATION

Red Paramount has yet to complete surface exploration on the Property.

10 DRILLING

A campaign of 22,000 m of drilling is schedule to be started in 2025.

11 SAMPLE PREPARATION, ANALYSES, AND SECURITY

As illustrated in the NI 43-101 Technical Report on the Lac Virot Property for Ridgemont Iron Corp. in 2012, all of the 2011 program surface rock samples were submitted to the Activation Laboratories Limited (Actlabs) preparation facility in Goose Bay, NL, for sample preparation and then to the Actlabs laboratory in Ancaster, ON, for analysis. The Ridgemont samples from the 2012 drilling program were submitted to SGS in Lakefield, Ontario.

All of the 2012 drilling program samples were submitted to the SGS Lakefield Laboratories (SGS Lakefield) preparation and analysis facility in Lakefield, Ontario for sample preparation and analysis. The Ridgemont samples from the 2012 drilling program were submitted to SGS in Lakefield, Ontario. SGS Lakefield is an independent commercial laboratory accredited to ISO 17025 for specific registered tests. SGS Lakefield is accredited in North America and has a large scope of accreditation in the minerals industry.

11.1 2011 Rock Sample Preparation

All rock 2011 samples were prepared for analysis at the Actlabs preparation laboratory in Goose Bay, NL RX1-GB sample preparation protocols are as follows:

- Upon delivery to the Goose Bay laboratory, samples are unpacked, sorted and entered in a Laboratory Information Management System (LIMS). Clients can track samples from sample reception and logging through to preparation, analysis and reporting.
- As a routine practice with rock and core, the entire sample is crushed to a nominal −10 mesh (1.7 mm), mechanically split (riffle) to obtain a representative sample, then pulverized to at least 95% −150 mesh (105 µm).
- As a routine practice, Actlabs will automatically use cleaner sand between each sample.
- Quality of crushing and pulverization is routinely checked as part of Actlabs quality assurance program. Randomization of samples in larger orders (>100) provides a means to monitor data for systematic errors. The data are resorted after analysis according to sample number.

11.2 2011 Analyses

All 2011 rock samples were analyzed at the Actlabs laboratory located in Ancaster, ON.

11.2.1 Actlabs Analysis 4C-XRF Fusion-MPH Package

To minimize the matrix effects of the samples, the heavy absorber fusion technique of Norrish and Hutton (1969) are used for major element (oxide) analysis. Prior to fusion, the loss on ignition (LOI), which includes water, carbon dioxide, sulphur, and other volatiles, can be determined from the weight loss after roasting the sample at 1,050°C for two hours. The fusion disk is made by mixing a 0.5 g equivalent of the roasted sample with 6.5 g of a combination of lithium metaborate and lithium tetraborate, with lithium bromide as a releasing agent. Samples are fused in platinum crucibles using an automated crucible fluxer, and automatically poured into platinum molds for casting. Samples are analyzed on a Panalytical Axios Advanced wavelength dispersive XRF.

The intensities are then measured, and the concentrations are calculated against the standard G-16 provided by Dr. K. Norrish of CSIRO, Australia. Matrix corrections were done by using the oxide alpha–influence coefficients provided also by K. Norrish. In general, the limit of detection is about 0.01 wt% for most of the elements.

Table 11-1: Actlabs Code 4C Fusion-XRF, Detection Limits

Oxide	Detection Limit
SiO_2	0.01
TiO_2	0.01
Al_2O_3	0.01
Fe_2O_3	0.01
MnO	0.001
MgO	0.01
CaO	0.01
Na_2O	0.01
K_2O	0.01
P_2O_5	0.01
Cr_2O_3	0.01
LOI	0.01

Source: Ridgemont (2012).

MPH requested that the iron, manganese and phosphorous analytical results be reported as total iron, manganese and phosphorous instead of their oxides.

Table 11-2: Actlabs Code 4C FUsion-XRF, MPH Package Detection Limits

Oxide	Detection Limit
SiO_2	0.01
TiO_2	0.01
Al_2O_3	0.01
Fe	0.007
Mn	0.0008
MgO	0.01
CaO	0.01
Na_2O	0.01
K_2O	0.01
P	0.0005
Cr_2O_3	0.01
V_2O_5	0.003
LOI	0.01

Source: Ridgemont (2012).

11.3 2011 QA/QC

The author is not aware of any QA/QC done on the 2011 rock samples.

During the two 2011 field programs, MPH collected all the rock samples. These were representative grab or composite chip samples for the specific sample locations. MPH personnel collected the samples, which were continuously in their possession until hand delivered to the Actlabs preparation facility in Goose Bay, NL, for preparation.

11.4 2012 Drill Core Samples

SGS has no direct records of how the samples were collected and shipped to the SGS Lakefield laboratories. However, based on the proper storage conditions and a review of assay results, it is evident that the sample preparation conducted at the core shack in Wabush was performed adequately and in accordance with industry best practices. From observations at the core shack, the 2012 NQ core samples are half-cores, sampled, labelled and stored in core boxes . The author and present owner of the Property do not know the exact sample preparation (sample size reduction) at the SGS laboratory, but the presence of drums of sample rejects and pulps labelled to the samples returned from SGS indicate that the sample preparation was probably done in Lakefield. Lakefield sample preparation protocols are as follows:

SGS Code (WGH79) and sample preparation (SGS Code PRP89) which includes:

- Weighing samples and reporting weights
- Drying <3 kg, crushing to 75% passing 2 mm, using an agate bowl
- Splitting to 250 g
- Pulverizing to 85% passing 75µm.

As the core is generally homogenously mineralized, it was sampled in the mineralized intervals between 1 and 3 m (sometimes more) to an average of 2.5 m long, taking only ½ the core. New samples were started at lithological changes and in this case, the minimum sample interval was 0.5 m, mostly in unmineralized material. Samples were sent to the SGS Lakefield for analysis.

11.4.1 X-Ray Fluorescence Spectrometry, Titration

All samples were analyzed for iron group, meaning whole rock analysis by using X-rays Fluorescence spectrometry after a borate fusion (GO/GC/GT_XR F76V) for all major elements, Silicon Dioxide, Aluminum Oxide, Iron(III) Oxide, Calcium Oxide, Magnesium Oxide, Sodium Oxide, Potassium Oxide, Chromium(III) Oxide, Titanium Dioxide, Manganese(II) Oxide, Phosphorus Pentoxide, Vanadium Pentoxide, and Magnetic Fe (Satmagan).

All samples were analysed for Fe^{2+} as FeO by titration (GC_CLA01V). The sample is quickly cooled and the ferrous iron is titrated with a standardized solution of potassium dichromate resulting in the oxidation of the ferrous (Fe^{+2}) ion to the ferric (Fe^{+3}) ion. Endpoint is detected visually using barium diphenylamine sulfonate as the external indicator. Fe^{2+} as FeO is reported where the raw data as Fe^{2+}

is multiplied by 1.286. Manual data entry of the titration volume into the worksheet, data fed to LIMS with secure audit trail.

11.4.2 Satmagan

All 2012 core samples were analyzed for SATuration MAGnetic Analysis (Satmagan) analytical method. The Satmagan method was designed specifically to measure the magnetite content of iron ores and has been in general use for over 40 years.

The Satmagan analytical method measures the total magnetic moment acting on a small, approximately 1.2 cm^3 pulverized sample by applying a strong-enough magnetic field to saturate the magnetic component of the sample while measured within a known vertical magnetic spatial gradient. The instrument is calibrated to standards of known magnetite content and is more accurate and reliable than measurements based on magnetic susceptibility. An average grain size greater than 150 µm (100 mesh) provides accurate measurements. For finer materials, the Satmagan gives slightly lower readings, so a different calibration curve is required. The range of measurement is 0% to 100% by magnetite weight with reproducibility of 0.2% and precision of less than 0.4%. Operating temperature range of the instrument is +10°C to +40°C (+50°F to +100°F).

11.5 2012 (QA/QC)

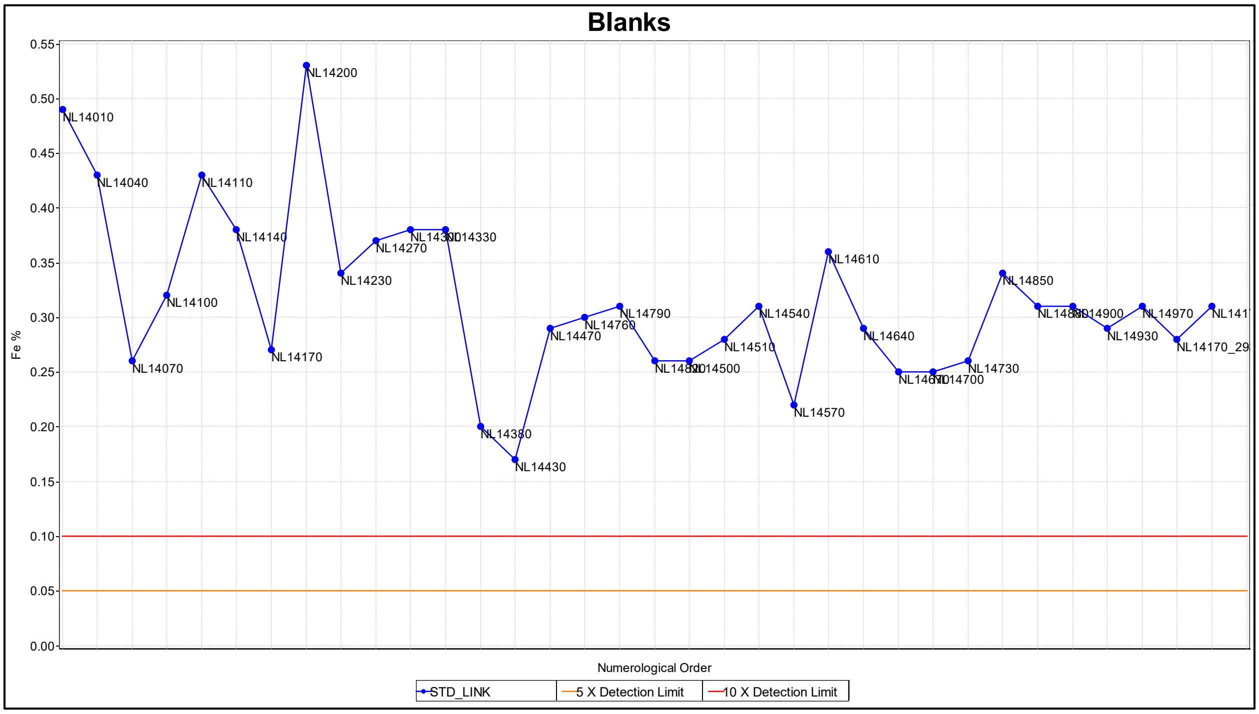
11.5.1 Blanks 2012 (QA/QC)

As part of a QA/QC procedure, the previous owner inserted blanks, standards, and duplicates on a regular basis during the 2012 drilling campaign (43 diamond drill holes). This procedure includes the systematic addition of certified standards, blanks, and duplicates in the assayed core.

A total of 35 blank samples, composed of coarse pure white quartz sand, were systematically inserted during drilling, logging, and sampling to monitor potential contamination. The assay results confirm that there are no anomalous iron values, indicating the integrity of the sampling process. While all iron values are above the 0.1% detection limit, as shown in the graph below, one outlier at approximately 0.5% stands out within the blank sample batch. This isolated deviation does not suggest systematic contamination but will be further assessed to ensure accuracy and consistency in quality control procedures

SGS's opinion is that all results (Figure 11-1) including the 0.53% Fe fall well below any anomalous iron values and can be discarded as a warning or a failure blank value.

Figure 11-1: Distribution of Blank Samples used for the 2012 Drilling Campaign (Fe%)



11.5.2 Standards 2012 (QA/QC)

Two types of standards were used (SCH-1 and FER-4). Thirty-one standards were sent to SGS Lakefield laboratory—15 SCH-1, 16 FER-4. The SCH-1 and FER-4 standards certificates highlighting the expected values and range of deviations (averages and standard deviations) were taken from the Natural Resources Canada website.

SCH-1 shows a minimum value of 60.30% Fe, a maximum of 61.35% Fe and an average of 60.71% Fe. Thus, all SCH-1 standards fall within a narrow range. As seen in Figure 11-2, one sample falls out of the warning range (+2σ). Further investigation is warranted; however, it is not considered to be a major flaw.

FER-4 shows a minimum value of 27.49% Fe, a maximum of 28.26% Fe, and an average of 28.04% Fe. All standards fall within a narrow range. As seen in Figure 11-3, one sample falls out of the warning range (-2σ). Further investigation is warranted; however, it is not considered to be major flaw.

Figure 11-2: Distribution of Standard SCH-1 used in the 2012 Drilling Campaign

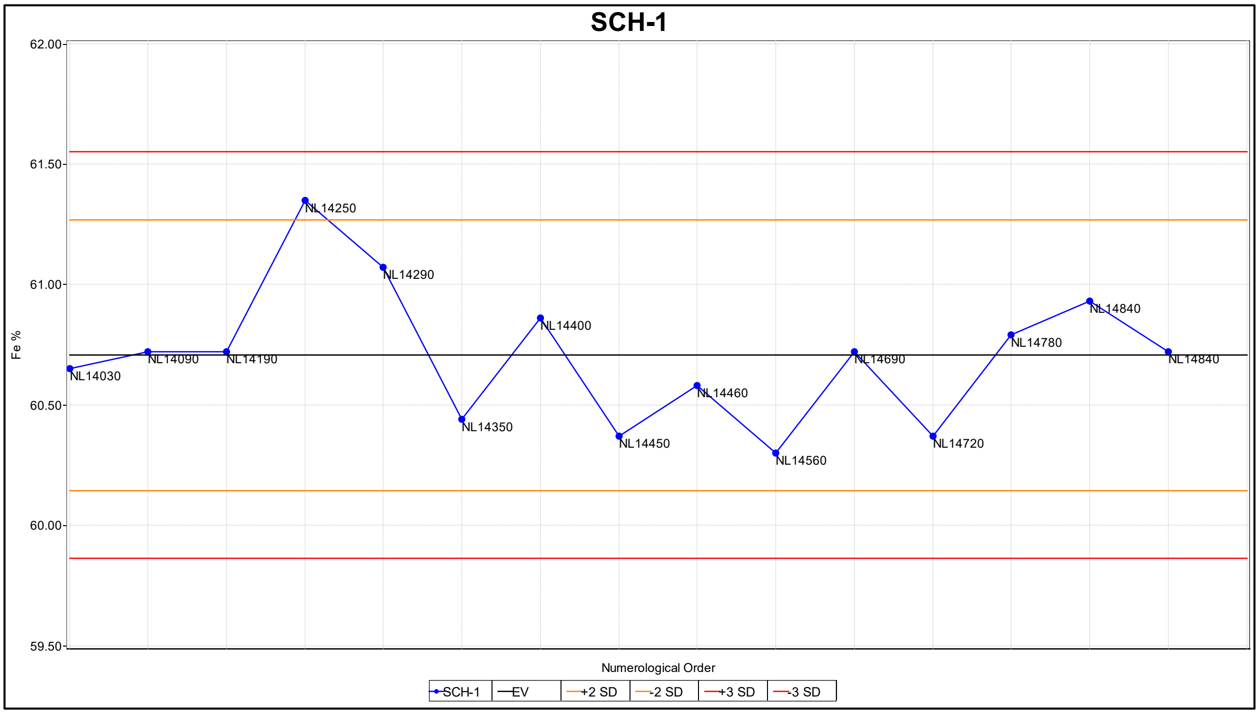
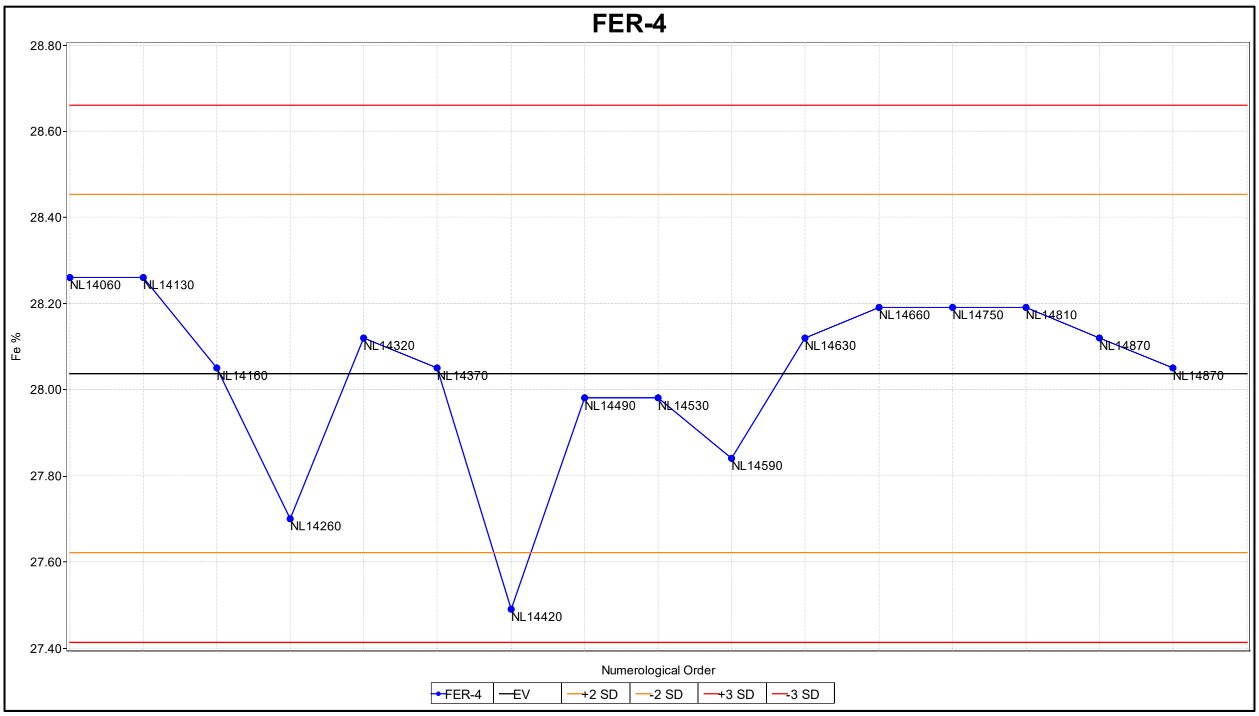


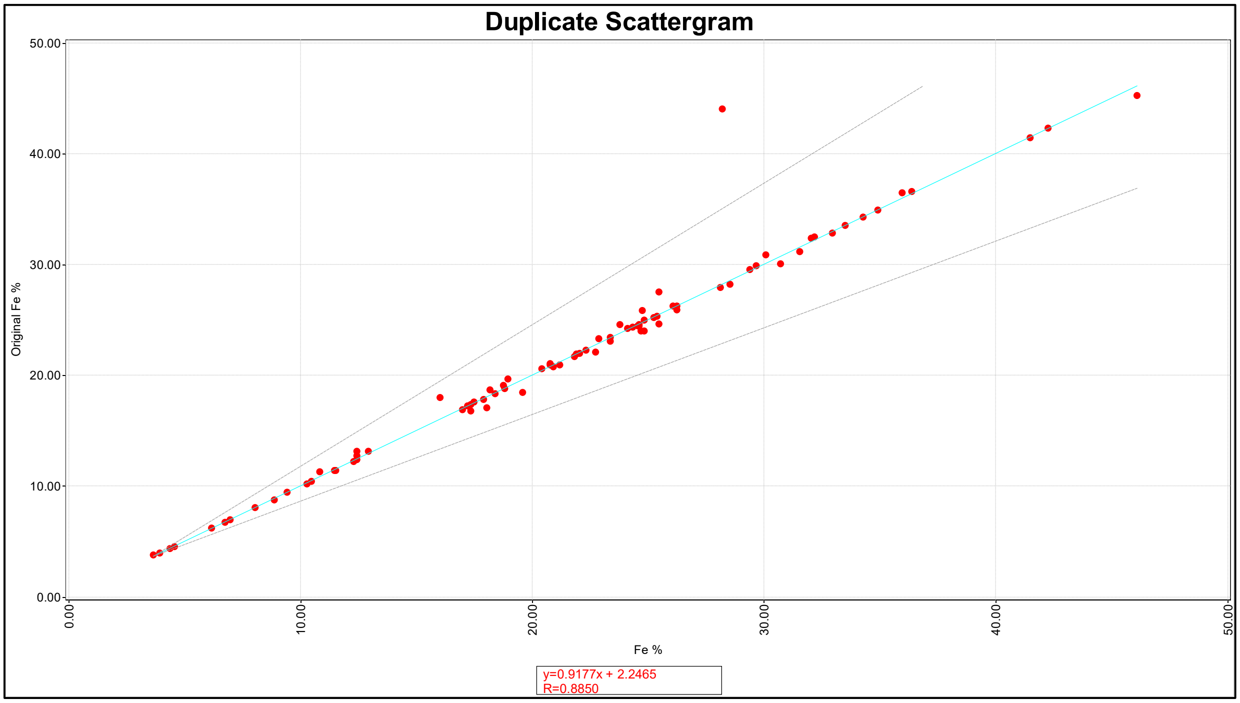
Figure 11-3: Distribution of Standard SCH-1 used in the 2012 Drilling Campaign



A total of 83 duplicates was analyzed (Figure 11-4). The slope of the regression line and the correlation coefficient are fairly close to unity, indicating a good reproducibility of the results.

It is the QP's opinion that the QA/QC done on the 2012 drilling program is adequate and within accepted limits; and that it is suitable for Mineral Resource estimates.

Figure 11-4: Sample Duplicate vs. Original Assays Fe%



12 DATA VERIFICATION

12.1 2011 Exploration Program

The 2011 exploration program for Lac Virot Property was conducted by MPH and Iron One (the property owner at the time) included data verification confirmation of existence of historical sites along with a basic regime for ensuring that the data collected during the current program meets industry standards for precision and accuracy. In-laboratory blanks, standards and duplicate analyses were part of the laboratory procedure. Due to the early reconnaissance stage of exploration and considering that most samples were grab samples, MPH and Iron One did not consider necessary to include field duplicates, external standards, or blanks for the initial work program. The author did not review the 2011 exploration and QA/QC data.

The in-laboratory QA/QC included six standards, one blank and one duplicate. Values for selected elements for the iron standards and the duplicate sample are presented in Table 12-1.

Table 12-1: Selected In-Laboratory QA/QC Data

Sample No.	Analysis	SiO_2 %	Fe (Total) %	Mn %
328089	Original	59.19	26.615	0.1565
	Duplicate	58.43	26.07	0.1572
Std. MICA FE	Certificate	34.4	17.937	0.271
	Measured 1	34.45	17.727	0.2696
	Measured 2	34.29	18.000	0.2730
Std. IF G	Certificate	41.2	39.06	0.033
	Measured 1	41.56	39.007	0.0256
	Measured 2	41.15	38.980	0.0300

Source: Ridgemont (2012).

12.2 Previous Site Visits

The previous site visits by Howe outlined the presence of iron mineralization on site. Howe (2012) collected one sample (76792) during the 2012 site visit and only one mineralized exposure was examined in a cursory manner due to deep snow cover. Howe’s sample was taken from station MC-11-24 (Emma Lake) near where MPH collected a previous sample—328083 Location coordinates are UTM Zone 19N: 627435E, 5874985N (NAD83). This sample cannot be considered a field duplicate sample.

A comparison of the MPH and Howe samples is as follows (Table 12-2). The sites are from the same outcrop area but are separated by approximately 20 m. Both have significant total iron values.

Table 12-2: Comparable of MPH and Howe Samples, Site MC-11-24

Sample No.	Location (UTM NAD 83)			SiO_2 %	Fe %	Mn %	P %	TiO_2 %
	Easting (m)	Northing (m)	El. (m)					
328083	627417	5874987	636	12.29	60.50	0.294	0.009	0.003
76792	627435	5874985	-	46.70	34.00	0.751[1]	0.039[2]	0.03

Notes: [1]Mn) (MN content 77.4457%). [2]P_2O_5 (P content 77.425%).
Source: Ridgemont (2012).

Figure 12-1: Lac Virot View from South, 2021

12.3 2012 Drill Hole Data Verification

All drill-hole analysis data were reviewed and checked for possible errors by SGS. Any potential errors were flagged, and Red Paramount personnel gave acceptable explanations. In 2012 SGS verified the assay results in the database against data from assay lab certificates. More than 95% of all assay certificates were verified and corroborated from the database.

12.4 2023 Site Visit

Maxime Dupéré visited only the location of Lac Virot core logging, sampling, and storage facility in Wabush on February 13, 2023. Mr. Dupéré examined several drill cores and accompanying drill-logs and assay certificates. Assays were examined against drill core mineralized zones. Mr. Dupéré inspected the core-storage facilities. The Property area was covered in snow and wasn't accessible at the time.

During the February 13, 2023, site visit to the Lac Virot core logging, sampling, and storage facilities in Wabush, the inspection covered the cutting and sampling core, sample storage area, core storage areas, and office area. At the time of the visit, the facilities were closed and under care and maintenance, and the work path was briefly discussed. The QP is of the opinion that the Company's protocols, as described and documented, are adequate.

During the visit, selected mineralized core intervals from several diamond drill holes spanning drilling programs across the North, South, and Middle portions of the mineral deposit were examined. Drill logs, maps, cross-sections, assays, and assay certificates were reviewed against the drill-core mineralized zones. Core boxes for the reviewed drill holes were found to be properly stored—either racked in a secure warehouse or stacked on pallets in a secure yard—easily accessible and well labeled. Sample tags were present in the boxes, allowing for the validation of sample numbers and confirmation of mineralization in witness half-core samples from the mineralized zones.

As a result of the site visit, the QP was able to become familiar with conditions on the Property, was able to observe and gain an understanding of the geology and various styles mineralization, was able to verify the work done and, on that basis, can review and recommend to the Company an appropriate exploration program.

12.5 2024 Site Visit

Mr. Dupéré conducted a site visit on August 13, 2024, accompanied by Nico Porta, junior mining engineer for Red Paramount. No drilling campaign was ongoing at the time of the site visit.

The field tour of the Property included visits to two major deposit areas (North Zone and South Zone) that are part of the Mineral Resource estimate. One outcrop was visible, which was discovered next to drill hole LV-25, the non-magnetic outcrop belonging to the Quartz-Carbonate Iron Formation (QCIF) unit. All areas can be accessed by helicopter from Wabush airport; however, the site was accessed by Mr. Dupéré by floatplane from lakes near selected drill-holes areas. Validation checks of drill-hole collar locations were completed for several drill holes spanning the north and south deposit areas. All collars were appropriately marked and labelled with metal caps placed at drill holes. Individual hole monuments were observed, and collar locations were validated with the use of a handheld GPS. Drill-hole collar positions reported in the Company database were validated as surveyed, with minor discrepancies noted being well within the handheld GPS instrumental error.

The August 2024 site visit is considered as current, per Section 6.2 of NI 43-101CP. The author knows of no more-recent scientific or technical information about the Property. The technical report contains all material information about the Property.

It is the author's opinion that independent verification confirms the presence of iron mineralization on the Property and that the results are acceptable for use in the current Mineral Resource estimate.

Figure 12-2: Lac Virot North, Outcrop Near LV-025

Figure 12-3: Lac Virot LV-003 Drill Hole Collar and Landmark

13 MINERAL PROCESSING AND METALLURGICAL TESTING

Metallurgical testwork programs were conducted in two phases in 2022 and 2024 to assess the beneficiation potential of the Lac Virot deposit. These programs aimed to develop a flowsheet capable of producing high-grade iron concentrate while representing the variability of ores from all three pits and across low-grade (LG), medium-grade (MG), and high-grade (HG) zones. This approach ensures that the flowsheet reflects the metallurgical characteristics of the deposit and optimizes design considerations for future phases.

13.1 2022 SGS Québec Test Program

During fall 2022 iron samples from the Lac Virot deposit were processed at the SGS Québec laboratories. For this test program, two group samples; a surface grab sample and a drill-core sample were characterized and evaluated for their metallurgical performance.

Chemical analysis of the two samples found them to be very similar, with iron content ranging from 30.4% Fe in the Core sample to 31.3% Fe in the Surface sample and the silica content ranging from 44.2% SiO_2 in the Core sample to 47.4% SiO_2 in the Surface sample. Both samples have low sulphur content at less than 0.02% S. The amount of magnetically recoverable iron as determined by Satmagan was slightly higher in the ore sample, at 80.2%, than the 72.2% observed for the Surface sample.

A Bond ball mill grindability test (BWI) completed on a 10 kg composite of the two samples obtained a work index value of 7.7 kWh/t, which is “very soft,” corresponding to the 3rd percentile of the SGS database.

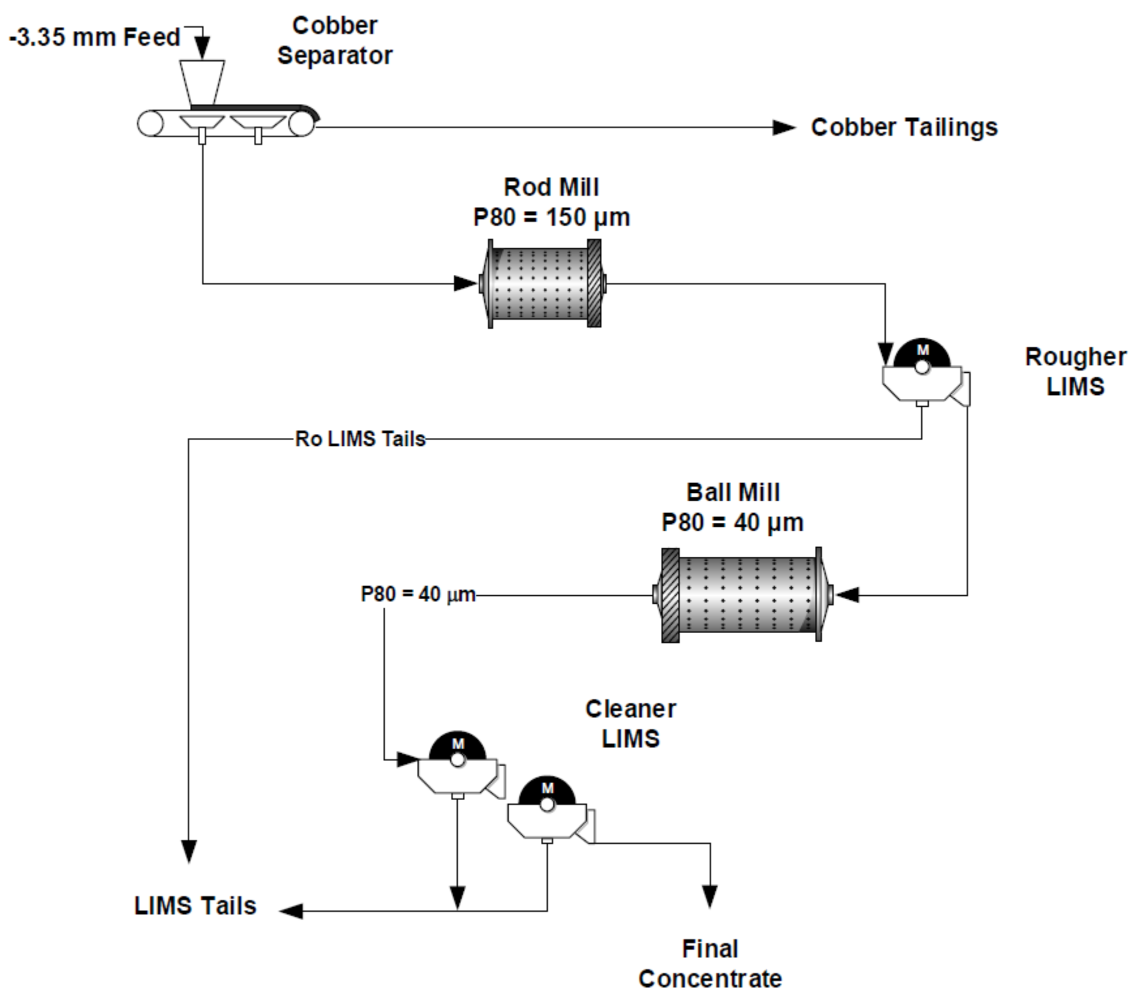
Metallurgical tests were carried out to evaluate the recovery of iron via magnetic or gravity separation processes. The testwork completed on the samples from the Lac Virot project in 2022 concluded that:

- The head assays show that 72% of the Surface sample iron and 80% of the Core sample iron is recoverable by magnetic separation.
- Davis tube tests at 38 and 53 µm on both samples showed that a high-grade iron concentrate (>68% Fe) could be achieved at expected recoveries.
- The Surface sample obtained a magnetic concentrate grade of 71.3% Fe at an average 73.5% recovery.
- The Core sample obtained a magnetic concentrate grade of 68.5% Fe at an average recovery of 79.7%.
- At 80% passing (P_{80}) 38 µm, the magnetite concentrates were below 4.00% SiO_2 + Al_2O_3 and below 0.05% S, indicating that the addition of a flotation circuit would not be necessary.
- Dry medium intensity magnetic separation at coarse size (1.7 mm) was able to reject 26% to 30% of the mass at very low, magnetic iron losses of approximately 1%, for both samples. Therefore, a coarse cobbing pre-concentration stage is recommended ahead of the ball mill to reduce capital costs.

- The heavy liquid separation tests showed reasonable iron recovery, but the maximum grades achieved were low, at 51.8% Fe for the Surface sample and 45.7% Fe for the Core sample in the 3.1 g/cm^3 sink fraction. This concentrate could be upgraded much further by regrinding.
- The testwork program by SGS showed that the material has a good proportion of magnetite (70%–80%), which can be recovered with a series of size reduction and magnetic separation stages. It is recommended to focus solely on a magnetic separation circuit that would include a medium-intensity coarse cobbing stage (2–4 mm) ahead of ball milling to P_{80} ~150 µm, 1 or 2 stages of rougher low-intensity magnetic separation, regrinding of the rougher magnetic concentrate to P_{80} 40 µm, and 2–3 stages of cleaner lo- intensity magnetic separation.

The testwork suggested that the proposed flowsheet be evaluated at larger scale to confirm the feed sizes to the cobber, rougher, and cleaner magnetic-separation stages, and the number of magnetic separators to include in the wet LIMS stages in the final flowsheet.

Figure 13-1: Lac Virot Beneficiation Testwork Flowsheet 1



13.2 2024 SGS Québec Test Program

The 2024 SGS Quebec test program expanded on the findings of the 2022 program, which aimed at evaluating the grinding circuit and beneficiation tests to support the PEA study from samples from all the four project pits: South Pit, Mid Pit, and North Pits. Samples were collected from the following drill holes:

- South Pit: Drill Holes 002 and 012
- Mid Pit: Drill Holes 013 and 021
- North Pits: Drill Holes 028 and 033.

Ten half-core samples totaling 132 kg were composited into three groups (low-grade, medium-grade, and high-grade) to represent the variability in magnetic iron content across the deposit.

13.2.1 Sample Characterization

The variability samples were first assayed individually, then three composites of LG, MG, and HG were made, based on magnetic iron content 12.5%–21%, 21.1%–23.8%, and 23.8%–36.3%, respectively. The composites' head assays confirmed the magnetic iron content expected, with 19.6% for LG, 21.4% for MG, and 27.1% for HG.

XRD results showed that quartz is most abundant in MG, at 42.2%, followed by HG at 40.5%, and LG at 40.0%. Non-magnetic iron is most prevalent in LG at 35.8%, followed by HG at 27.7%, and MG at 27.1%. The non-magnetic iron is present as carbonates, either as siderite or ankerite, two minerals that have low iron content (48.2% Fe in siderite and 16.2% Fe in ankerite).

13.2.2 Comminution Tests

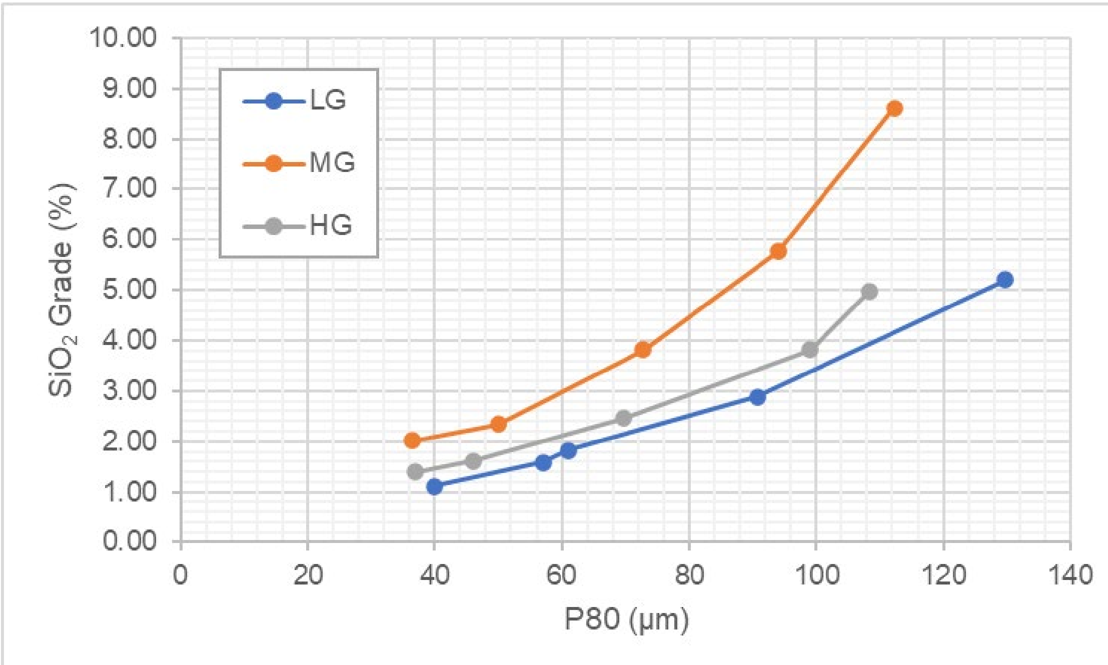
A master composite of the three composites was categorized as soft, with a SAG Power Index value of 40.6 min, as moderately abrasive, with an Abrasion Index value of 0.317 g, and as very soft in terms of ball mill grinding with a BWI of 7.6 kWh/t.

13.2.3 Davis Tube Tests

Davis Tube tests done on the three composites at particle size P_{80} 25, 38, 53, 75, 106 µm show that there was no change in the concentrate weight recovery as the particle-size increased, which was around 28%, 32%, and 40% for LG, MG, and HG respectively. The total iron recovery was in the vicinity of 64%–66% for LG, and 80%–82% for MG and HG, while the recovery of magnetic iron ranged from 99.5% at the coarsest grind P_{80} 106 µm to 92.5% at the finest grind P_{80}. Silica content, the main impurity content, decreases with finer grind size as observed in Figure 13-2, which presents the effect of primary grind size on magnetic concentrate silica content.

The LG and HG composites had similar silica grade versus grind-size curves, while the MG composite consistently showed higher silica content than the magnetite concentrate. Assuming a target silicon dioxide content of 3.0% to a final upgrading stage, and based on the MG composite results, a maximum primary grind size of 60 µm should be targeted. A primary grind size of 53 µm was selected for the beneficiation tests.

Figure 13-2: Davis Tube Concentrate SiO_2 Grade by Size



13.2.4 Laboratory Information Management System Tests

Processing of the three composites through a beneficiation flowsheet including a Cobber LIMS stage at P_{100} 1.7 mm, a two-stage rougher LIMS at P_{80} 150–180 µm, and a three-stage finisher LIMS at P_{80} 45–60 µm, achieved a concentrate grade od 67.5% Fe and <3.6% SiO_2 for the three composites tested. The test summaries for the three stages of magnetic separation are shown in Table 13-1 to Table 13-3.

Total iron recovery was in line with the magnetic iron proportion of each composite, ranging from 61.6% for the LG composite to 78.7% for the MG and HG composites. The overall recovery of magnetic iron after three stages of magnetic separation is over 92.5% for the three composites.

Table 13-1: Cobber LIMS Test Summary

Test	Feed	Feed Weight (kg)	MAGS Weight (%)	MAGS Grade (%)								Recovery (%)		
				SiO_2	Al_2O_3	MgO	CaO	Na_2O	Fe	FeMag	S	SiO_2	Fe	FeMag
Cobber LIMS	LG	9.6	47.0	33.1	0.09	1.02	1.70	0.06	42.2	37.7	0.01	39.2	69.2	95.1
	MG	9.7	63.8	39.1	0.06	1.65	3.40	0.02	35.1	31.7	<0.01	57.6	87.3	97.1
	HG	9.6	69.0	34.4	0.12	0.92	1.55	< 0.01	41.8	38.0	<0.01	58.1	87.2	97.5

Table 13-2: Rougher LIMS Test Summary

Test	Feed	Feed Weight (kg)	P_{80} (µm)	MAGS Weight %)	MAGS Grade (%)								Recovery (%)		
					SiO_2	Al_2O_3	MgO	CaO	Na_2O	Fe	FeMag	S	SiO_2	Fe	FeMag
Rougher	LG	4.3	185	72.1	20.5	0.08	0.52	0.90	0.05	54.6	52.4	<0.01	44.6	92.6	98.4
	MG	5.9	185	66.8	24.4	0.05	0.90	1.90	0.04	49.9	48.0	<0.01	42.1	93.6	98.5
	HG	6.3	155	68.9	18.5	0.10	0.44	0.84	0.01	56.4	54.9	<0.01	36.5	93.4	98.7

Table 13-3: Finisher LIMS Test Summary

Test	Feed	Feed Weight (kg)	P_{80} (µm)	MAGS Weight (%)	MAGS Grade (%)								Recovery (%)		
					SiO_2	Al_2O_3	MgO	CaO	Na_2O	Fe	FeMag	S	SiO_2	Fe	FeMag
Finisher	LG	2.9	62	75.7	2.84	0.05	0.14	0.29	< 0.01	69.6	70.0	0.01	10.6	96.1	98.6
	MG	3.3	48	71.3	3.62	0.02	0.22	0.48	< 0.01	69.1	67.8	<0.01	11.0	96.2	98.4
	HG	4.1	47	77.7	2.24	0.06	0.10	0.20	< 0.01	70.5	70.8	0.01	9.49	96.8	99.3

13.2.5 Flotation Tests

Reverse flotation is considered as an upgrading stage to further reduce the SiO2 content; however, it is not incorporated into design at this stage of study. A grade below 0.70% SiO2 achieved after the first flotation increment resulting in excellent iron recoveries (above 97% stage recovery).

The whole tested circuit, including flotation, shown in Figure 13-3, achieved a final concentrate grading >71% Fe and <0.7% SiO_2 for the three composites tested. Total iron recovery ranged from 60.5% for the LG composite to 77% for the MG and HG composites. Magnetic iron recovery ranged from 86.8% for the LG composite to 92% for the MG and HG composites.

Exploratory tests evaluating the possible replacement of the reverse flotation circuit with hydraulic classification showed promise, reducing the finisher LIMS concentrate silica content by approximately 25%. From the preliminary evaluation, it is recommended to further evaluate the substitution of the reverse silica flotation circuit by a hydro separation stage for its reduced environmental impact.

The results of each of the processing stages (magnetic separation + reverse flotation) were combined into an overall mass balance as summarized in Table 13-4 to Table 13-6. The most important sources of iron losses were in the cobber stage, at 30% for LG, 12% for MG, and 13% for HG, most likely as non-magnetic siderite and ankerite.

Figure 13-3: Lac Virot Beneficiation Testwork Flowsheet 2

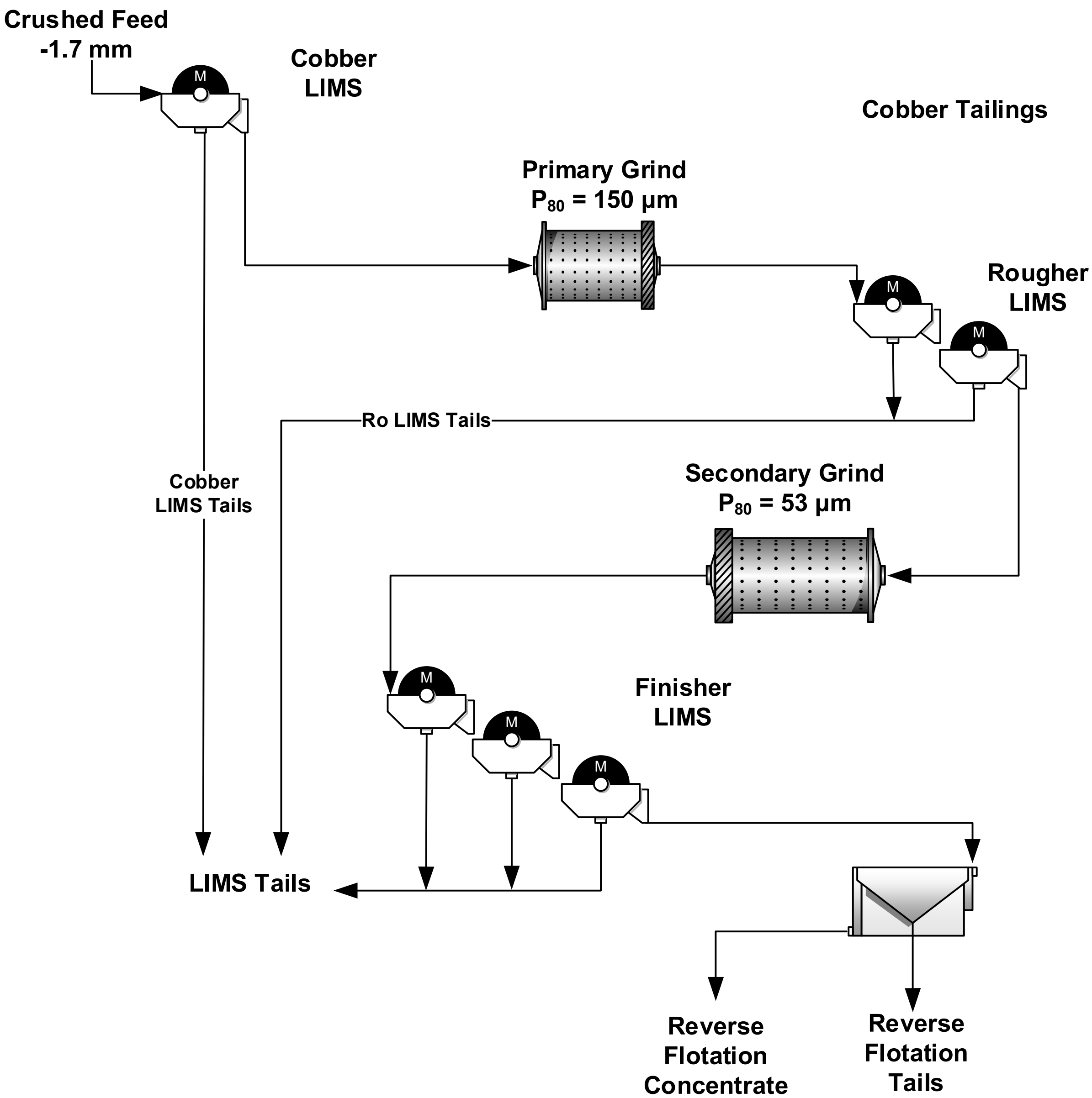


Table 13-4: Overall Mass Balance—Low Grade

Stream	Weight		Assays (%)															
	kg	%	SiO_2	Al_2O_3	Fe_2O_3	MgO	CaO	Na_2O	K_2O	TiO_2	P_2O_5	MnO	Cr_2O_3	V_2O_5	LOI	FeTot	Sat[2]	FeMag
Final Concentrate	2.36	24.5	0.63	0.07	102.1	0.13	0.26	0.01	0.01	0.02	0.01	0.21	0.03	0.01	-2.53	71.4	96.2	69.7
Reverse Flotation Tailings	0.11	1.16	53.5	0.35	40.5	0.82	1.30	0.13	0.03	0.04	0.07	0.87	0.03	0.01	2.75	28.3	34.0	24.6
Finisher Mags	2.47	25.6	2.84	0.05	99.5	0.14	0.29	<0.01	<0.01	0.02	<0.01	0.22	0.04	<0.01	-2.62	69.6	96.7	70.0
Finisher N-Mags	0.79	8.2	74.4	0.21	12.7	1.64	2.58	0.10	0.02	0.03	0.04	1.33	<0.01	<0.01	7.19	8.88	4.27	3.09
Rougher N-Mags	1.26	13.1	65.6	0.15	16.0	2.34	3.77	0.07	0.01	0.02	0.05	1.81	<0.01	<0.01	10.5	11.2	2.98	2.16
Cobber N-Mags	5.11	53.0	45.4	0.15	23.8	4.11	5.77	0.03	0.03	0.03	0.06	2.12	<0.01	<0.01	18.4	16.6	2.38	1.72
Calc. Head	9.64	100.0	39.5	0.13	41.3	2.66	3.84	-	-	0.03	-	1.53	-	-	11.1	28.9	26.8	19.4
Direct Head		-	39.6	0.12	40.9	2.66	3.86	0.04	-	0.03	0.04	1.52	-	-	11.2	28.6	25.7	18.6

Notes: [1]Fe grade calculated from the Fe_2O_3 WRA result. [2]Satmagan grade expressed as Fe_3O_4.

Stream	Weight		Distribution (%)									
	kg	%	SiO_2	Al_2O_3	Fe_2O_3	MgO	CaO	TiO_2	MnO	Fe[1]	Sat	FeMag
Final Concentrate	2.36	24.5	0.4	12.6	60.5	1.2	1.6	21.6	3.36	60.5	87.9	87.9
Reverse Flotation Tails	0.11	1.16	1.6	3.1	1.1	0.4	0.4	1.8	0.66	1.1	1.5	1.5
Finisher Mags	2.47	25.6	1.8	9.9	61.8	1.3	1.9	19.6	3.69	61.8	92.5	92.5
Finisher N-Mags	0.79	8.24	15.5	13.4	2.5	5.1	5.5	9.5	7.18	2.5	1.3	1.3
Rougher N-Mags	1.26	13.1	21.8	15.2	5.1	11.6	12.9	10.0	15.5	5.1	1.5	1.5
Cobber N-Mags	5.11	53.0	60.9	61.5	30.6	82.0	79.6	60.9	73.6	30.6	4.7	4.7
Calc. Head	9.64	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

Table 13-5: Overall Mass Balance—Medium Grade

Stream	Weight		Assays (%)															
	kg	%	SiO_2	Al_2O_3	Fe_2O_3	MgO	CaO	Na_2O	K_2O	TiO_2	P_2O_5	MnO	Cr_2O_3	V_2O_5	LOI	FeTot	Sat[2]	FeMag
Final Concentrate	2.76	28.6	0.63	0.02	101.6	0.22	0.46	0.02	0.01	0.01	0.01	0.21	0.07	0.01	-2.43	71.0	97.4	70.5
Reverse Flotation Tails	0.18	1.83	51.9	0.09	46.2	0.48	0.88	0.04	0.01	0.02	0.04	0.27	0.04	0.01	0.41	32.3	41.1	29.8
Finisher Mags	2.94	30.4	3.62	0.02	98.8	0.22	0.48	<0.01	< 0.01	0.01	<0.01	0.21	0.08	<0.01	-2.44	69.1	93.6	67.8
Finisher N-Mags	1.18	12.2	72.9	0.12	9.69	2.37	4.93	0.04	< 0.01	0.02	0.03	1.45	<0.01	<0.01	9.04	6.78	3.67	2.65
Rougher N-Mags	2.05	21.2	67.6	0.12	9.85	3.07	6.14	0.04	< 0.01	0.02	0.03	2.04	<0.01	<0.01	11.2	6.89	2.08	1.51
Cobber N-Mags	3.50	36.2	50.8	0.08	12.9	4.84	10.3	0.02	< 0.01	< 0.01	0.02	3.04	<0.01	<0.01	18.0	9.02	2.28	1.65
Calc. Head	9.66	100.0	42.7	0.08	38.0	2.76	5.78	-	-	-	-	1.77	-	-	-	26.6	30.2	21.8
Direct Head		-	43.3	0.07	36.7	2.80	5.90	0.02	-	-	0.02	1.80	-	-	9.55	25.7	28.8	20.8

Notes: [1]Fe grade calculated from the Fe_2O_3 WRA result. [2]Satmagan grade expressed as Fe_3O_4.

Stream	Weight		Distribution (%)									
	kg	%	SiO_2	Al_2O_3	Fe_2O_3	MgO	CaO	TiO_2	MnO	Fe[1]	Sat	FeMag
Final Concentrate	2.76	28.6	0.4	6.2	76.4	2.3	2.3	-	3.4	76.4	92.2	92.2
Reverse Flotation Tails	0.18	1.83	2.2	2.2	2.2	0.3	0.3	-	0.3	2.2	2.5	2.5
Finisher Mags	2.94	30.4	2.6	8.1	79.1	2.4	2.5	-	3.6	79.1	94.3	94.3
Finisher N-Mags	1.18	12.2	20.9	19.5	3.1	10.5	10.4	-	10.0	3.1	1.5	1.5
Rougher N-Mags	2.05	21.2	33.5	33.8	5.5	23.6	22.5	-	24.4	5.5	1.5	1.5
Cobber N-Mags	3.50	36.2	43.1	38.6	12.3	63.5	64.5	-	62.1	12.3	2.7	2.7
Calc. Head	9.66	100.0	100.0	100.0	100.0	100.0	100.0	-	100.0	100.0	100.0	100.0

Table 13-6: Overall Mass Balance—High Grade

Stream	Weight		Assays (%)															
	kg	%	SiO_2	Al_2O_3	Fe_2O_3	MgO	CaO	Na_2O	K_2O	TiO_2	P_2O_5	MnO	Cr_2O_3	V_2O_5	LOI	FeTot	Sat[2]	FeMag
Final Concentrate	3.38	35.3	0.56	0.06	102.5	0.10	0.18	0.01	0.01	0.02	0.01	0.17	0.05	0.01	-2.68	71.7	97.4	70.5
Reverse Flotation Tails	0.16	1.64	39.5	0.16	59.6	0.32	0.55	0.02	0.01	0.03	0.06	0.31	0.05	0.01	0.03	41.7	53.4	38.7
Finisher Mags	3.54	36.9	2.24	0.06	100.8	0.10	0.20	< 0.01	< 0.01	0.02	< 0.01	0.17	0.06	< 0.01	-2.81	70.5	97.7	70.8
Finisher N-Mags	1.02	11	74.2	0.23	11.5	1.59	2.91	< 0.01	< 0.01	0.01	0.05	1.42	< 0.01	< 0.01	8.19	8.04	2.56	1.85
Rougher N-Mags	2.05	21.4	71.4	0.19	12.7	1.94	3.12	0.03	0.01	0.01	0.05	1.86	< 0.01	< 0.01	9.37	8.88	2.28	1.65
Cobber N-Mags	2.97	31.0	55.2	0.13	19.4	3.30	4.99	0.03	0.02	0.02	0.04	2.22	< 0.01	< 0.01	15.3	13.6	2.98	2.16
Calc. Head	9.58	100.0	41.1	0.13	47.2	1.65	2.60	-	-	-	-	-	-	-	-	33.0	37.8	27.3
Direct Head		-	40.9	0.12	47.2	1.66	2.62	-	-	0.01	0.03	1.30	-	-	6.77	33.0	37.1	26.8

Notes: [1]Fe grade calculated from the Fe_2O_3 WRA result. [2]Satmagan grade expressed as Fe_3O_4.

Stream	Weight		Distribution (%)									
	kg	%	SiO_2	Al_2O_3	Fe_2O_3	MgO	CaO	TiO_2	MnO	Fe[1]	Sat	FeMag
Final Concentrate	3.38	35.3	0.5	15.3	76.6	2.1	2.4	-	-	76.6	90.9	90.9
Reverse Flotation Tails	0.16	1.64	1.6	2.1	2.1	0.3	0.3	-	-	2.1	2.3	2.3
Finisher Mags	3.54	36.9	2.0	17.4	78.9	2.2	2.8	-	-	78.9	95.5	95.5
Finisher N-Mags	1.02	10.6	19.2	19.1	2.6	10.3	11.9	-	-	2.6	0.7	0.7
Rougher N-Mags	2.05	21.4	37.2	31.9	5.8	25.3	25.7	-	-	5.8	1.3	1.3
Cobber N-Mags	2.97	31.0	41.6	31.6	12.8	62.2	59.5	-	-	12.8	2.4	2.4
Calc. Head	9.58	100.0	100.0	100.0	100.0	100.0	100.0	-	-	100.0	100.0	100.0

13.2.6 Solid–Liquid Separation

The tailings from testing of the three variability samples were combined to make a single composite for the solid–liquid separation test. Magnafloc 338 was selected for the static and dynamic settling test due to lower total suspended solids (TSS).

A series of static settling tests was conducted to optimize the flocculant dosage at constant and presented in Table 13-7(selected) diluted feed density. The best results were obtained with a 15% slurry density and 10 g/t flocculant, as decreasing flocculant dosage led to a decline in decreasing supernatant quality (clarity and TSS). A similar decrease in quality occurred with a 10% slurry density, although it had a faster initial settling rate of 1,440 m³/m²/d. The final test with a 20% slurry density and 15 g/t flocculant resulted in the lowest TSS (16.7 mg/L) and a fast initial settling rate of 1,200 m³/m²/d.

Flow or plugging issues occurred when operating the bench scale dynamic thickener due to the relatively low concentration (<15%) of minus 20 µm fraction.

Table 13-7: Static Settling Test Results Summary

Sample ID	Test pH	Dosage (g/t)	Feed[1] (%w/w)	U/F Solids Density[2] (%w/w)	Unit Area (m²/[t/d])	ISR[3] (m³/m²/d)	Supernatant[4] Clarity	TSS[5] (mg/L)
LIMS Tailings	7.8	2.5	15	75.8	0.031	643	Slightly Cloudy	320.6
		5		72.4	0.033	914	Hazy	57.6
		10		68.2	0.033	903	Clear	24.6
		5	10	73.5	0.036	1440	Hazy	45.3
		10		74.5	0.042	986	Clear	38.4
		10	20	71.2	0.031	774	Clear	58.2
		15		69.5	0.028	1200	Clear	16.7

Notes: All values were calculated without a safety factor
Test conditions: 2L cylinder with rotating picket-style raking, ambient temperature Flocculant: BASF Magnafloc 338
[1]Diluted Thickener Feed. [2]Final Thickened "Underflow Density." [3]Initial Settling Rate. [4]Supernatant Visual Clarity at 10 minutes of elapsed time. [5]Supernatant at 10 minutes of elapsed settling time.

13.2.7 Recovery Modelling

Three stages of magnetic separation led to total iron recovery ranging from 61.6% for the LG composite to about 78.7% for the MG and HG composites, and achieved a concentrate grade of >69.1% Fe and <3.6% SiO_2 for the three composites tested.

By adding a flotation stage total iron recovery ranged from 60.4% for the LG composite to 77% for the MG and HG composites, and achieved a final concentrate grade of >71% Fe and <0.7% SiO_2 for the three composites tested.

While adding flotation decreases the SiO_2 content to a more preferred level, it lowers total Fe recovery by less than 2%.

13.2.8 Deleterious Elements

The practical grade of silica for DR grade iron is 3.5%, while the preferred grade is 2%. The reported silica content of the finisher magnetic separation product ranged from 2.2% for HG to 3.62 % for MG which is slightly over the practical limit for MG samples. Silica content decreases significantly to 0.32% for HG and 0.19% for MG after reverse flotation of silica from magnetic separation product.

Practical grades for sulphur is 0.025%, and the preferred amount is 0.015%. Sulphur content is decreased to <0.01% after magnetic separation and there is no concern associated with that.

13.2.9 Future Testing

Recommendations for future testwork are as follows:

- Perform physical characterization tests including moisture content and bulk density, as well as product and streams.
- Perform grindability testing on samples representative of the ball mill feed, as well as specific throughput parameter on high-pressure grinding roll (HPGR) feed.
- Determine the specific grinding energy for fine grinding.
- Determine the tailings rejection curve, which suggests the rejection to the tails as a function of particle size to ensure maximum gangue rejection at coarser sizes. Need to confirm the optimum coarse rejection size and the rejection that is practical at that size.
- Further test rougher magnetic separation of the HPGR product to confirm mass rejection at this coarse particle size.
- Test concentrate, tailings thickening, and filtration on material representative of the particle size distribution of the feed to thickener or filtration. (Due to the mild grindability characteristics it may be possible to reduce the number of grinding stages. A grinding circuit design would be required to confirm the number of grinding stages and equipment sizing.)
- Perform a series of tests at small and larger scale to further define the hydraulic classification conditions and confirm whether it can achieve similar results to those of reverse flotation.
- Confirm the selected grinding circuit and final upgrading process design through semi-continuous operation.

14 MINERAL RESOURCE ESTIMATE

SGS completed a Mineral Resource update of the Lac Virot deposit at the Lac Virot Iron project on February 03, 2025, which included a review and validation of the recent economic factors involving pit optimization in their February 16, 2023, Mineral Resource estimate.

To the best of the QP's knowledge there are no title, legal, taxation, marketing, permitting, socio-economic, or other relevant issues that may materially affect the Mineral Resource estimate described in this Technical Report.

The Mineral Resources presented herein, with an effective date of February 7, 2025, incorporates drilling data from holes completed by the previous owner during the 2012 drilling campaign.

This report of the Mineral Resource estimate complies with all disclosure requirements for Mineral Resources set out in NI 43-101. The classification of the Mineral Resource estimate is consistent with the Canadian Institute of Mining, Metallurgy and Petroleum's (CIM) *Definition Standards for Mineral Resources & Mineral Reserves* (Definition Standards) (CIM, 2014) and adheres as much as possible to the *CIM Estimation of Mineral Resources & Mineral Reserves Best Practice Guidelines* (CIM, 2019).

The Mineral Resource estimate was conducted using SGS 3-D modelling and block modelling proprietary software called Genesis, together with Microsoft Excel. Carrying out the Mineral Resource estimation is QP Maxime Dupéré, of SGS Geological Services, an independent mining and geological consulting branch of SGS Canada Inc.

14.1 Mineral Resource Estimation Database

To inform the Mineral Resource estimate, Red Paramount provided the database, which consists of:

- Information from diamond drill holes, in the form of:
  - Collar surveys
  - Downhole surveys
  - Sampling and assay data
  - Geology logs
  - Limited specific gravity (SG) measurements
  - Rock quality designation (RQD) measurements
- Topographic surveys provided as 3-D face DXF format.

The drill-hole data were provided in Microsoft Excel files extracted from a Microsoft Access database that Red Paramount manages. The principal sources of information used for the Mineral Resource estimate are exploration drilling programs that the previous owner (Ridgemont) conducted during the 2012 drilling campaign.

In all, 43 holes were drilled. The cut-off date for inclusion of drill-hole data into this estimate is December 3, 2012, at which time there was no outstanding information for Lac Virot, as the drilling was completed in 2012.

14.2 Exploratory Analysis of the Raw Data

The dataset examined consisted of sampling and logging data from diamond drill holes. The following attributes are of direct relevance to the estimate:

- REE oxide grades in ppm: lanthanum (La_2O_3), cerium (C_2O_3), praseodymium (Pr_2O_3), neodymium (Nd_2O_3), samarium (Sm_2O_3), europium (Eu_2O_3), gadolinium (Gd_2O_3), terbium (Tb_2O_3), dysprosium (Dy_2O_3), holmium (Ho_2O_3), erbium (Er_2O_3), thulium (Tm_2O_3), ytterbium (Yb_2O_3), and lutetium (Lu_2O_3), as well as Yttrium (Y_2O_3).
- SG measurements.
- RQD measurements.
- Silica (SiO_2), aluminium (Al_2O_3), ferric iron oxide (Fe_2O_3), magnesium oxide (MgO), calcium oxide (CaO), sodium oxide (Na_2O), potassium oxide (K_2O), titanium dioxide (TiO_2) phosphorus pentoxide (P_2O_5), manganese oxide (MnO), chromium (III) oxide (Cr_2O_3), vanadium pentoxide (V_2O_5), LOI, sum magnetic iron (from Satmagan), magnetite (Fe_3O_4) (from Satmagan), Fe_{2+} as ferrous oxide (from titration), weight (g).

14.2.1 Data Validation

SGS undertook a validation process that included the following checks:

- Examining the sample assay, collar survey, down-hole survey and geology data to ensure that the data were complete for all the drill holes
- Examining the de-surveyed data in three dimensions to check for spatial errors
- Examination of the assay and density data to ascertain whether they were within expected ranges
- Checks for “FROM-TO” errors, to ensure that the sample data do not overlap one another, or that there are no unexplained gaps in the sampling.

The data validation exercise revealed the following:

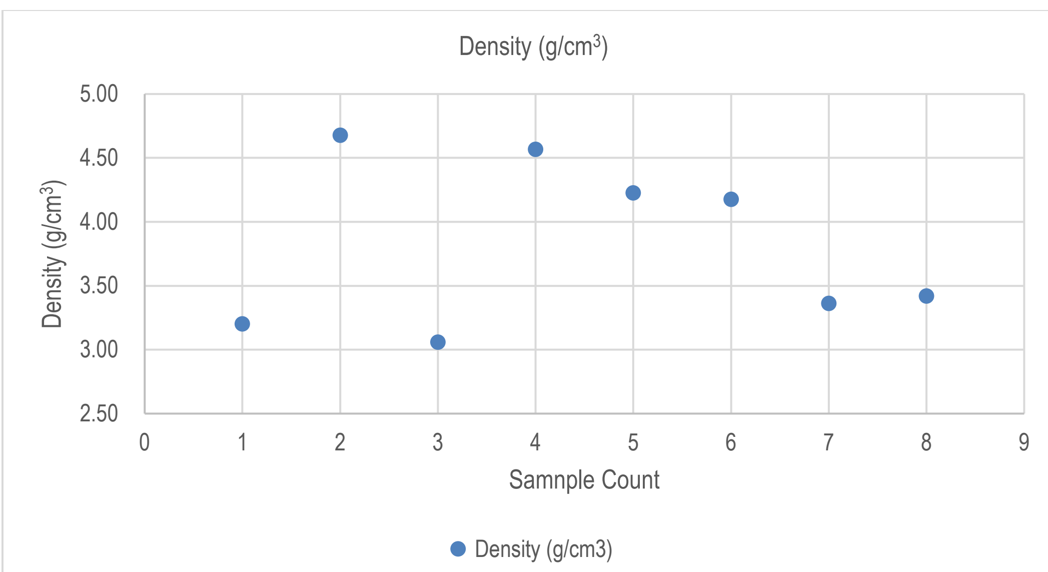
- There are no unresolved errors relating to missing intervals or any overlaps in the drill hole logging data. Absent assays correspond to intervals where no samples were taken.
- Drill Holes LV-001, LV-002 and LV-034 had erroneous dips in the database. Changes were made according to drill log information.
- Examination of the drill-hole data in three dimensions of both in the database and on the drill logs show good correlations and that the collar locations are within expected relative position to the topographic surface.
- Extreme assays were checked, and no errors were found.

- Two limited density measurements from the 2023 metallurgical testwork (Archimedes principle) and six limited-density measurements on mineralized material from Lac Virot provided by Red Paramount .
- Density measurement values (Table 14-1) indicate that densities the client reported tend to be higher than the ones reported in the met testwork. Additionally, these different density values are directly related to iron content within the samples. The limited number of values does not permit SGS to establish an adequate density formula based on iron; therefore, 3.5 was set as the reference density value used for the mineralized material.
- Generally, the sampled intervals' core recoveries are adequate and show good recovery. Some recoveries above 100% were reported, and were noted. Abnormal core recoveries over 100% were retained as 100%.

Table 14-1: Red Paramount Density Measurements

Intercept	Sample No.	Mass (g)	Volume (cm^3)	Density (g/cm^3)
LV-025 (39-42 m)	1	448	140	3.20
LV-012 (303-306 m)	2	318	68	4.68
	3	520	170	3.06
	4	662	145	4.57
LV-011 (114-117 m)	5	338	80	4.23
	6	835	200	4.18
			Average	**3.98**

Figure 14-1: Scatter Plot of Limited Available Density Measurements (Drill Hole and Rock Material)



14.2.2 Statistics of the Raw Sample Data

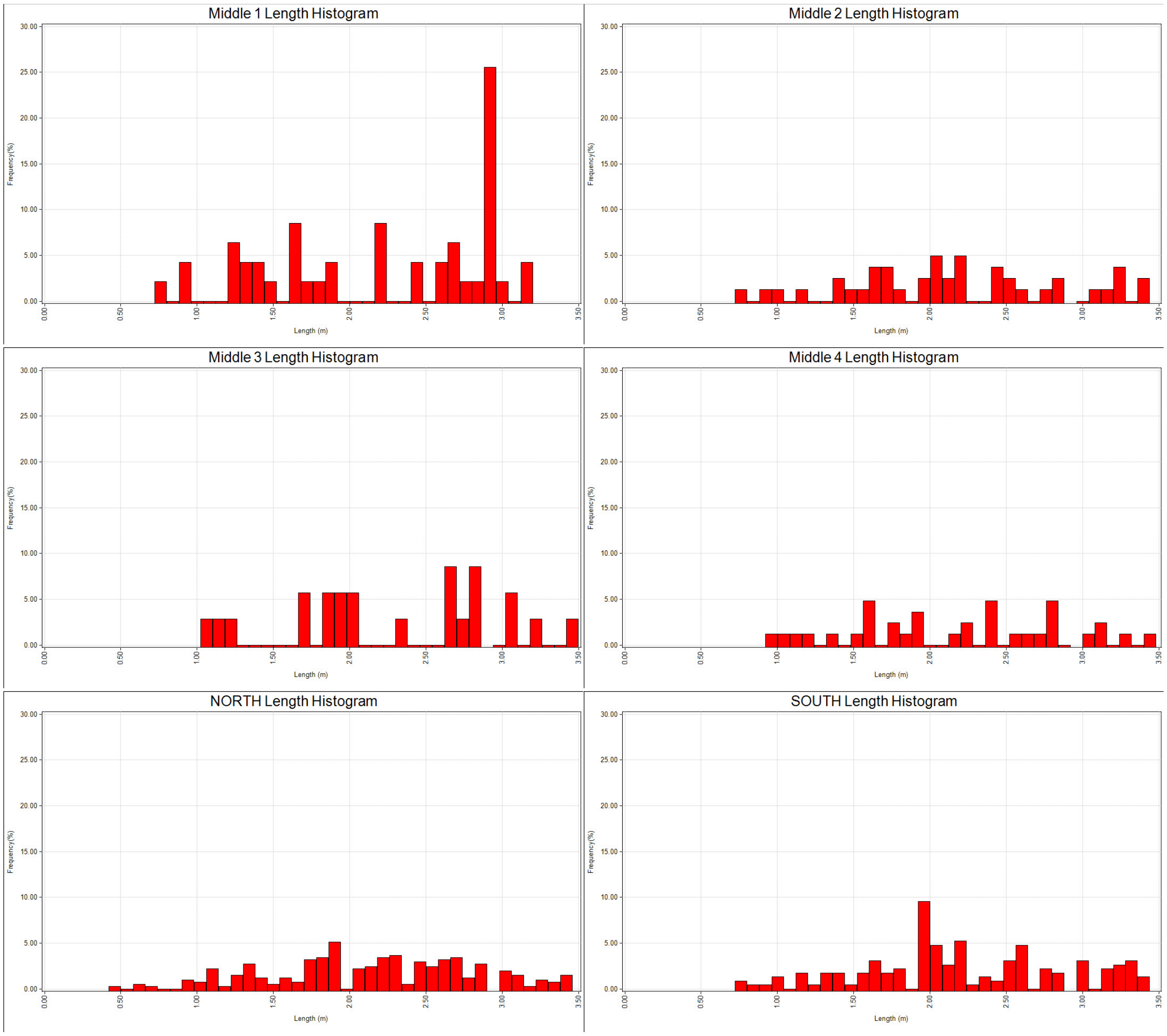
Sample Lengths

A total of 2,307.50 m of drill-hole samples were assayed for all zones (Table 14-2). The North (1,070.40 m) and the South (584.60 m) are the ones most sampled. Sample lengths vary from 0.05 m to 10.00 m in North Zone and 0.80 m to 3.90 m in South Zone with the dominant sample length being 2.6 m for both, as illustrated in the histograms in Figure 14-2.

Table 14-2: Length (m) Statistics

Length(m) Statistics	All	Middle[1]	Middle[2]	Middle[3]	Middle[4]	North	South
Min Value	0.50	0.80	0.80	1.10	1.00	0.50	0.80
Max Value	10.70	3.20	4.50	4.00	4.00	10.70	3.90
Average	2.61	2.29	2.76	2.61	2.77	2.62	2.54
Length Weighted Average	2.84	2.52	3.00	2.77	2.93	2.90	2.71
Sum of Length	2,307.50	107.80	223.30	91.20	230.20	1,070.40	584.60
Variance	0.61	0.51	0.68	0.44	0.44	0.74	0.44
Standard Deviation	0.78	0.71	0.82	0.66	0.67	0.86	0.66
% Variation	0.30	0.31	0.30	0.25	0.24	0.33	0.26
Median	2.90	2.50	3.00	2.90	3.00	2.90	2.70
First Quartile	2.00	1.70	2.10	2.00	2.50	2.10	2.00
Third Quartile	3.00	3.00	3.00	3.00	3.00	3.00	3.00
Count	885	47	81	35	83	409	230

Figure 14-2: Sample Length Histogram for North, South, and Middle Zones



14.3 Bivariate Analysis

The relationship between iron and silica is well established. Scatterplots were created to understand the existence of any correlation between variables that should be preserved in the Mineral Resource estimate. A strong linear relationship between the Fe and SiO_2 grades exists, with some elements displaying this relationship with multiple elements. As an example, Table 14-3 shows the relationships of Fe and SiO_2, Fe and FeO (titration), and Fe and Magnetic Fe (Satmagan) for the South and North zones.

Table 14-3: Length (m) Statistics

Length (m) Statistics	All	Middle[1]	Middle[2]	Middle[3]	Middle[4]	North	South
Min Value	0.50	0.80	0.80	1.10	1.00	0.50	0.80
Max Value	10.70	3.20	4.50	4.00	4.00	10.70	3.90
Average	2.61	2.29	2.76	2.61	2.77	2.62	2.54
Length Weighted Average	2.84	2.52	3.00	2.77	2.93	2.90	2.71
Sum of Length	2,307.50	107.80	223.30	91.20	230.20	1,070.40	584.60
Variance	0.61	0.51	0.68	0.44	0.44	0.74	0.44
Standard Deviation	0.78	0.71	0.82	0.66	0.67	0.86	0.66
% Variation	0.30	0.31	0.30	0.25	0.24	0.33	0.26
Median	2.90	2.50	3.00	2.90	3.00	2.90	2.70
First Quartile	2.00	1.70	2.10	2.00	2.50	2.10	2.00
Third Quartile	3.00	3.00	3.00	3.00	3.00	3.00	3.00
Count	885	47	81	35	83	409	230

Figure 14-3: Sample Scatter Plots Fe, FeO, SiO_2 and Magnetic Fe (Satmagan) for North and South Zones

14.4 Core Recovery

The average core recovery is 97.13% for the entire deposit (South, Middle, and North).

14.5 Geological Modelling

Datamine was first used to generate 3-D volumes and surfaces representing the mineralized zones. SGS used Genesis Software for the update of the South and North zones.

14.5.1 Topography

Red Paramount provided a topographic survey, which consists of a topographic surface (3DFace) in AutoCAD DXF. The surveyed drill-hole collars correspond well with the resultant topographic surface.

14.5.2 Mineralized Zones

The modelling procedure examined the continuity of Fe (%) grades along strike and down-dip to generate mineralized wireframes. A modelling cut-off of 15% was used as a base for modelling. There are areas where low-grade iron is present. These areas were taken out, mostly as external waste zones and do not form part of the mineralized solids. However, waste intervals of less than 6 m were considered in the model as internal waste. The assay results within internal waste intervals were kept and taken into account during estimation. The use of the threshold resulted in generally continuous zones that form a suitable framework for block-model grade estimation. The modelled zones (areas/solids/envelopes) were individually coded into the drill-hole data, and volumes were generated using Datamine and Genesis software. Where necessary, manual edits were incorporated to provide for geologically realistic shapes.

The modelling resulted in fourteen individual mineralized zones The next figures represent the main two zones the North, number tagged as 8 (Figure 14-4) and the South, number tagged as 16 (Figure 14-5).

14.5.3 Overburden Surface

SGS created an overburden surface from drill-hole logs. The overburden surface was modified so it would not cross over the topographic surface given by the client. This topographic surface is limited in terms of quantity, but serves its purpose adequately. Further drill-hole information or further targeted soil thickness probing will help better define the shape of this contact surface.

14.6 Creation of Mineralized Intervals

Mineralized intervals consisting of the top and bottom intersects of mineralized assay data following the modelling parameters were created for all mineralized zones. The mineralized intervals are within the shapes of the solids and reflect the economic potential of profitable mining of each selected drill hole.

Figure 14-4: Cross-Section Illustrating Modelled Mineralized North Zone (8)

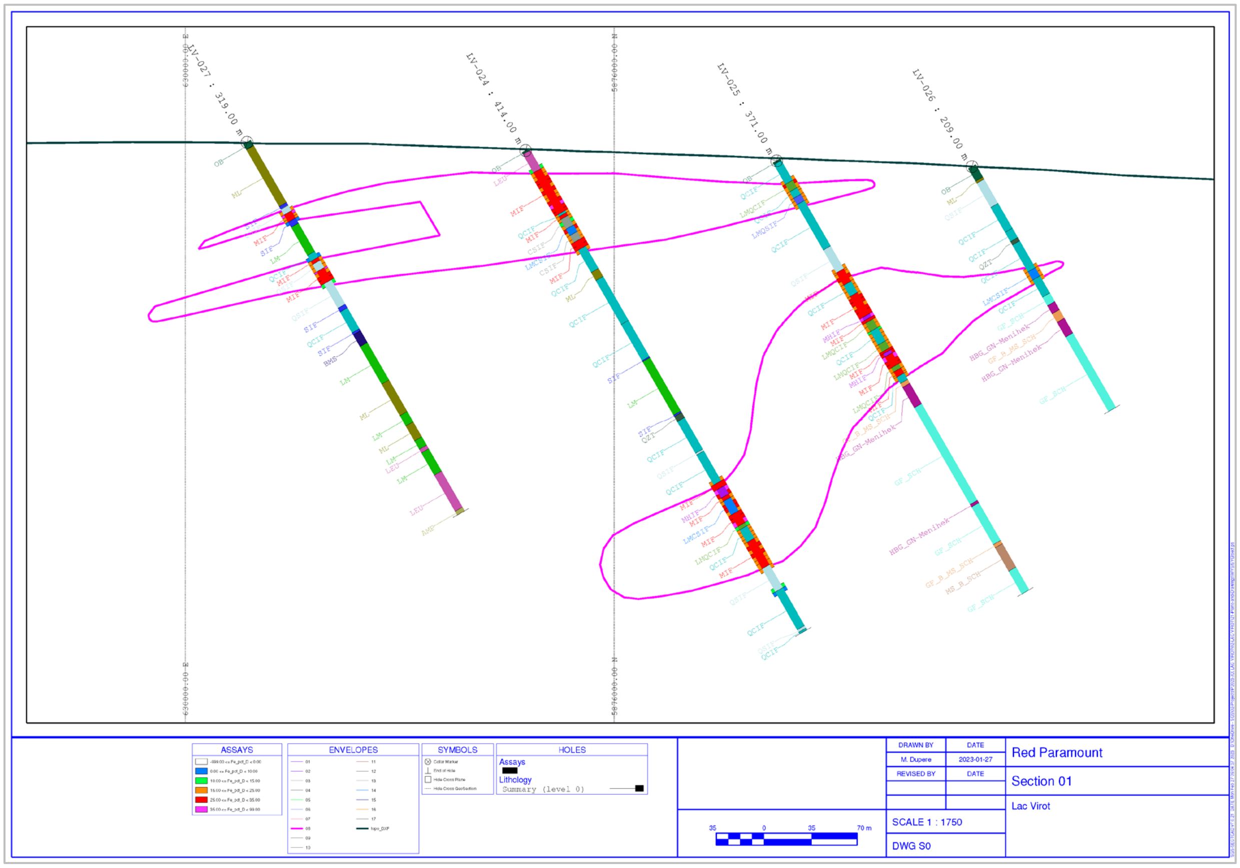
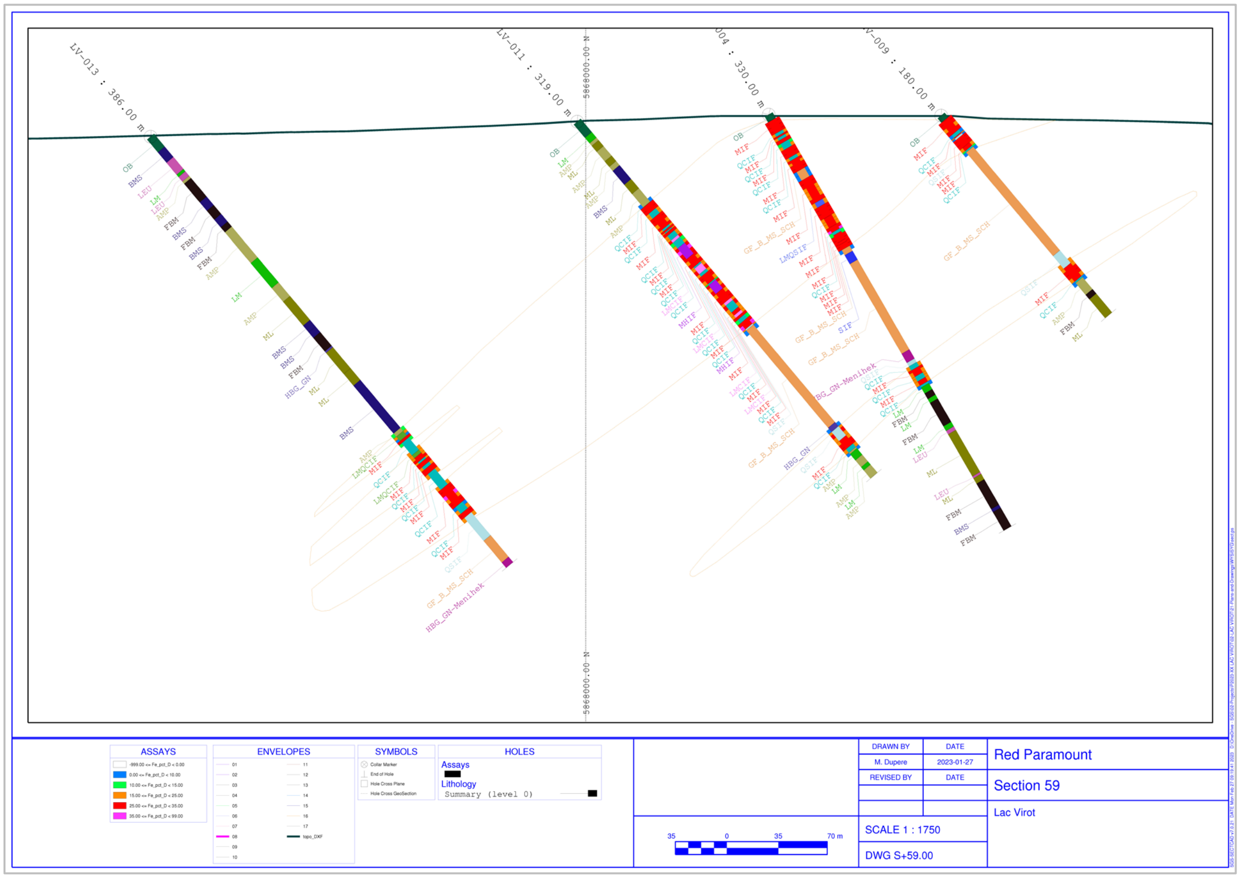


Figure 14-5: Cross-Section Illustrating Modelled Mineralized South Zone (16)



14.7 Statistical Analysis of the Composite Data

Samples were composited to 3 m lengths based on the dominant sample interval, size of the deposit, and block model parameters. Each set of composited data was restrained to each 3-D solid. Compositing was carried out inside the mineralized 3-D solids and within mineralized intervals. Statistics were analyzed for Al2O3(%), CaO(%), Cr2O3(%), Fe2O3(%) (Fe %, derived), Fe3O4(Sat)(%), FeO(titration) (%), K2O (%), LOI(%), MagnFe(%), MgO(%), MnO(%), (Mn % derived), Na2O(%), P2O5(%), SiO2(%), TiO2(%), V2O5(%). The North zone histograms for the Fe%, Magnetic Fe% (Satmagan), FeO% (titration) and SiO2% are shown Figure 14-6. The South zone Histograms for the Fe%, Magnetic Fe% (Satmagan), FeO% (titration) and SiO2% are shown in Figure 14-7.

Figure 14-6: Histograms of Fe%, FeO%, Magnetic Fe% and SiO_2% of North Zone

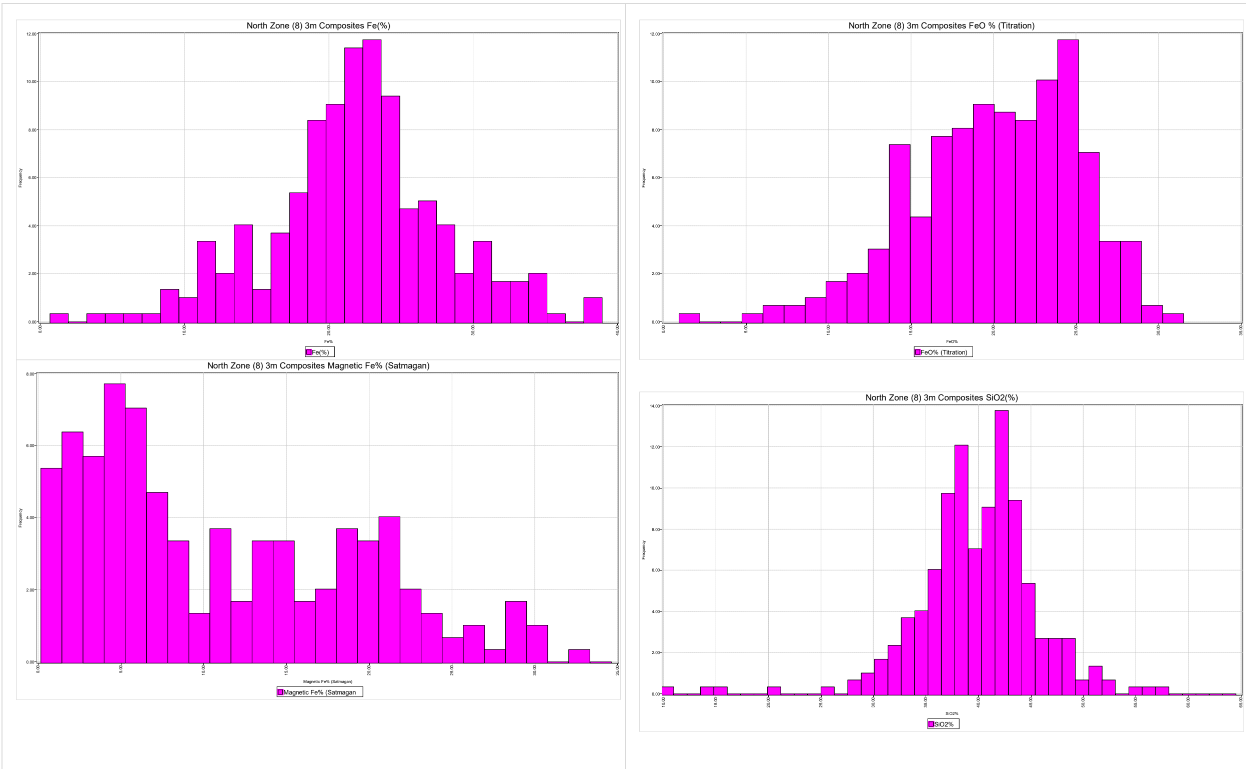


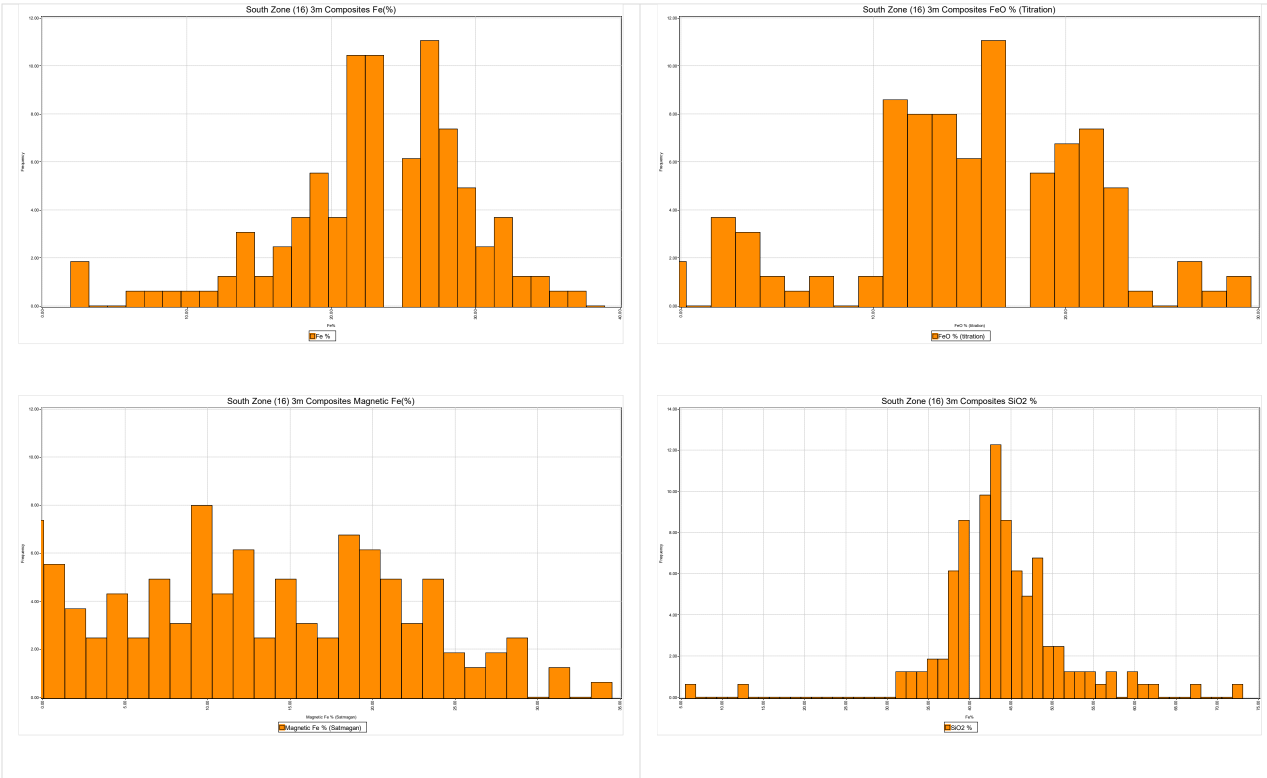
Table 14-4: Statistics of the North 3 m Composite Set

Statistics	Length (m)	Al_2O_3 (%)	CaO (%)	Cr^2O^3 (%)	Fe (%)	FeO(Tit) (%)	Fe^2O_3 (%)	MagnFeSat (%)	Fe_3O_4 Sat (%)	K_2O (%)	LOI (%)	MgO (%)	MnO (%)	Na_2O (%)	P_2O_5 (%)	SiO_2 (%)	TiO_2 (%)	V_2O_5 (%)
Min Value	6.20	0.02	0.01	0.00	3.22	0.30	4.60	0.07	0.10	0.00	1.54	0.02	0.14	0.00	0.01	6.83	0.00	0.00
Max Value	6.20	13.22	11.41	0.05	43.18	29.74	61.73	35.49	48.97	4.24	22.16	5.55	2.86	0.86	0.43	73.30	0.74	0.09
Average	6.20	0.72	3.49	0.02	24.73	16.62	35.36	14.27	19.71	0.17	10.32	2.69	1.46	0.05	0.03	44.83	0.05	0.01
W. Average	2.30	0.73	3.49	0.02	24.79	16.58	35.43	14.34	19.80	0.17	10.27	2.68	1.46	0.05	0.03	44.79	0.05	0.01
Variance	0.00	3.58	3.95	0.00	38.82	34.92	79.32	75.61	144.32	0.35	21.00	1.53	0.38	0.01	0.00	52.87	0.01	0.00
Std. Dev.	0.00	1.89	1.99	0.01	6.23	5.91	8.91	8.70	12.01	0.59	4.58	1.24	0.61	0.12	0.05	7.27	0.11	0.01
%Var.	0.00	2.61	0.57	0.38	0.25	0.36	0.25	0.61	0.61	3.47	0.44	0.46	0.42	2.21	1.47	0.16	2.16	1.30
Median	6.20	0.15	3.46	0.02	25.17	17.34	35.98	13.86	19.13	0.01	10.16	2.67	1.38	0.02	0.02	44.25	0.01	0.01
1st Quartile	6.20	0.08	2.16	0.02	22.20	13.27	31.74	7.37	10.23	0.01	7.61	2.04	1.00	0.01	0.02	41.50	0.01	0.01
3rd Quartile	6.20	0.30	4.85	0.02	28.38	20.25	40.58	21.05	29.10	0.02	13.26	3.42	1.92	0.04	0.03	47.68	0.03	0.01
Count	163.00	163.00	163.00	163.00	163.00	163.00	163.00	163.00	163.00	163.00	163.00	163.00	163.00	163.00	163.00	163.00	163.00	163.00

Table 14-5: Statistics of the South 3 m Composite Set

Statistics	Length (m)	Al_2O_3 (%)	CaO (%)	Cr^2O^3 (%)	Fe (%)	FeO(Tit) (%)	Fe^2O_3 (%)	MagnFeSat (%)	Fe_3O_4 Sat (%)	K_2O (%)	LOI (%)	MgO (%)	MnO (%)	Na_2O (%)	P_2O_5 (%)	SiO_2 (%)	TiO_2 (%)	V_2O_5 (%)
Min Value	6.20	0.01	0.28	0.00	1.96	2.20	2.80	0.20	0.30	0.00	2.11	0.38	0.07	0.00	0.00	10.97	0.00	0.00
Max Value	6.20	14.00	23.11	0.06	40.22	32.53	57.50	37.06	51.26	1.69	29.95	9.45	3.39	2.71	0.83	66.60	2.98	0.06
Average	6.20	0.49	5.65	0.01	23.23	21.36	33.21	9.75	13.46	0.06	14.25	3.07	1.17	0.06	0.04	41.33	0.08	0.01
W. Average	6.20	0.48	5.64	0.01	23.25	21.36	33.24	9.78	13.51	0.06	14.24	3.06	1.17	0.06	0.04	41.34	0.08	0.01
Variance	0.00	2.41	9.66	0.00	39.03	24.96	79.76	77.78	148.42	0.05	28.22	1.87	0.35	0.05	0.01	37.49	0.10	0.00
Std. Dev.	0.00	1.55	3.11	0.01	6.25	5.00	8.93	8.82	12.18	0.22	5.31	1.37	0.59	0.23	0.09	6.12	0.32	0.01
%Var.	0.00	3.15	0.55	0.72	0.27	0.23	0.27	0.90	0.90	3.41	0.37	0.44	0.51	3.87	2.26	0.15	3.94	0.96
Median	6.20	0.09	5.14	0.01	23.38	21.73	33.43	6.96	9.60	0.01	14.13	2.99	1.22	0.02	0.02	41.61	0.01	0.01
1st Quartile	6.20	0.05	3.65	0.01	20.01	18.21	28.60	1.96	2.73	0.01	10.34	2.13	0.73	0.01	0.01	38.33	0.01	0.01
3rd Quartile	6.20	0.21	6.90	0.01	26.51	25.25	37.89	16.00	22.14	0.02	18.20	3.96	1.54	0.04	0.03	44.40	0.02	0.01
Count	298	298	298	298	298	298	298	298	298	298	298	298	298	298	298	298	298	298

Figure 14-7 : Histograms of Fe%, FeO%, Magnetic Fe% and SiO_2% of South Zone



14.8 Cutting and Capping

An outlier analysis was completed on the composite data for the entire deposit and for individual mineralized zones. No capping was applied.

14.9 Geostatistical Analysis

Insufficient drill hole data did not permit the modelling of a semivariogram.

14.10 Block Modelling

Block models were generated for each project using 25 by 25 m blocks in the X (easting) and Y (northing) direction, and 10 m blocks in the Z (elevation) direction. The block model was not rotated. A block fraction was applied to each block. The common origins for the block model are shown Table 14-6.

14.10.1 Estimation Parameters

The search distance and rotation angles were based on the spatial availability of data.

The selected grades for each mineralized sones within the deposit was interpolated into blocks by the inverse distance squared (ID^2) estimation method. Search ellipses for the mineral domains were interpreted based on drill-hole (data) spacing, orientation and size of the resource wireframe models (Table 14-6). The search ellipse axes were interpolated and applied to each block of the block model.

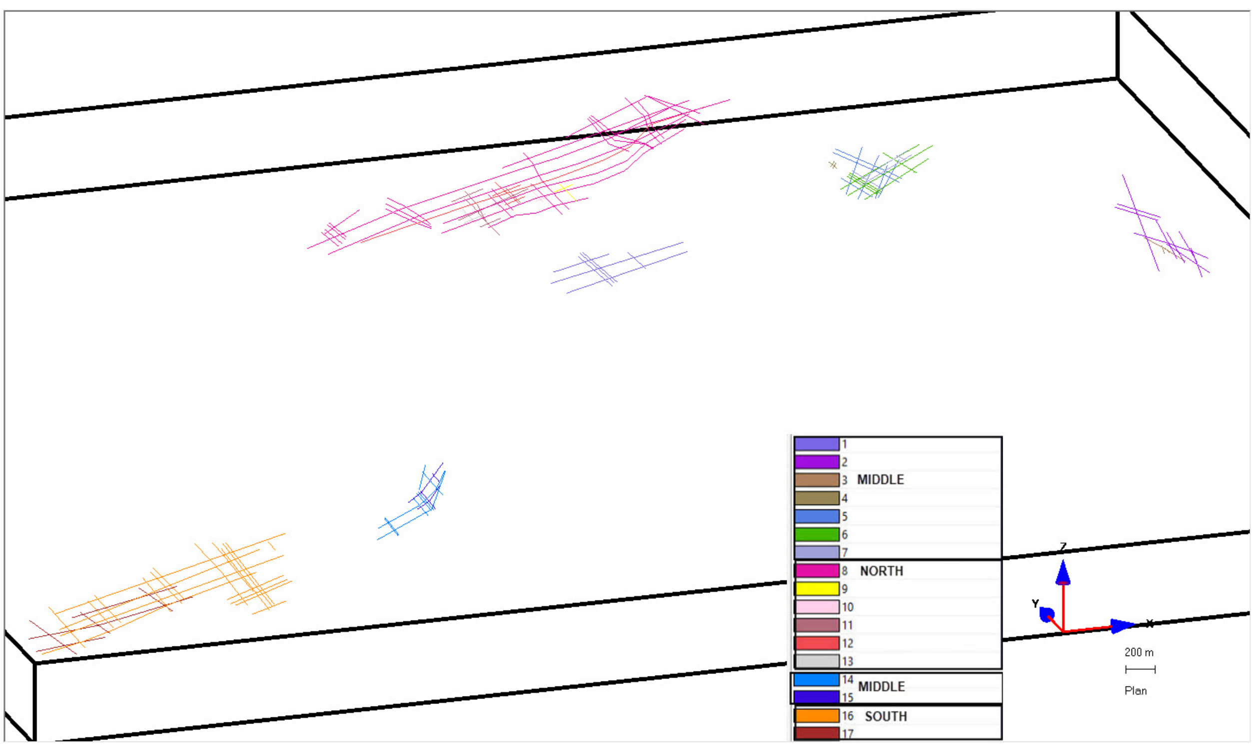
These variable ellipse axes (azimuth, dip, spin) were applied based on the relative orientation of the different mineralized solids and the observed trend of the mineralization down dip/down plunge (Figure 14-8).

Dynamic anisotropy (in Genesis: Variable Ellipsoid) was used to align the search ellipsoids to account for local changes in the orientation of the mineralized zones along strike and dip. The dynamic search for each zone was orientated using trend surfaces from gridded 3-D lines created in Genesis.

Table 14-6: Block Model Origin

Grid	x	y	z
Origin	622,487.50	5,867,163	155
Corner Origin	622,475.00	5,867,150	150
Size	25	25	10
Discretization	4	4	4
Starting Coordinate	622,487.50	5,867,163	155
Starting Block Index	1	1	1
Ending Coordinate	632,612.50	5,876,338	685
Ending Block Index	406	368	54

Figure 14-8: Isometric View Looking Northeast Showing Lac Virot Deposit Variable Ellipsoid Grid Lines used to Populate Azimuth, Dip and Spin Variables of Block Model based on each selected 3D solids



Three estimation passes were used to interpolate grade into all of the blocks in the mineral domains (Table 14-7).

Grades were interpolated into blocks using a minimum and maximum number of composites based on available data in each mineral domain, to generate block grades during Pass 1, 2, and 3. During Pass 1, a minimum of five and a maximum of fifteen composite samples per drill hole, and a maximum of three composites per drill hole, were used to generate block grades totalling estimated 16,998 blocks (32.1%). For Pass 2, the same parameters were used, except the search ellipse was set as twice the size of the first pass, totalling 27,910 estimated blocks (52.6%). For Pass 3, a minimum of three and a maximum of fifteen composite samples per drill hole (no minimum drill holes to use) were needed to generate block grades for totalling 8,115 estimated blocks (15.3%). Note that for the third pass for Zones 3 and 10, a minimum of two samples was set as estimation parameter. Note also that for the third pass for Zone 4, a minimum of one sample was set as estimation parameters. A fixed density of 3.5 was set for all the Lac Virot deposit, as per findings in Section The search parameters are shown in Table 14-7 for Lac Virot Zones 01 to 17.

Table 14-7: Search Parameters for Lac Virot

Parameter	Lac Virot Zones 01 to 17 ([1]except 3, 4, and 10)		
	Pass 1	Pass 2	Pass 3
Calculation Method	ID2		
Search Type	Ellipsoid		
Ellipse orientation	Variable		
Anisotropy X	250	500	1,000
Anisotropy Y	250	500	1,000
Anisotropy Z	50	100	200
Min. composite Samples	5	5	3[1]
Max. Composite Samples	15	15	15
Composite Samples/drill hole	3	3	-

Note: [1]Zones 3 and 10 were set as a minimum of 2, Zone 4 was set as a minimum of 1.

14.10.2 Validation of Estimates

The models were validated by:

- Comparing of the global estimates against the average composite sample grades
- Swath plot
- Visual examination of the input data against the block model estimates.

The average grade of the block model for each individual zone was validated against the de-clustered composite grades (de-clustered to 100 [X] by 100 [Y] by 50 m [Z]). Globally, the estimated block grades compare favourably to the input data, with relative differences less than 10% for the main mineralized zones. Larger percentage differences are noted for the smaller zones, which can be attributed to factors such the spatial arrangement and paucity of the data.

Swath plot validations in the X, Y, and Z directions were used to locally validate the block estimates against the de-clustered sample composites. No material biases in the estimates of the individual elements were identified. Examples of a swath plot validation are shown for Fe % in Figure 14-9.

The block model was examined visually to ensure that the drill-hole grades were locally well represented by the model and it was found that the model validated reasonably well against the data. The model is less well locally representative of the data when extrapolating down dip, and where there is a large space between drill-hole information (Passes 2 and 3). These limitations were carefully considered in the resource classification process. Examples of this validation for Fe (%) are illustrated for North (Figure 14-10) and South (Figure 14-11).

Figure 14-9: Swath Plot Validation for Fe (%)

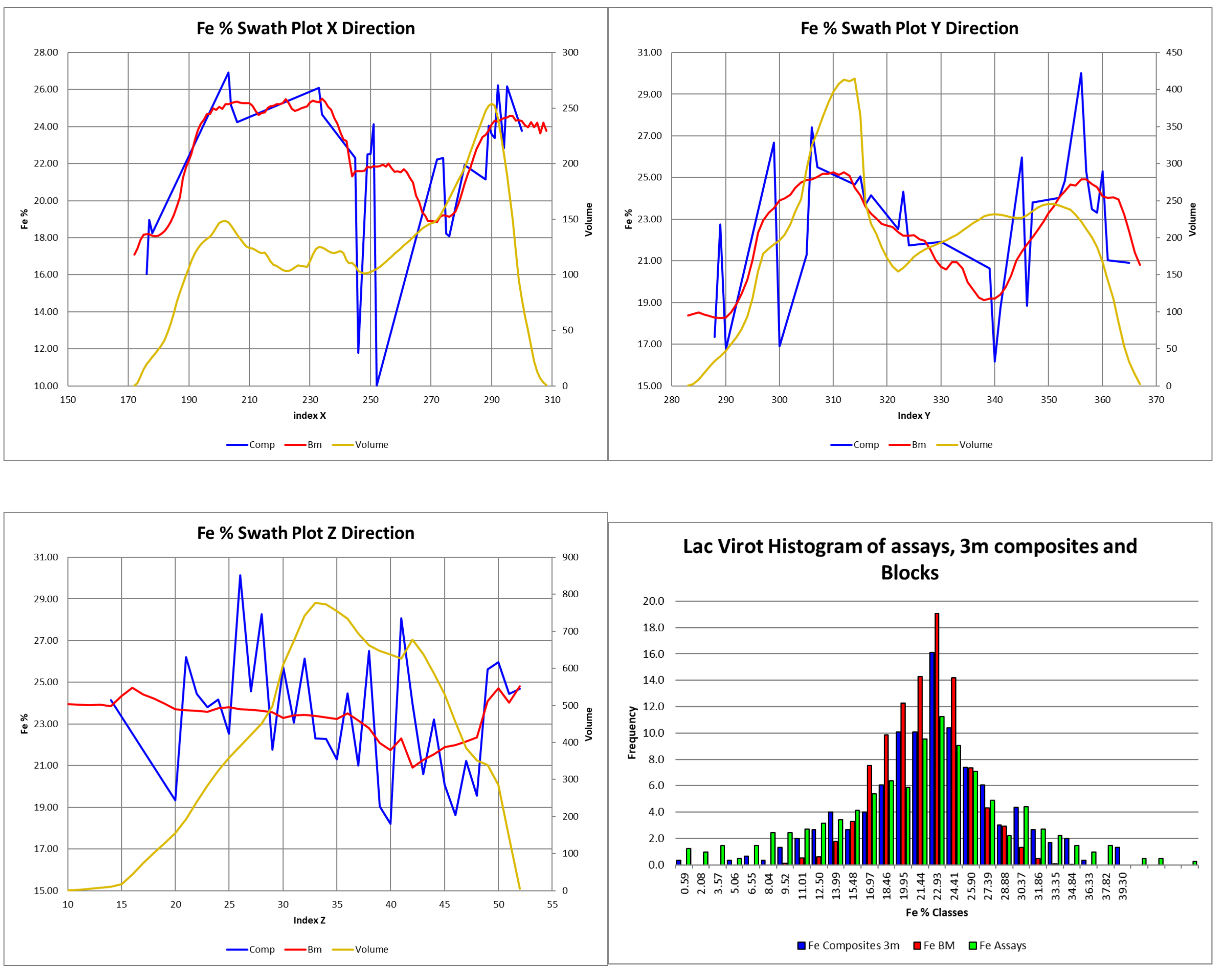
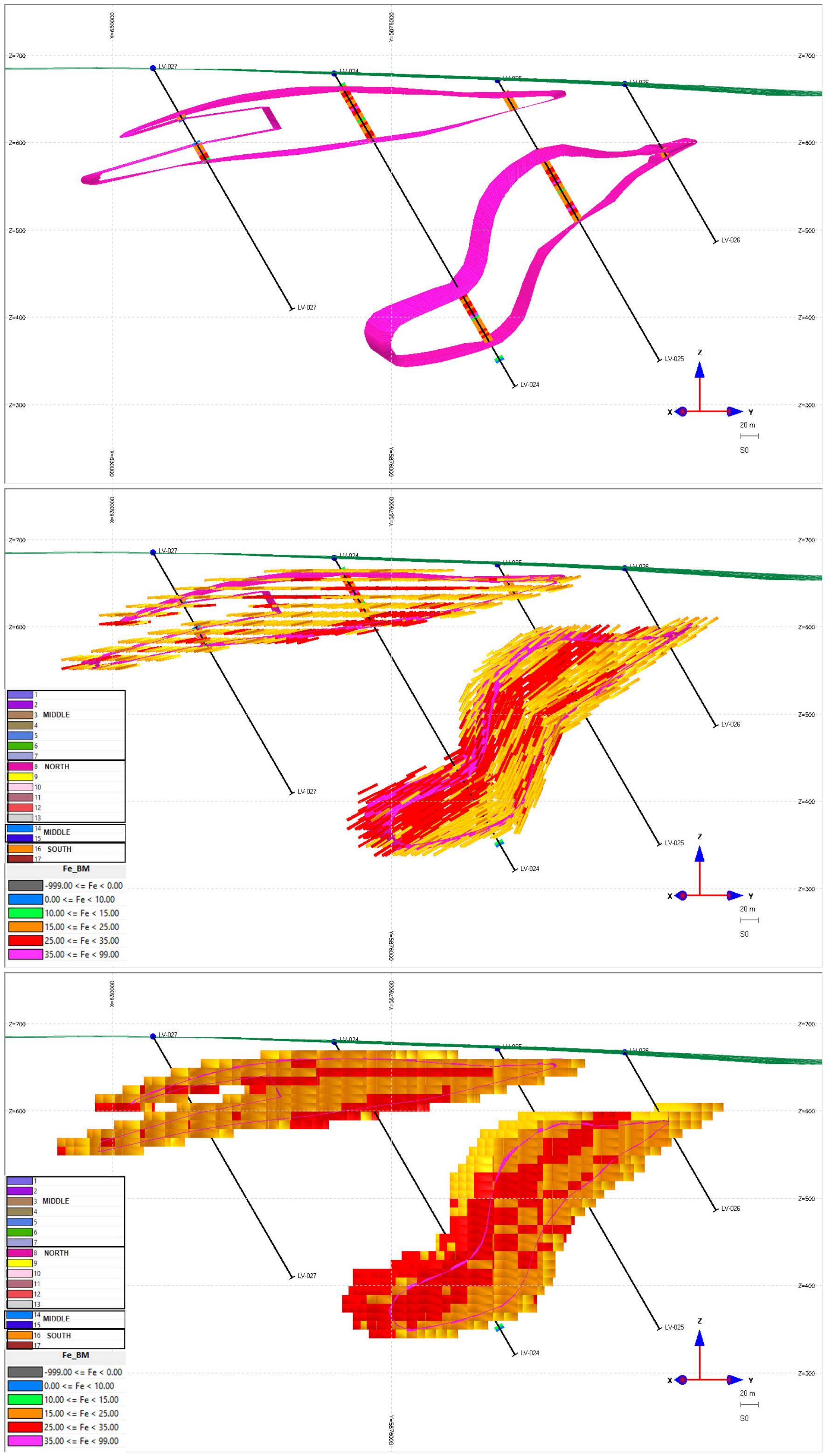


Figure 14-10: North Zone Block Model Cross-Section view to Southwest: Fe %



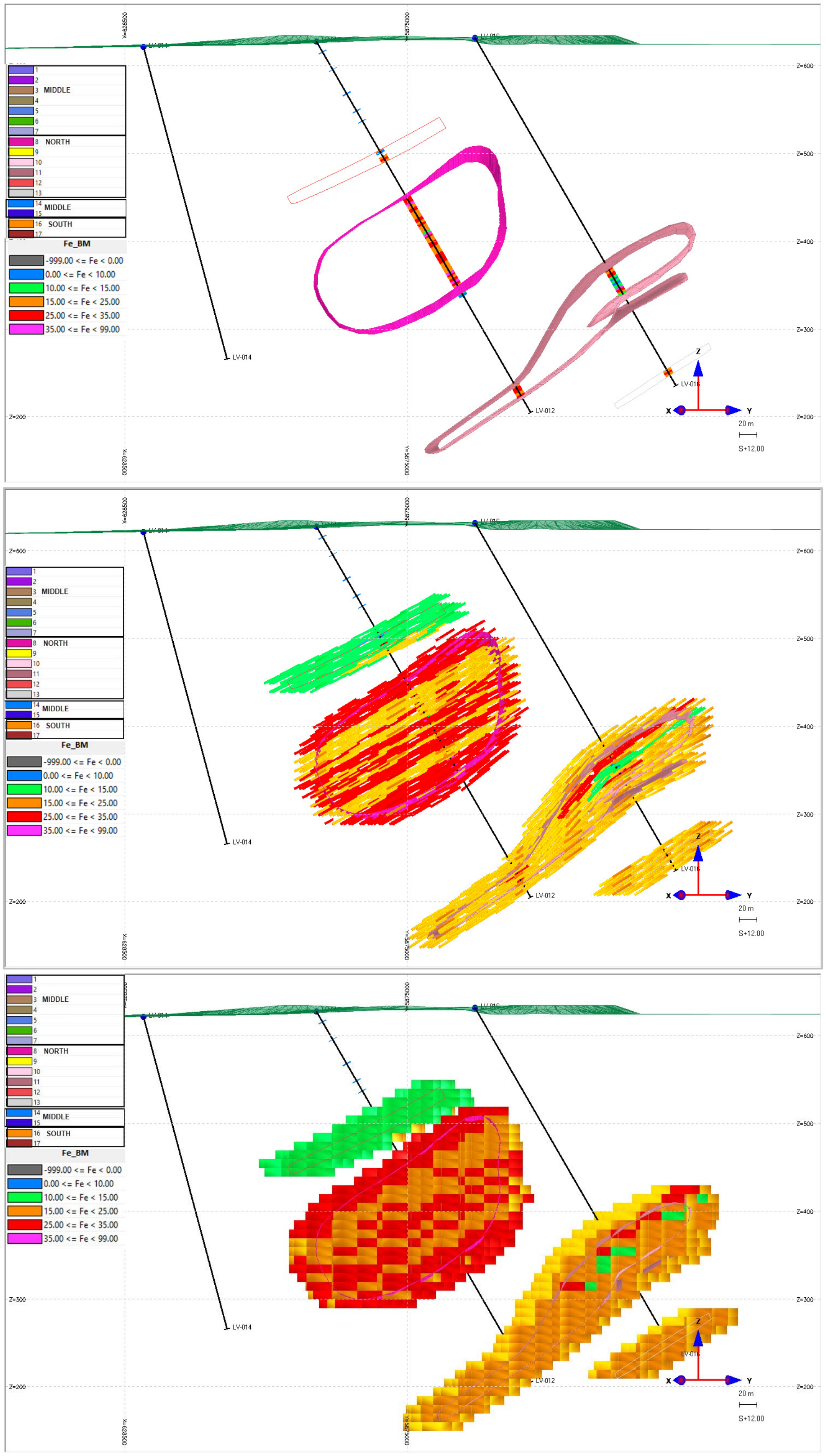
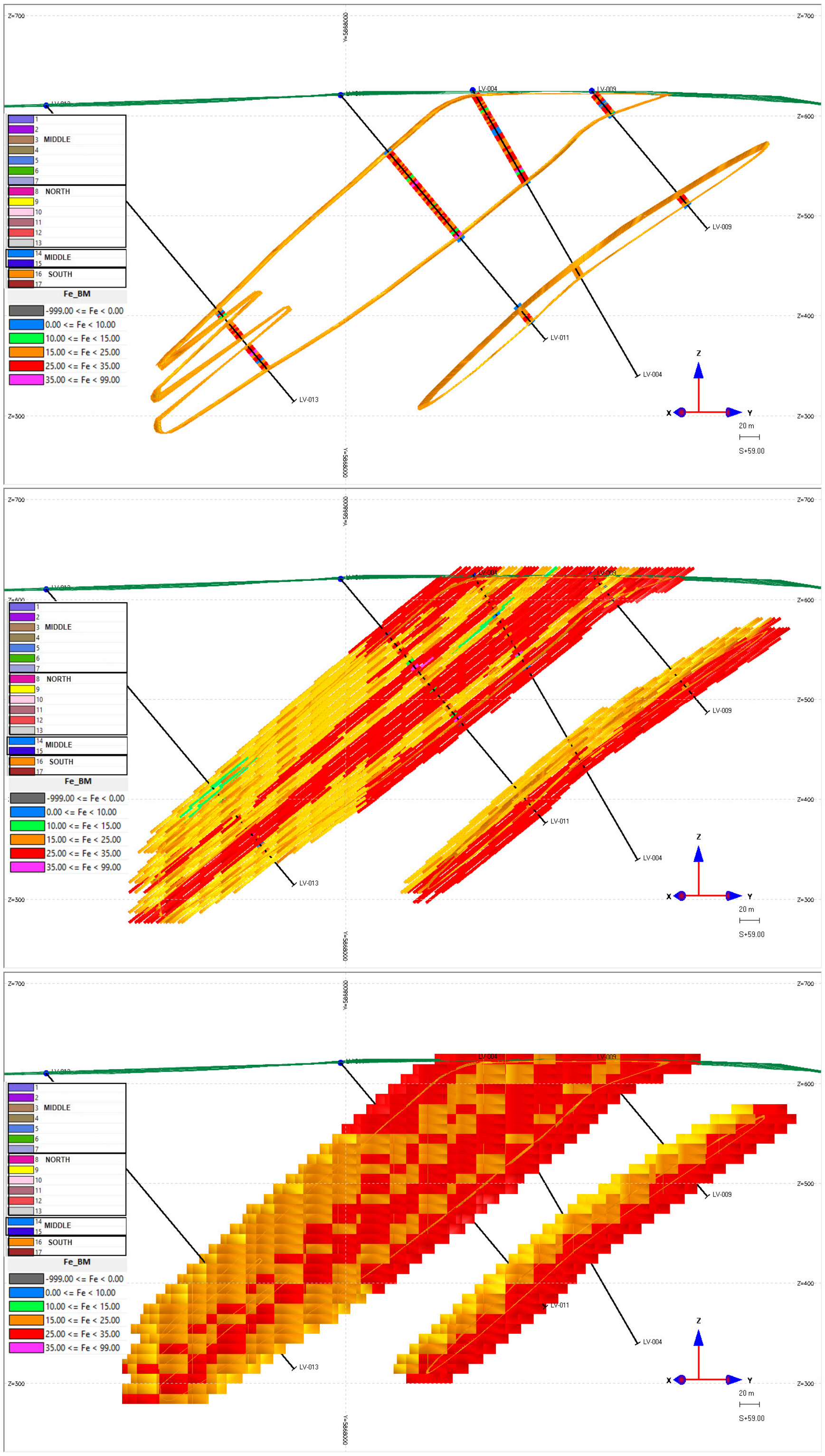

MIDDLE
NORTH
MIDDLE
SOUTH
Fe_BM
-999.00 <= Fe < 0.00
0.00 <= Fe < 10.00
10.00 <= Fe < 15.00
15.00 <= Fe < 25.00
25.00 <= Fe < 35.00
35.00 <= Fe < 99.00
LV-014
LV-012
Z=600
Z=500
Z=400
Z=300
Z=200
20 m
S+12.00

Figure 14-11: South Zone Block Model Cross-Section view to Southwest—Fe %



14.11 Mineral Resource Classification

Classification of the Lac Virot deposit (North, South, Middle; All 17 3-D solids) Mineral Resources was based on the degree of geological uncertainty; grade and spatial continuity; and variability and availability of the drilling data. The main considerations in the classification are:

- All the data that inform the Mineral Resource have been collected using acceptable principles, and the assays passed the relevant QA/QC tests.
- The geological model is adequate, and the grade shells exhibit good continuity, with relatively low variability within and between drilling sections.
- Insufficient drill hole data did not permit the modelling of a semi variogram.
- Average drill spacing is over 150 by 150 m, closer to 200 by 200 m.

Given the aforementioned factors, the Mineral Resources have been classified as Inferred, as the confidence for the estimates is low. The drill holes are sparse and local estimates cannot be reliably made.

The Mineral Resources could be affected by further infill drilling, which may result in increases or decreases in subsequent Mineral Resource estimates. Inferred Mineral Resources are high-risk estimates that may change significantly with additional data. It cannot be assumed that all or part of an Inferred Mineral Resource will necessarily be upgraded to an Indicated Mineral Resource due to continued exploration. The Mineral Resources may also be affected by subsequent assessments of mining, environmental, processing, permitting, taxation, socio-economic, and other factors.

14.12 Mineral Resource Statement

The Lac Virot Mineral Resource estimate as of February 7, 2025, is presented in Table 14-8. The Mineral Resource is stated at a cut-off of 15% Fe.

In the QP's opinion, the Mineral Resources reported herein at the selected cut-off grade have "reasonable prospects for eventual economic extraction," taking into consideration mining and processing assumptions (refer to Section 14.13).

The Lac Virot Inferred Mineral Resource is presented at a variety of cut-off grades in Table 14-9.

Table 14-8: Lac Virot Inferred Mineral Resource Estimates above 15% Fe Cut-Off Grade—February 7, 2025

Name	Fe (%)	FeO (%)	SiO_2 (%)	P_2O_5 (%)	MnO (%)	MagFeSat (%)	Volume (Mm^3)	Tonnes (M)
All Combined South, Middle & North Pits	23.33	19.61	42.40	0.04	1.22	10.85	141.5	495.2
North Pit	23.016	21.34	41.26	0.04	1.16	9.61	90.9	318.0
Middle Pits	20.88	16.90	45.33	0.04	1.10	10.05	17.5	61.1
South Pit	25.10	16.30	44.36	0.03	1.46	14.69	33.0	115.4

Notes:

- A fixed density of 3.5 t/m^3 was used to estimate the tonnage from block model volumes.
- Resources are constrained by the pit shell and the topography of the overburden layer.
- The results from the pit optimization are used solely for the purpose of testing the “reasonable prospects for economic extraction” by an open pit and do not represent an attempt to estimate mineral reserves. There are no mineral reserves on the Property. The results are used as a guide to assist in the preparation of a Mineral Resource statement and to select an appropriate resource reporting cut-off grade.
- Mineral resources which are not mineral reserves do not have demonstrated economic viability. An Inferred Mineral Resources has a lower level of confidence than that applying to a Measured and Indicated Resources and must and must not be converted to a Mineral Reserves. It is reasonably expected that the majority of Inferred Mineral Resources could be upgraded to Indicated Mineral Resources with continued exploration.
- All figures are rounded to reflect the relative accuracy of the estimate and numbers may not add due to rounding.
- Effective date February 16, 2025.
- The estimate of mineral Resources may be materially affected by environmental, permitting, legal, title, taxation, socio-political, marketing or other relevant issues.
- Based on a cut-off grade of Fe of 15%.
- Resources are constrained within Red Paramount mineral rights.
- The pit optimization and base case cut-off grade of 15% iron (Fe) considers a pricing of US$120/t of concentrate at 67.5% Fe (US$160.80 /t of concentrate at 67.5%), Combined rock processing (US$5.21/t concentrate corresponding to US$1.61/t milled), transportation (US$23.75/t concentrate corresponding to US$7.35/t milled) and general & administrative cost (US$3.75/t concentrate corresponding to US$1.16/t milled) totalling US$13.13/t milled of mineralized material, open pit mining cost of US$3.00/t mined of mineralized material, an average pit slope of 45° for fresh rock, an average pit slope of 20° for overburden, and an average mining recovery of 95%, processing recovery of 80% and dilution of 5%, and a waste density of 2.9.

Table 14-9: Lac Virot Inferred Mineral Resource Estimates Resources Grade-Tonnage at Various Fe % Cut-Off Grades—February 7, 2025

Cut-Offs Fe (%)	Fe (%)	FeO (%)	SiO_2 (%)	P_2O_5 (%)	MnO (%)	MagFeSat (%)	Volume (Mm^3)	Tonnes (M)
0	22.48	19.04	43.00	0.05	1.18	10.33	154.1	539.3
10	22.52	19.07	42.97	0.05	1.18	10.35	153.6	537.7
15	23.33	19.61	42.50	0.04	1.22	10.85	141.5	495.2
20	24.57	20.02	42.27	0.03	1.29	11.95	115.3	403.6
25	27.17	19.05	42.38	0.03	1.43	15.65	46.4	162.4
30	31.56	16.20	42.58	0.03	1.25	17.82	4.7	16.4

Notes:

- A fixed density of 3.5 t/m^3 was used to estimate the tonnage from block model volumes.
- Resources are constrained by the pit shell and the topography of the overburden layer.
- The results from the pit optimization are used solely for the purpose of testing the “reasonable prospects for economic extraction” by an open pit and do not represent an attempt to estimate mineral reserves. There are no Mineral Reserves on the Property. The results are used as a guide to assist in the preparation of a Mineral Resource statement and to select an appropriate resource reporting cut-off grade.
- Mineral Resources which are not Mineral Reserves do not have demonstrated economic viability. An Inferred Mineral Resources has a lower level of confidence than that applying to a Measured and Indicated Resources and must and must not be converted to a Mineral Reserves. It is reasonably expected that the majority of Inferred Mineral Resources could be upgraded to Indicated Mineral Resources with continued exploration. All figures are rounded to reflect the relative accuracy of the estimate and numbers may not add due to rounding.
- Effective date February 07, 2025.
- The estimate of mineral Resources may be materially affected by environmental, permitting, legal, title, taxation, socio-political, marketing or other relevant issues.
- Based on cut-off grades of 0%, 10%, 15%, 20%, 25% and 30%.
- Resources are constrained within Red Paramount mineral rights.
- The pit optimization and base case cut-off grade of 15% iron (Fe) considers a pricing of US$120/t of concentrate at 67.5% Fe (US$160.80 /t of concentrate at 67.5%), Combined rock processing (US$5.21/t concentrate corresponding to US$1.61/t milled), transportation (US$23.75/t concentrate corresponding to US$7.35/t milled) and general & administrative cost (US$3.75/t concentrate corresponding to US$1.16/t milled) totalling US$13.13/t milled of mineralized material, open pit mining cost of US$3.00/t mined of mineralized material, an average pit slope of 45° for fresh rock, an average pit slope of 20° for overburden, and an average mining recovery of 95%, processing recovery of 80% and dilution of 5%, and a waste density of 2.9.

14.13 Assessment of Reasonable Prospects for Eventual Economic Extraction

In assessing "reasonable prospects for eventual economic extraction" the Mineral Resource was reported from within a Whittle optimized pit shell using the following assumed parameters and a cut-off grade of 15% Fe.

Mining will be by open-pit methods:

- 20° slope angle in the overburden and 46° slope angle in the fresh rock
- 5% mining dilution
- 5% mining loss
- 20 m bench height
- 80% concentrate recovery.

Costs were assumed as follows:

- Open pit mining cost for drill and blast: US$3/t mined.
- Processing costs: US$1.61/t milled (US$5.21/t of conc.)
- General & administrative (G&A) cost: US$1.16/t milled (US$3.75/t of conc.)
- Transport & Logistics: US$7.35/t milled ($ 23.75/t of conc.
- Iron concentrate price:
  - US$140/t of concentrate at 67.5% Fe.
  - US$140/t of concentrate at 67.5% Fe. Transferred into $207.41/t at 100% Fe.

A plan showing the extents of the block model and surveyed topography in relation to the conceptual pit shell boundaries is shown in Figure 14-12 for the entire deposit, A plan showing the extents of the block model and surveyed topography in relation to the conceptual pit shell boundaries is shown in Figure 14-13, Figure 14-15 for the North zone, in Figure 14-16 for the Middle Zone and in Figure 14-18 & Figure 14-19 for the South zone. A section through the deepest part of the modelled pit shell is shown in Figure 14-14 for the North zone, in Figure 14-17 for the Middle zone and in Figure 14-20 for the South zone.

The pit shells cover the majority of the North and South zones grade block model both aerially and at depth; however, the North and Middle pit shell extents are marginally affected by Red Paramount mineral rights boundaries.

As seen in Figures 14-12 and 14-13 all the pit shells are constrained to the Red Paramount's mineral rights boundary. The pits are far enough away from each other to be operated as separate pits, although close enough so that mineralized material will be transported to a central facility for processing. There is no infrastructure, such as major roads, power lines, water courses or settlements, within or within the immediate vicinity of the pit shell outline.

The reader is advised that the assessment of economic potential incorporated in the Mineral Resource estimate is solely for the purpose of reporting Mineral Resources and does not represent an attempt to estimate Mineral Reserves.

Figure 14-12: Lac Virot Deposit—Plan showing Block Model Relative to Pit Shell Extents

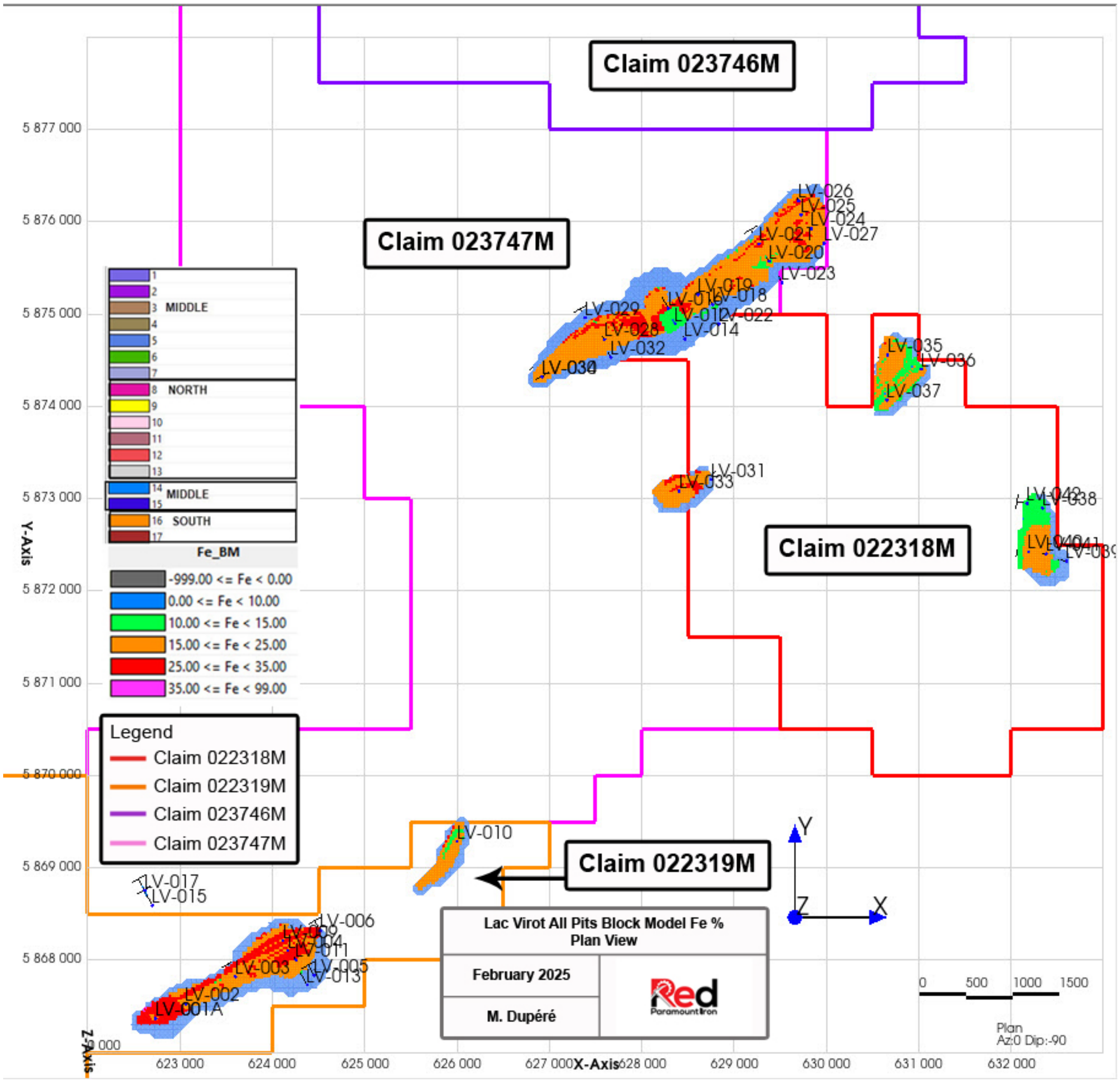


Figure 14-13: North Zone—Plan showing Block Model Relative to Pit Shell Extents

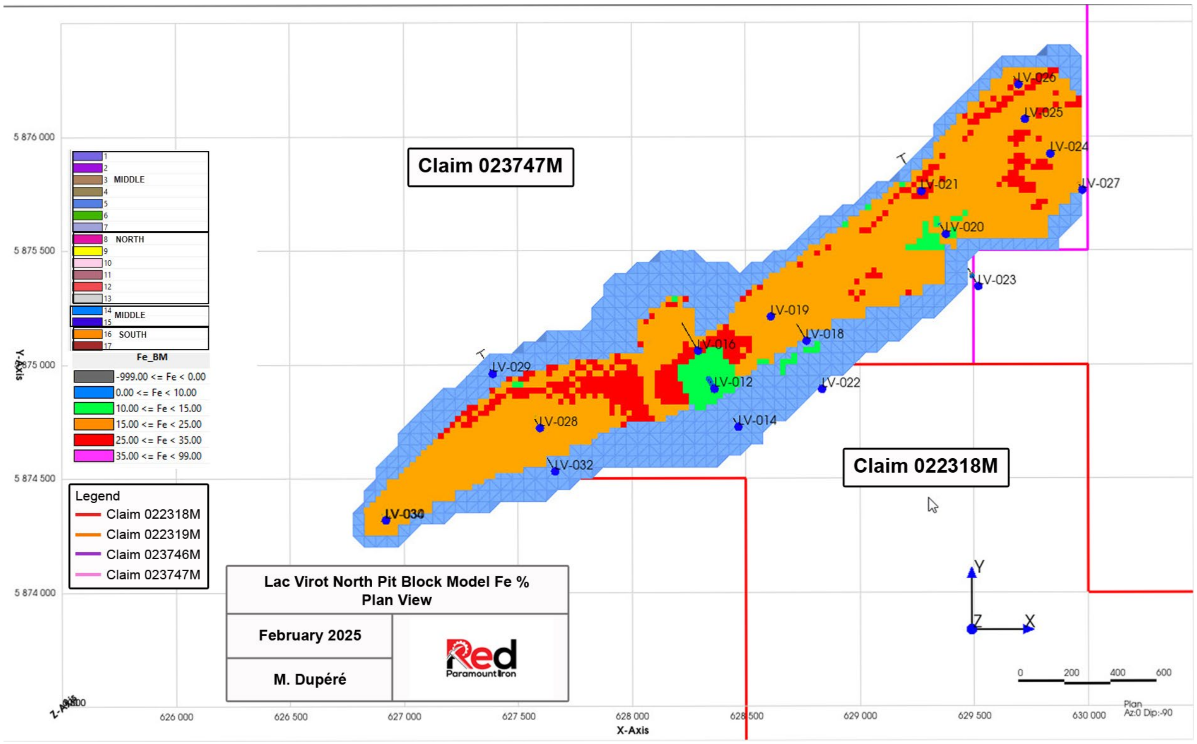


Figure 14-14: North Zone Section looking Northeast showing Block Model Relative to Pit Shell Extents and Topography

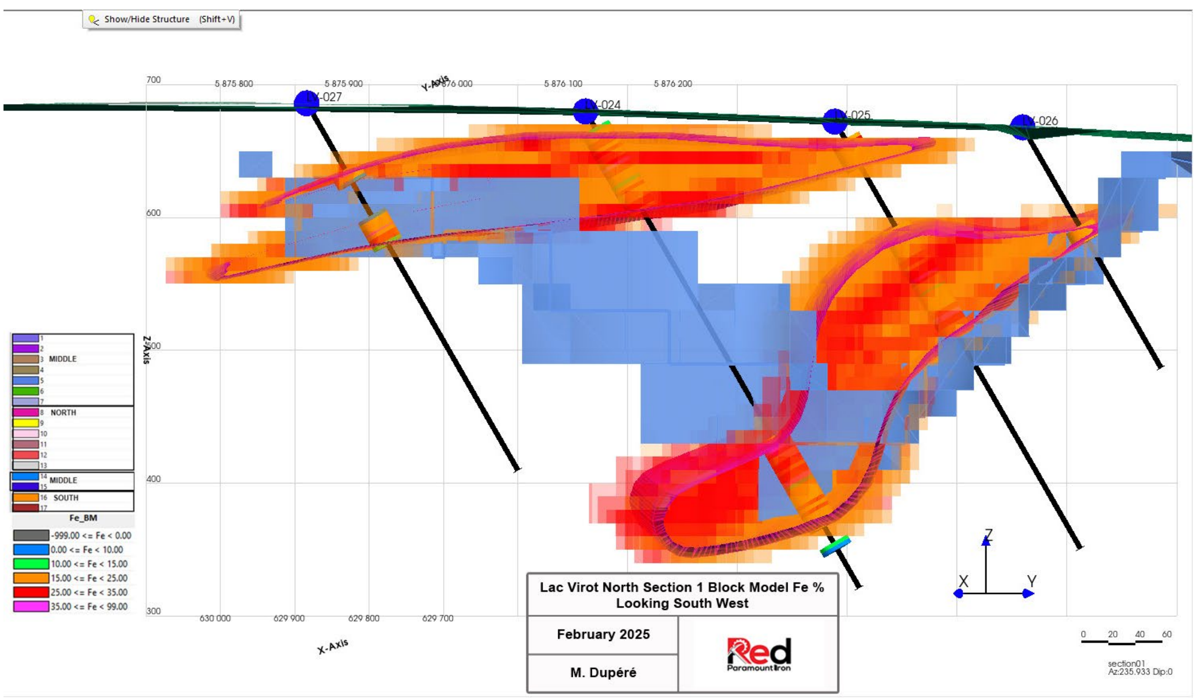


Figure 14-15: North Zone Oblique View Looking NW and SE

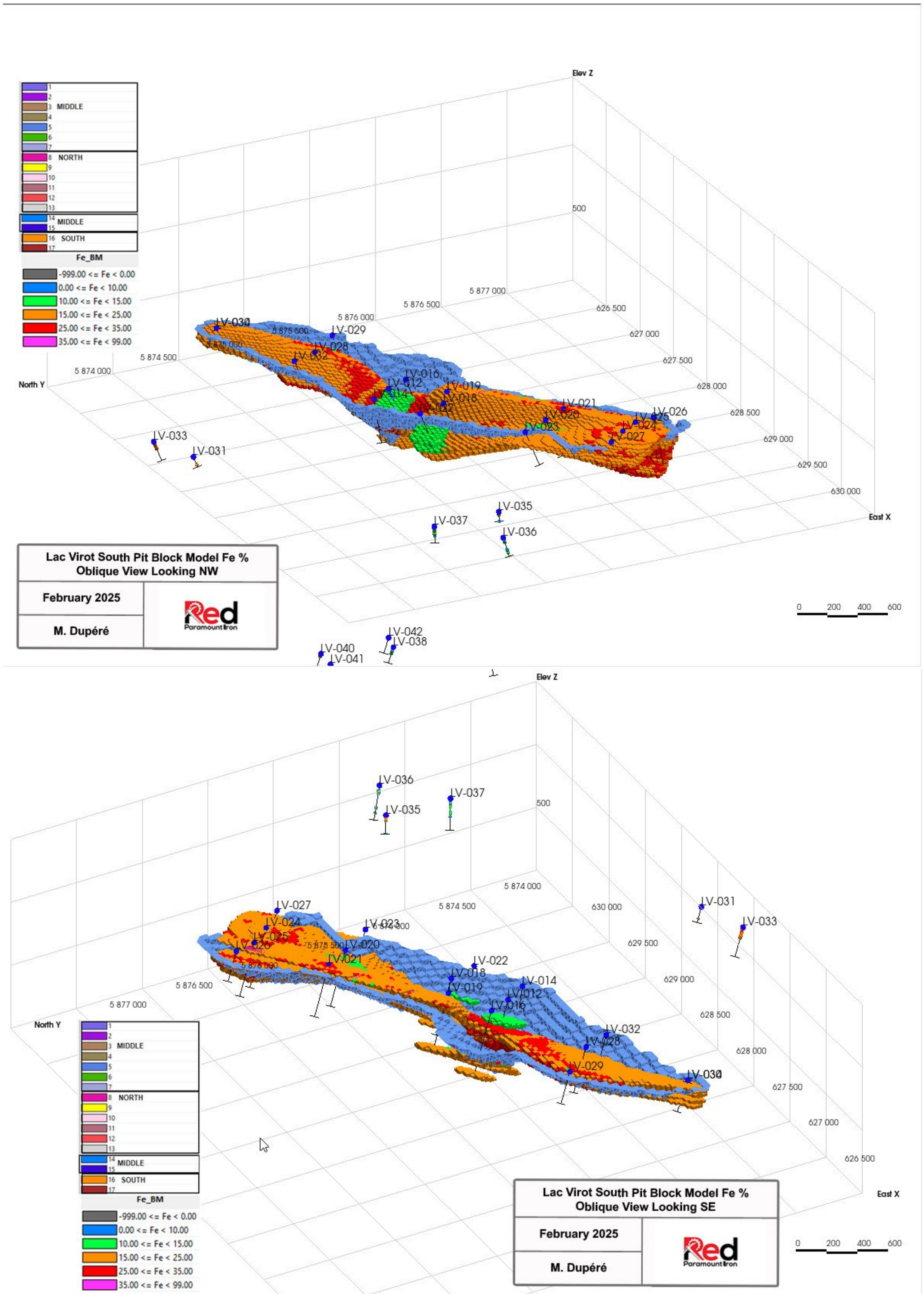


Figure 14-16: Middle Zone—Plan showing Block Model Relative to Pit Shell Extents

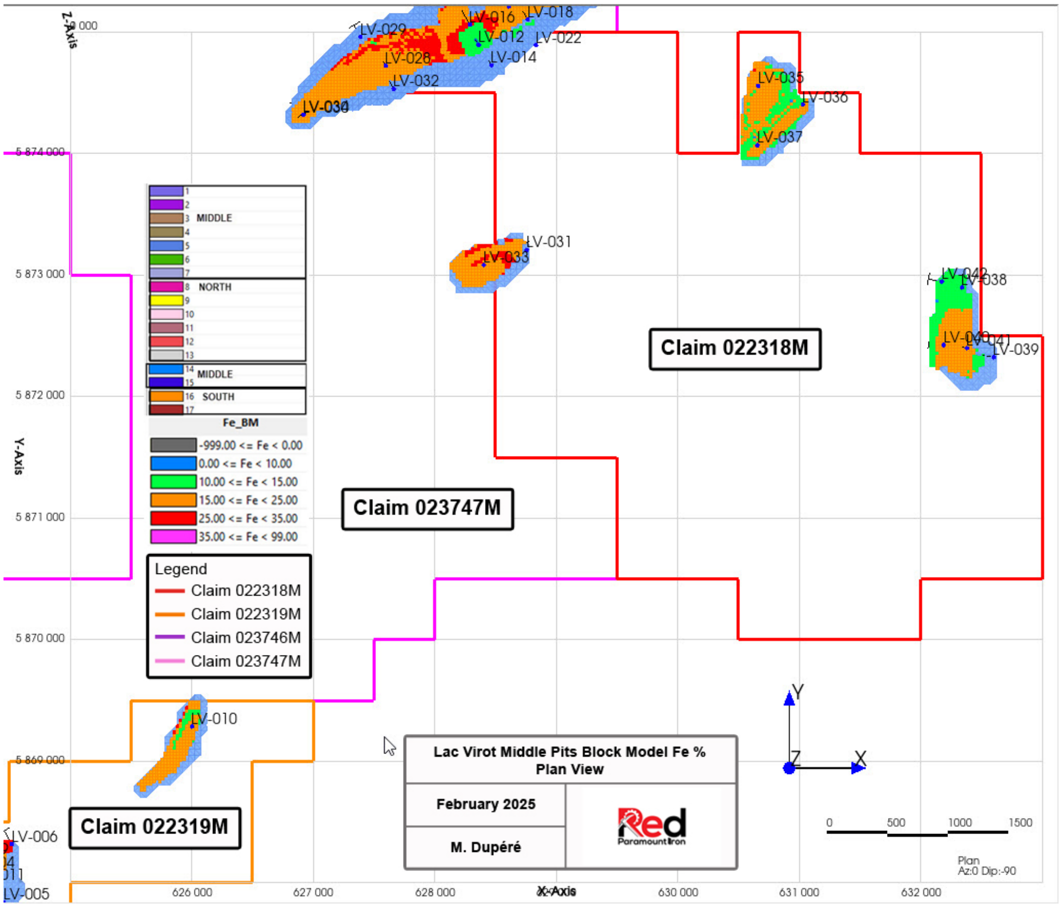


Figure 14-17: Middle Zone Section looking Northeast showing Block Model Relative to Pit Shell Extents and Topography

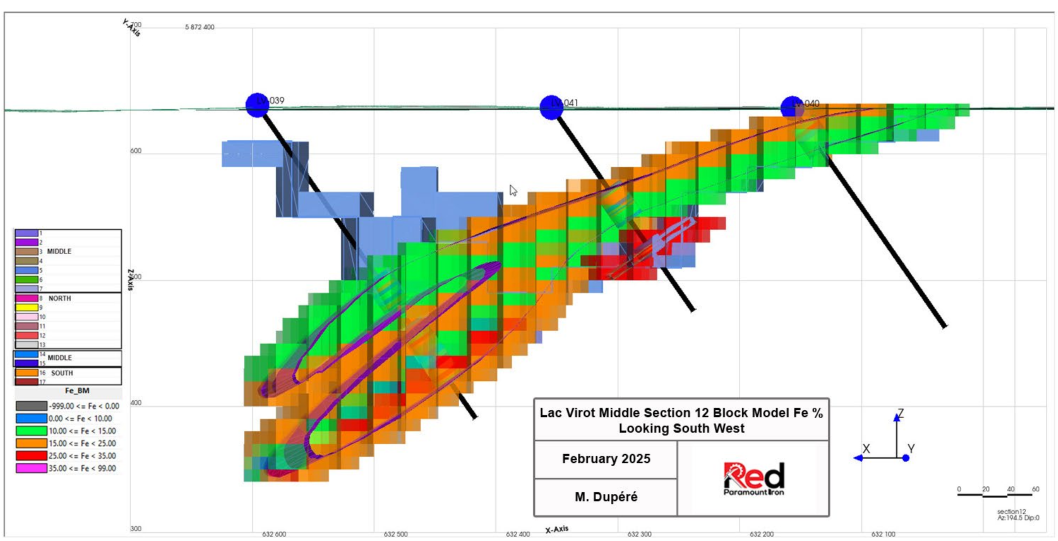


Figure 14-18: South Zone—Plan showing Block Model Relative to Pit Shell Extents

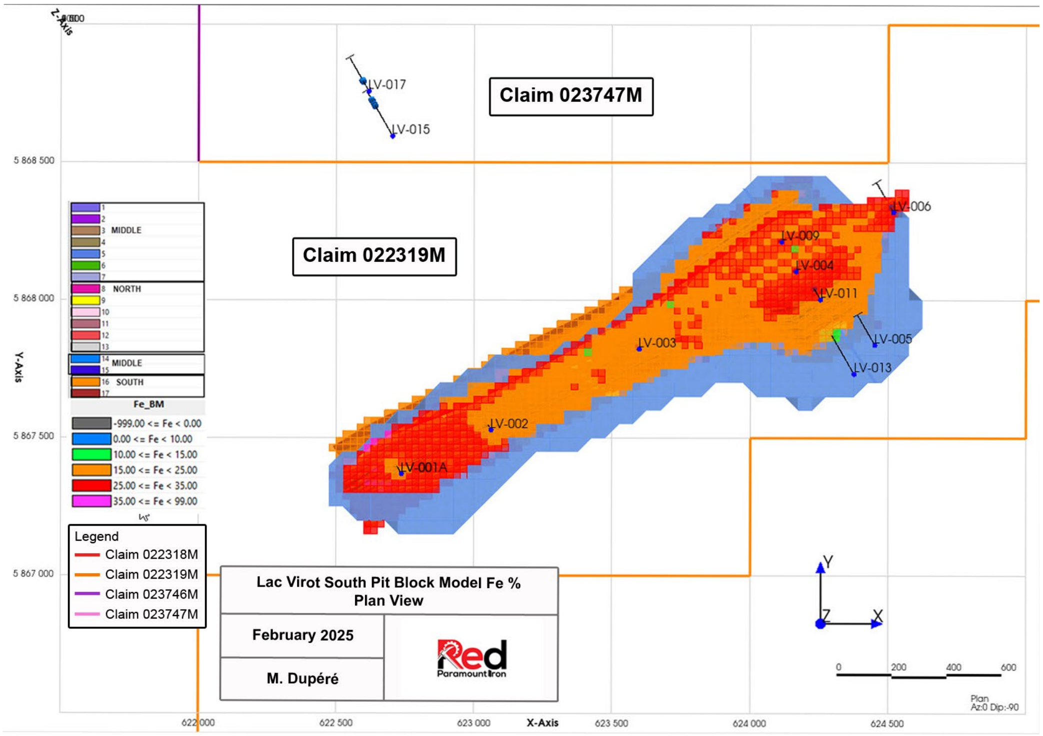


Figure 14-19: South Zone—Oblique View Looking NW

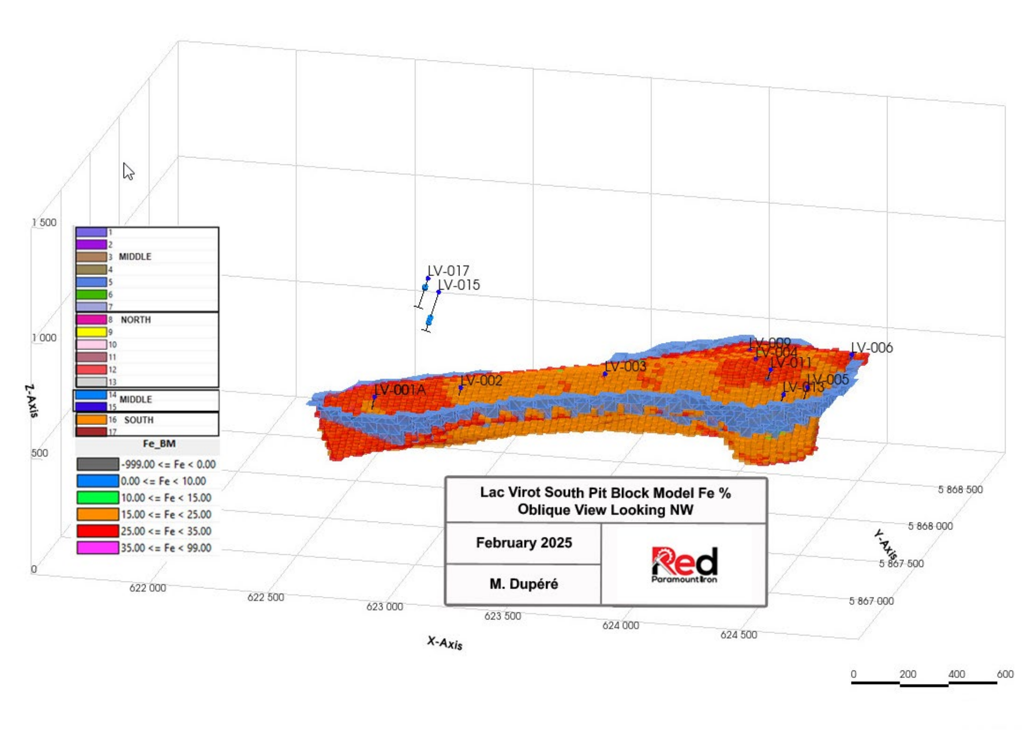
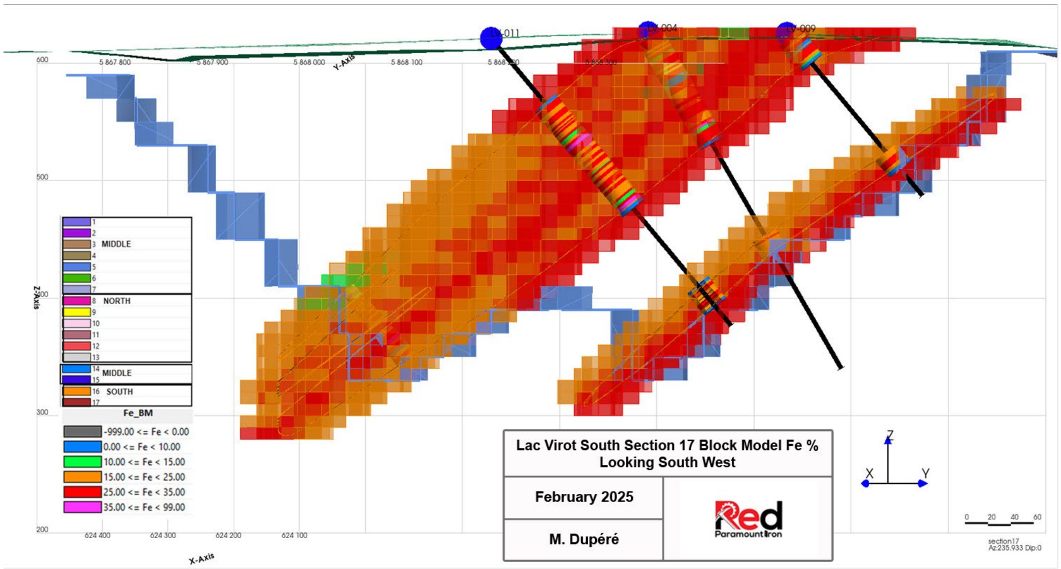


Figure 14-20: South Zone Section looking Northeast showing Block Model Relative to Pit Shell Extents and Topography



15 MINERAL RESERVE ESTIMATES

There are no current Mineral Reserve estimates stated on this Property.

16 MINING METHODS

16.1 Overview

The mine design for the Lac Virot project is founded on the geological resource model SGS developed 2023, as detailed in Section 14. The mine plan incorporates Inferred Mineral Resources, with the expectation that these resources will be upgraded to Measured or Indicated levels of confidence through future exploration and validation efforts. This approach ensures a robust and adaptable development trajectory.

16.2 Phased Development Plan

The project is structured in a phased manner. Initially, a concentrator and supporting ancillary facilities will be constructed to process a nominal capacity of 2.5 Mt/a of dry concentrate. Expansion to a higher throughput capacity is planned for a later stage, aligning with market demand and resource validation. The mine plan has been meticulously developed to align with this phased development strategy, emphasizing a low capital cost approach while optimizing the cost per tonne of production and overall operational efficiency. This approach ensures that initial capital expenditures are minimized by focusing on essential infrastructure and scalable systems that support long-term growth without incurring unnecessary upfront costs.

16.3 Regulatory Compliance

The mine design incorporates constraints dictated by the mining allotment permit, ensuring all operations remain within the approved boundaries and comply with applicable regulations.

16.4 Mining Method

A conventional open-pit mining method has been selected for the Project, employing truck and shovel operations complemented by traditional drill and blast. The mining process involves:

- Stripping and stockpiling vegetation and topsoil for future reclamation activities.
- Managing overburden, which will either be placed in designated waste dumps or repurposed as construction material for site infrastructure.
- Extracting mineralized material and waste rock using 15 m-high benches, constructed using drill and blast, with material loaded into haul trucks using hydraulic shovels.

16.5 Pit Configuration

The mining operation will consist of four separate open pits according to the mining development plan. The waste rock from each pit will be transported to one of three designated waste rock storage areas.

The geographical layout is as follows:

- Pits 1, 2, and 4 are in the northeastern section of the property.
- Pit 3 is in the southwestern section of the property.

16.6 Material Handling

The extracted ore will be transported directly to a centrally located crusher, strategically positioned between Pits 1 and 3. This location minimizes haul distances and supports efficient material handling.

The pit locations are discussed in Section 16.2.8 and shown in Figure 16-7.

The primary mining fleet for the Lac Virot project has been designed to meet production demands efficiently and sustainably. The equipment lineup includes 34 m^3 hydraulic shovels, each with an annual capacity of 19.4 Mt/a, supported by a fleet of 220-tonne haul trucks. This truck and loader combination allows for an efficient 4-pass load on material. Auxiliary loading support is provided by 15 m^3 front-end loaders, complemented by graders, water trucks, production drills, dozers, and other standard mining equipment. Details of this fleet are elaborated in Section 16-9.

Pre-stripping activities will take place over a two-year period, before the start of production mining. This phase is critical to preparing the site and will allow for a smooth ramp-up of operations. Material movement will increase from 7Mt/a in Year -1, to 20 Mt/a in Year 1. By Year 12, total material movement will reach 30 Mt/a, reflecting the progressive scaling of operations. This approach ensures that the mine is fully operational by Year 1, providing sufficient material to meet the mill's capacity of 8–9 Mt/a throughout the Project's 27-year mine life.

The scheduling strategy is designed for continuous and efficient production, with multiple pits being active throughout the mine life. The staggered development of multiple pits ensures uninterrupted ore supply to the mill while also optimizing equipment efficiency. By spreading out haulage fleets across multiple active pits, potential congestion is minimized, resulting in improved haulage efficiency and reduced operational bottlenecks.

The project achieves an average strip ratio of 1.4 over its life, with early pits benefiting from lower ratios, such as 0.97 in Pit 1, enabling early-stage profitability. In later stages, such as Pit 4, the strip ratio increases to 1.82, reflecting the natural progression of mining deeper ore zones. This staggered approach to pit development balances the operational load and ensures consistent material handling throughout the Project lifespan.

The design considerations for the pits, waste dump management, and mining schedules ensure that the Lac Virot project remains efficient and sustainable. Equipment selection has been optimized to support the staggered pit development strategy, which enhances operational adaptability and ensures the Project meets its production and economic targets. This robust plan positions the Lac Virot project as a well-structured and sustainable mining operation.

The following section describes the pit design, waste dump design, mining schedule, equipment selection, and other operational considerations.

16.7 Open Pit Mine Design

The result of the design process is a four-pit mining operation. The sequencing of the pits allows for steady ore feed to the mill, without the need for significant stockpiling activities. This reduces the overall land-use of the operation, and limits any rehandle costs to those considered at the run-of-mine (ROM) crusher stockpile. This section of the report will detail the design criteria used in the pit design process.

16.7.1 Key Design Criteria

The key mine design criteria are laid out in Table 16-1. These values were determined from both the requirements of the chosen equipment, as well as the experience of other local mining operations.

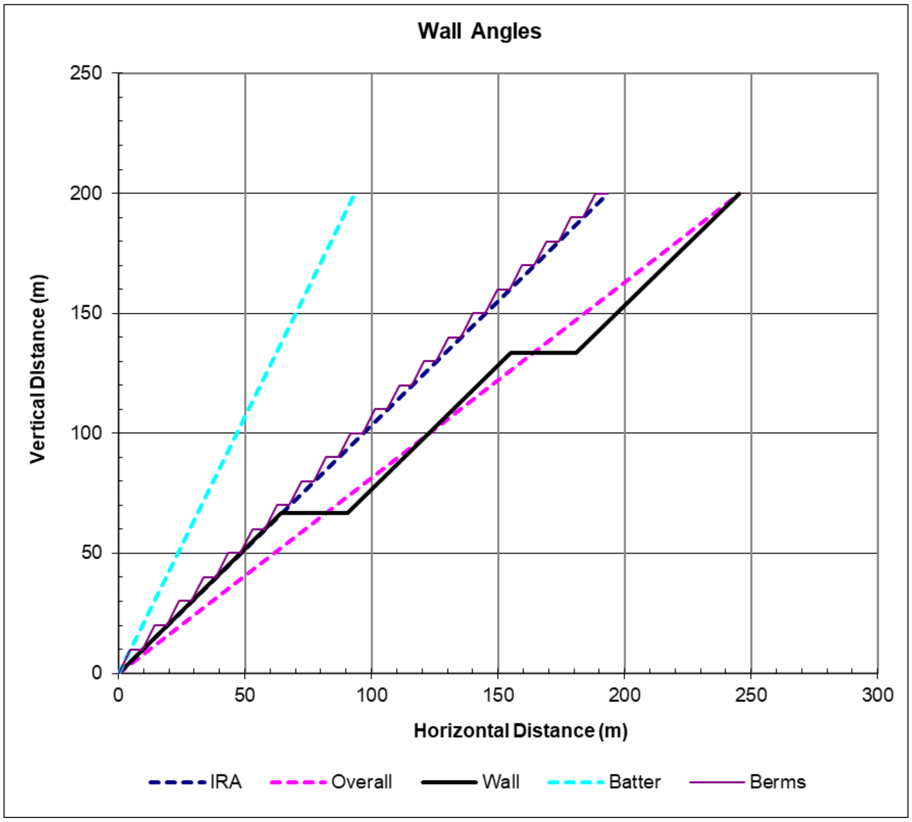
Table 16-1: Pit Slope Input Parameters

Parameter	Unit	Value
Bench Height	m	10
Berm Width	m	5
Bench Berm Spacing	#	1
Bench Face Angle	degrees	65.0
Overall Wall Height	m	200
Road/Step-Out Width	m	26
Passes through Wall	#	2

16.7.2 Geotechnical Considerations

The calculation of inter-ramp and overall slope angles was based on a variety of input values. The result of the pit slope calculation was an inter-ramp angle of 46°, and an overall slope angle of 41°, as shown in Figure 16-1.

Figure 16-1: Inter Ramp and Overall Slope Angles



16.7.3 Haul Roads

Haul roads have been designed to accommodate a fleet of 220 tonne haul trucks. A ramp width of 26 m will allow for two-lane traffic, a safety berm, and ditches. Ramps have been designed with a maximum grade of 10%, with a 2% rolling resistance.

16.7.4 Pit Optimization

The guiding pits for detailed design were determined using GEOVIA's Whittle optimization software. The software used a series of technical and cost parameters described in Section 16.2.5 to generate a series of nested Revenue Factor shells.

16.7.5 Optimization Parameters

In the pit shell-optimization process, geotechnical parameters were incorporated into each block to ensure compliance with the appropriate inter-ramp angles. Economic parameters were factored in by estimating the net smelter return (NSR) value for each block. This NSR value takes into account metal prices, off-site costs, royalties, metal recoveries, concentrate transportation costs, smelter-related costs, deductions, and exchange rates. Additionally, operating costs, including milling, mining, and G&A expenses, were applied. Mining costs were incrementally adjusted at lower elevations to reflect the increased haulage costs associated with greater pit depths. A summary of the parameters used in the Whittle optimization are presented below in Table 16-2.

Table 16-2: Whittle Optimization Parameters

Parameter	Unit	Lac Virot
Mining Cost (Total Mined Material)	$/t	2.91–3.44
Incremental Mining Cost	$/t/bench height	0.022
Mining Dilution	%	5
Mining Recovery	%	95
Processing Cost	$/t concentrate	4.79–5.63
General and Administrative Cost	$/t ore	3.75
Processing Recovery	%	75
Selling Price	$/t concentrate	140
Concentrate Grade	%	65.2
Shipping and Logistics Cost	$/t concentrate	23.75
Discount Rate	%	8
Process Rate	Mt/a	8.5
Working Days	d	355

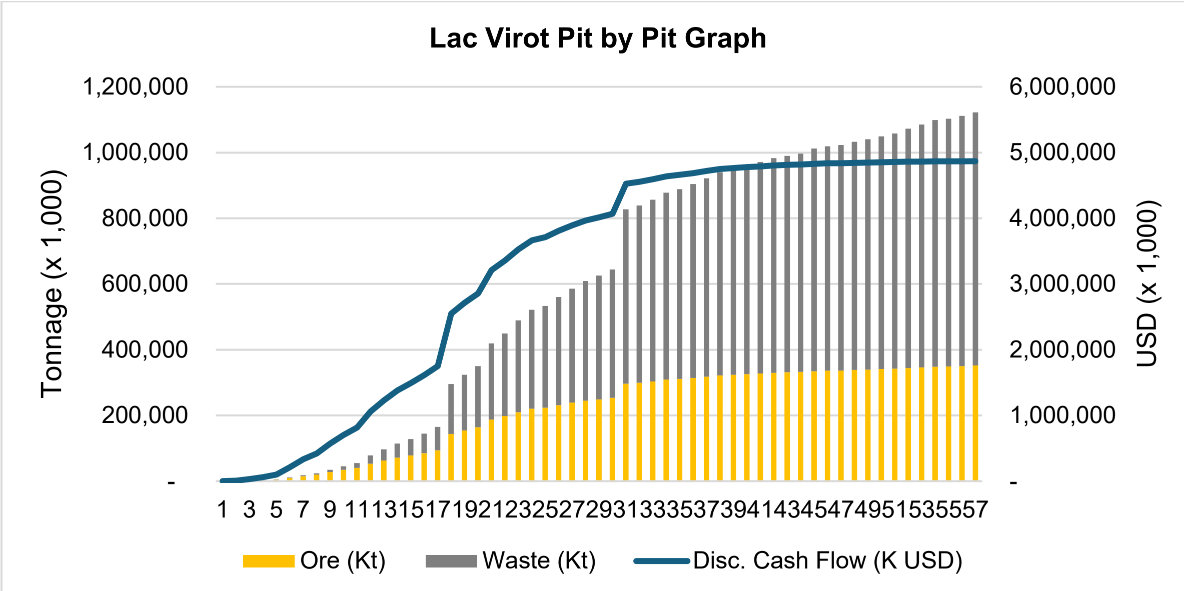
16.7.6 Whittle Pit Selection

Using the parameters above, a series of revenue factor pits were produced by adjusting the block gross revenue with a unitless revenue factor, which ranged from 0.1 to 1.0 in increments of 0.01.

Referring to Figure 16-2, the pit shell that best represents the final designed pit, is Shell 25. This pit corresponds to a revenue factor of 0.67, or 67% of the base NSR for the Project. Shell 25 yields 530 Mt of total material, 224 Mt of which are above the economic cut-off grade (Inferred).

Pit shell 57, which corresponds to revenue factor 1, yields more than 350 Mt of economic material, which could add 10 extra years at the same production rate. This should be viewed as an opportunity to continue evaluation of this project at higher concentrate production rates.

Figure 16-2: Whittle Optimization Results, Based on Revenue Factors Between 0.1 and 1



16.7.7 Mining Loss and Dilution

No mining dilution was considered during optimization no the production plan because dilution has been accounted-for during construction of the resource model.

16.7.8 Pit Design

The detailed mine design resulted in four independent pits, which will each be mined as a single phase. A summary of each pit is provided in Table 16-3. The pits vary in size from the initial Pit 1 of only 30 Mt of total material, to the final Pit 4 design, which includes 203 of material.

Table 16-3: Pit Summary

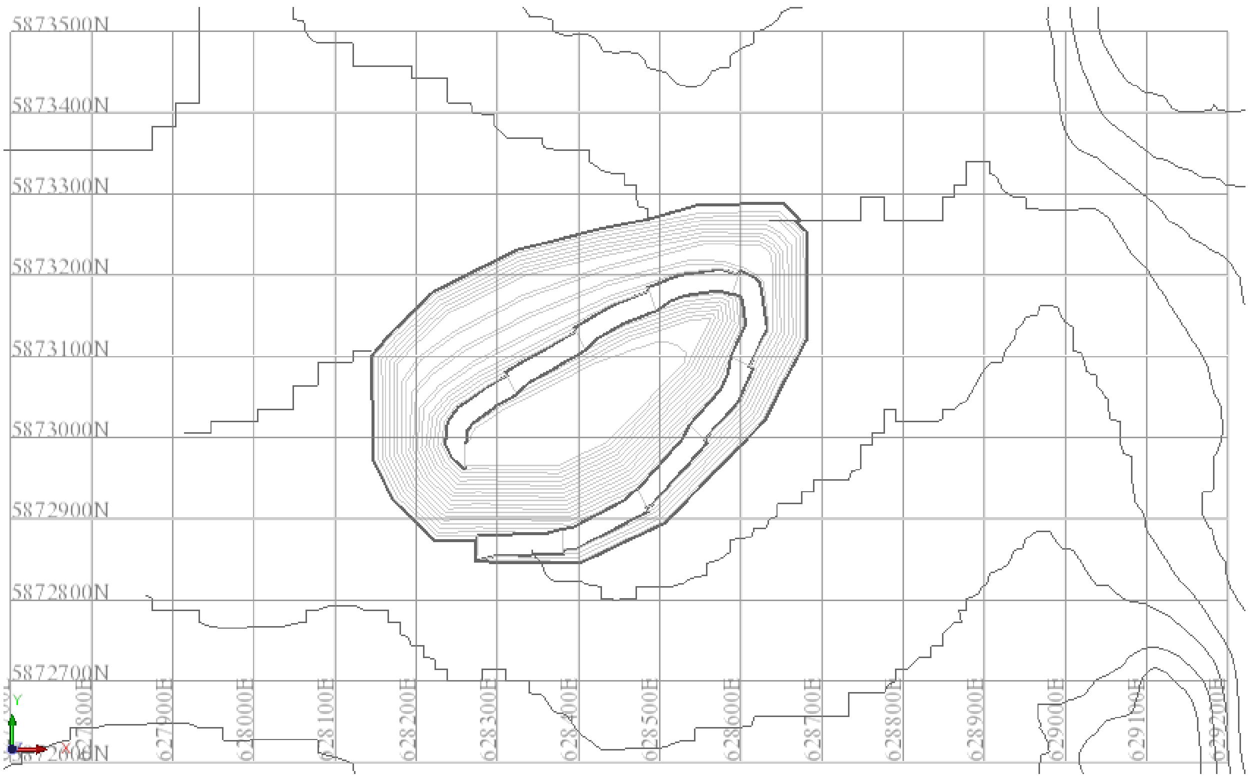
Pit	Mined (kt)	Fe (%)	FeO (%)	P_2O_5 (%)	Waste (kt)	Total (kt)	Strip Ratio (W:O)
1 (Mid)	15,223	23.59	21.16	0.02	14,757	29,980	0.97
2 (North)	61,627	23.29	21.13	0.03	77,216	138,843	1.25
3 (South)	78,454	24.92	16.07	0.03	95,645	174,099	1.22
4 (North)	71,980	24.78	22.18	0.05	130,697	202,677	1.82
Total	**227,283**	**24.35**	**19.72**	**0.04**	**318,315**	**545,598**	**1.40**

Pit 1 of the Lac Virot project focuses on mineralized material close to the processing facility, strategically chosen to optimize early-stage operational efficiency. This proximity to the mill minimizes haul distances, significantly reducing the number of trucks required during the initial years of mining operations. The shorter hauls contribute to lower operating costs and enhanced equipment utilization.

The Pit 1 design encompasses a total of 30 Mt of material, of which 15.22 Mt could potentially be classified as ore, resulting in an exceptionally favorable strip ratio of 0.97. All waste material generated during this phase will be transported to the Central Pit waste stockpile.

The pit spans elevations ranging from 510 to 605 m, with an overall footprint of approximately 600 m long and 380 m wide. For detailed spatial layouts, including toe and crest positions, refer to Figure 16-3, which provides a comprehensive map of the Pit 1 design.

Figure 16-3:* *Pit 1 (Mid Pit) Design

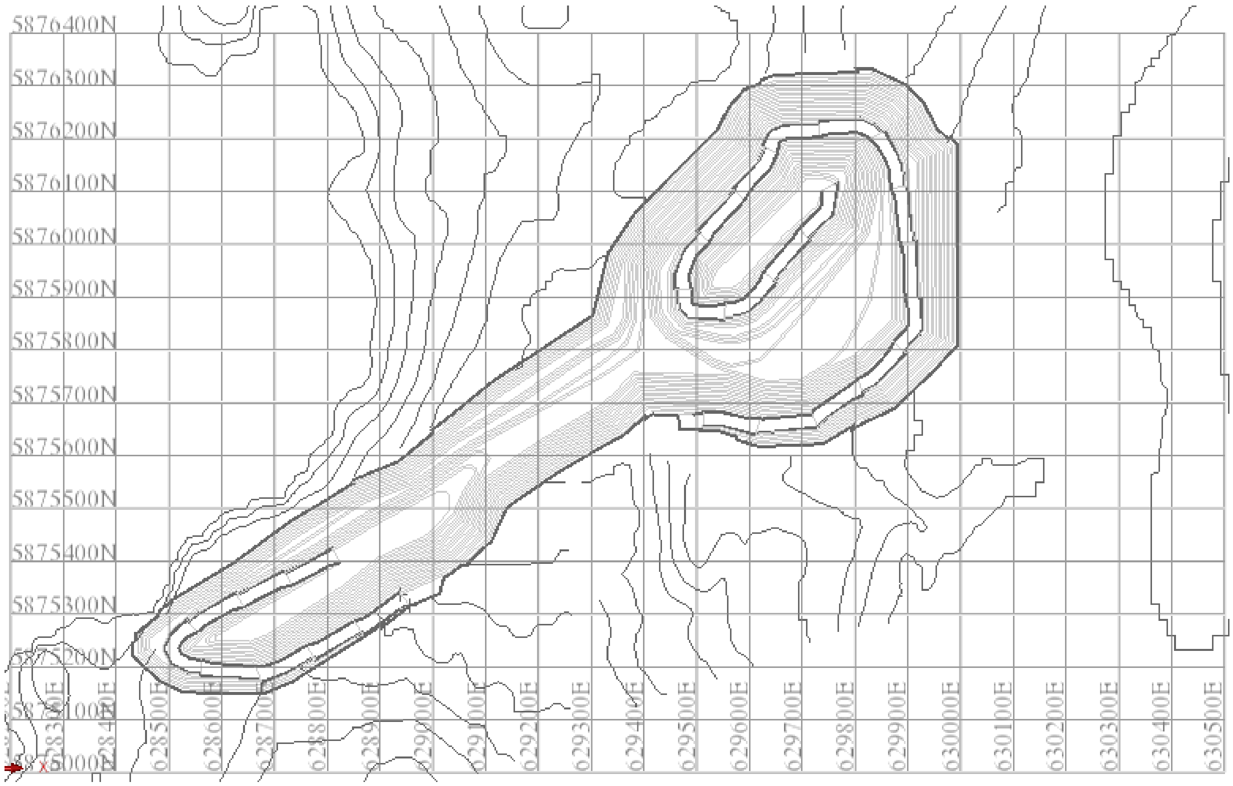


Pit 2 of the Lac Virot project is in the northeastern extent of the property and represents a significant stage in the mine's operational timeline. This pit will be mined over 20 benches, culminating at an elevation of 490 masl. Mining operations in Pit 2 are scheduled to commence in Year 1 of the mine's life and will span an 11-year period during which the pit will produce a total of 61.6 Mt. The pit is designed with a strip ratio of 1.25, reflecting a balanced approach to material handling and resource extraction.

Waste material generated from Pit 2 will be transported to the North Pit waste stockpile, ensuring streamlined material management. The pit design incorporates two independent ramp systems to support operations effectively. The first ramp system services the northeast section of the pit, while the second provides access to the narrower southwest section. This dual-ramp configuration enhances operational efficiency by minimizing haul distances, reducing haulage congestion, and improving access to critical zones within the pit.

Pit 2 is approximately 1,800 m long and 610 m at its widest point. The narrower southwest section of the pit measures around 220 m wide, requiring tailored operational planning to optimize extraction in this area. See Figure 16-4 for a toe and crest map of the Pit 2 design.

Figure 16-4: Pit 2 (North Pit) Design

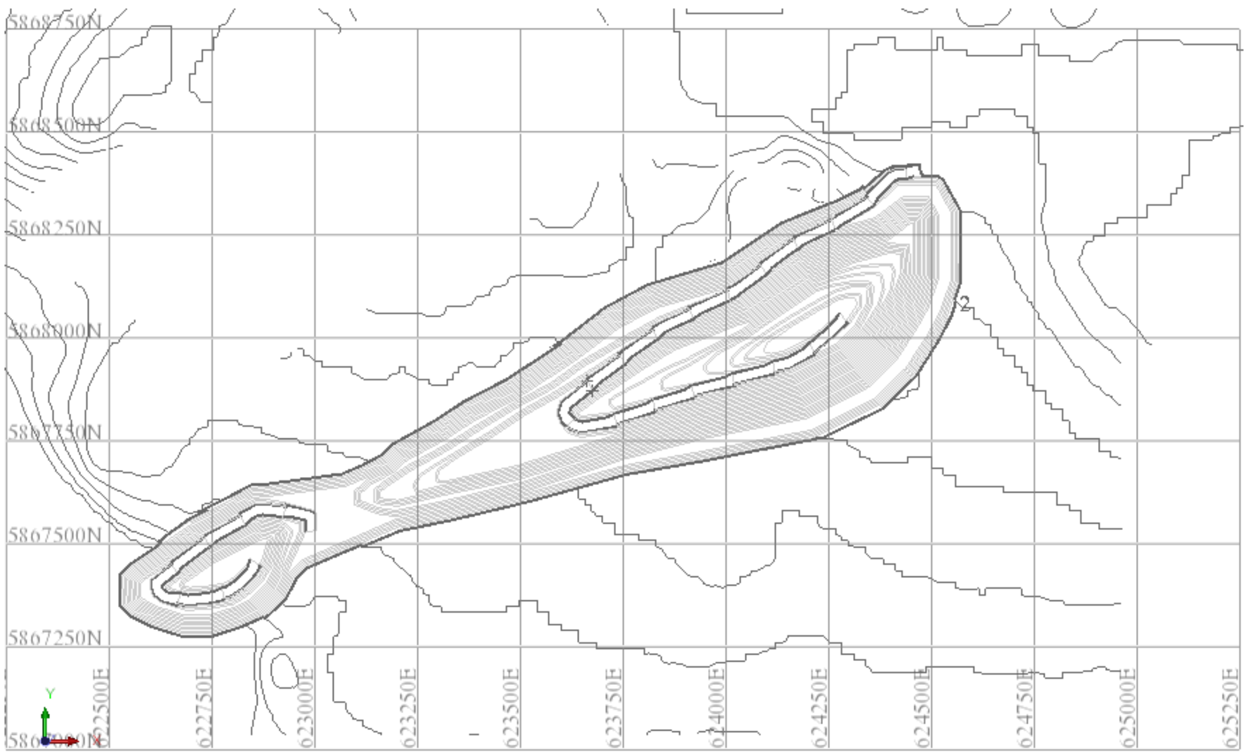


Pit 3 of the Lac Virot project is distinct, as the only pit southwest of the mine's fixed infrastructure. Covering an area of 100 ha, this pit features a unique design that includes two separate pit bottoms, each equipped with its own dedicated ramp system to ensure efficient material extraction and haulage operations.

Mining activities in Pit 3 will be conducted across 19 benches, each 10 m high, spanning elevations between 610 and 430 masl. The pit is designed to manage a total of 174 Mt of material, with an overall strip ratio of 1.22. However, the strip ratio varies significantly across benches, ranging from a high of 2.44 at the 590-m bench to a low of 0.23 at the 470-m bench.

Waste material generated from Pit 3 will be directed to the South Pit Waste Stockpile, ensuring effective material management and minimizing environmental impact. The pit itself measures approximately 2,200 m in length and varies in width, with the southern section being narrower at 220 m, while the northern section widens to 500 m. See Figure 16-5 for a toe and crest map of the Pit 3 design.

Figure 16-5: Pit 3 (South Pit) Design



The final and largest pit of the Lac Virot operation, Pit 4, is southwest of Pit 2. Similar to Pit 2, all waste material generated from this excavation will be directed to the North Pit waste stockpile, ensuring efficient and centralized material management.

Before significant extraction can commence, the pit design requires removing five pre-stripping benches to access meaningful quantities. Once production begins, mining will progress through 23 benches, ultimately yielding 71 Mt of material with an overall strip ratio of 1.82. Notably, the final 20.4 Mt of material will be extracted at an exceptionally low strip ratio of 0.075, reflecting the efficient recovery of resources in the later stages of the pit.

The pit covers an area approximately 1,200 m long and 600 m wide, providing ample space to accommodate the required mining operations while ensuring safe and efficient equipment movement. See Figure 16-6 for a toe and crest map of the Pit 4 design.

Figure 16-6: Pit 4 (North Pit) Design

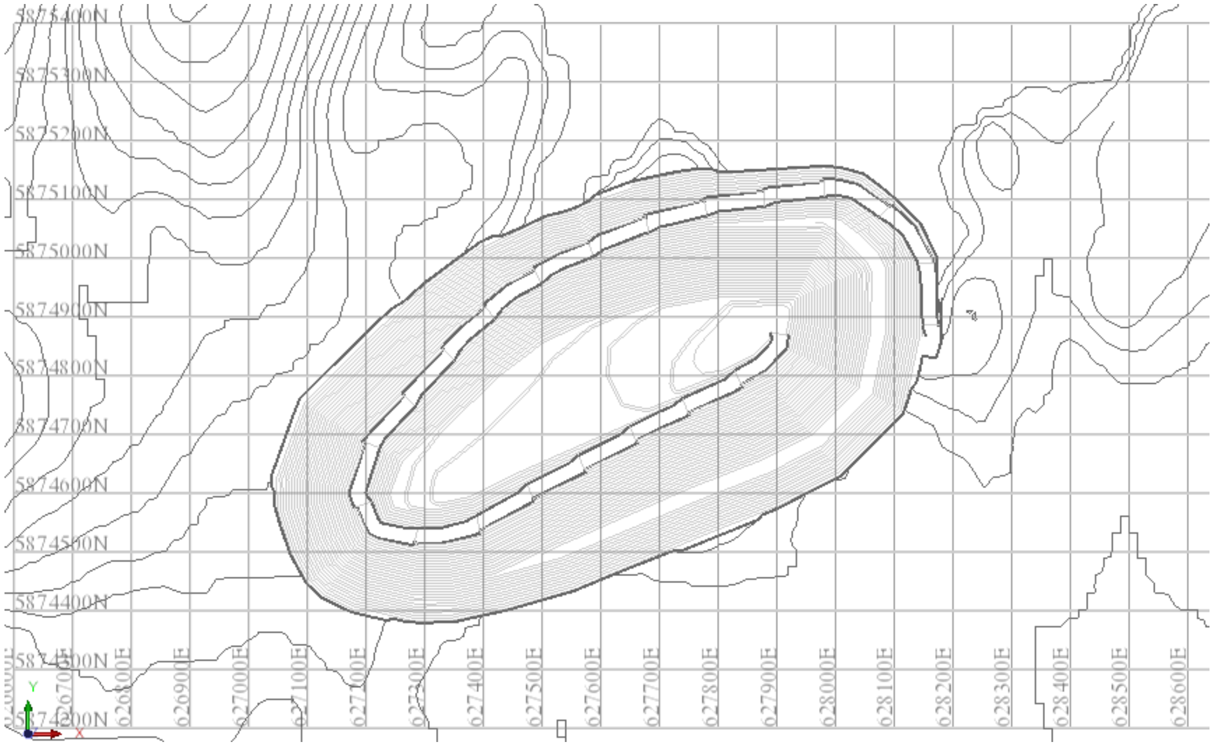
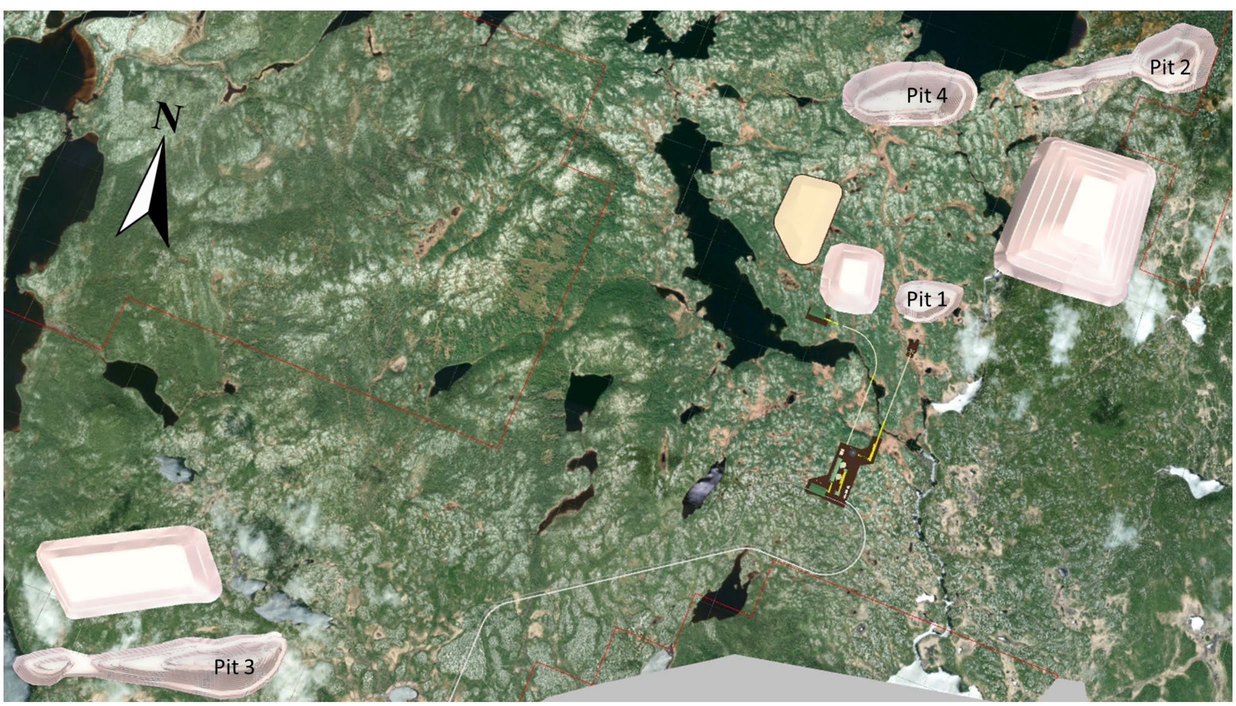


Figure 16-7: Pit Locations



16.7.9 Material Stockpiles

The mine design, detailed in Section 16.7, ensures that extraction rates are synchronized with the mill's processing capacity. This approach minimizes the need for extensive, long-term stockpiles, thereby reducing overall land use and limiting rehandling costs to those associated with the ROM stockpile. The ROM stockpile will be used to maintain a consistent plant feed on a daily basis. For cost modelling purposes, it was assumed that 3% of material movement is re-handled to account for an operational stockpile beside the crusher.

16.7.10 Waste Rock Storage Facilities

Three waste rock storage areas have been designed to accommodate the waste rock produced during the mine's operational life. Each is close to its associated pit, to reduce waste haulage distance and cost. The Central Pit waste stockpile is to the west of Pit 1, the North Pit waste stockpile is south of Pit 2, and the South Pit waste stockpile is northwest of Pit 3. Each of the waste rock stockpiles is designed to be dumped bottom-up, to provide for stable geotechnical construction. A summary of the waste stockpile capacities can be found in Table 16-4

Table 16-4: Waste Stockpile Capacities

Dump ID	Dump Name	Associated Pits	Capacity (m^3)	Capacity (Tonnes)
1	Central Pit Waste Stockpile	1	6,328,367	15,820,918
2	North Pits Waste Stockpile	2 and 4	90,803,508	227,008,770
3	South Pit Waste Stockpile	3	44,642,504	111,606,260

All waste rock is considered non-potentially acid generating. No special waste handling measures have been planned at this time. There are minor opportunities for pit backfill, which have not been used at this stage.

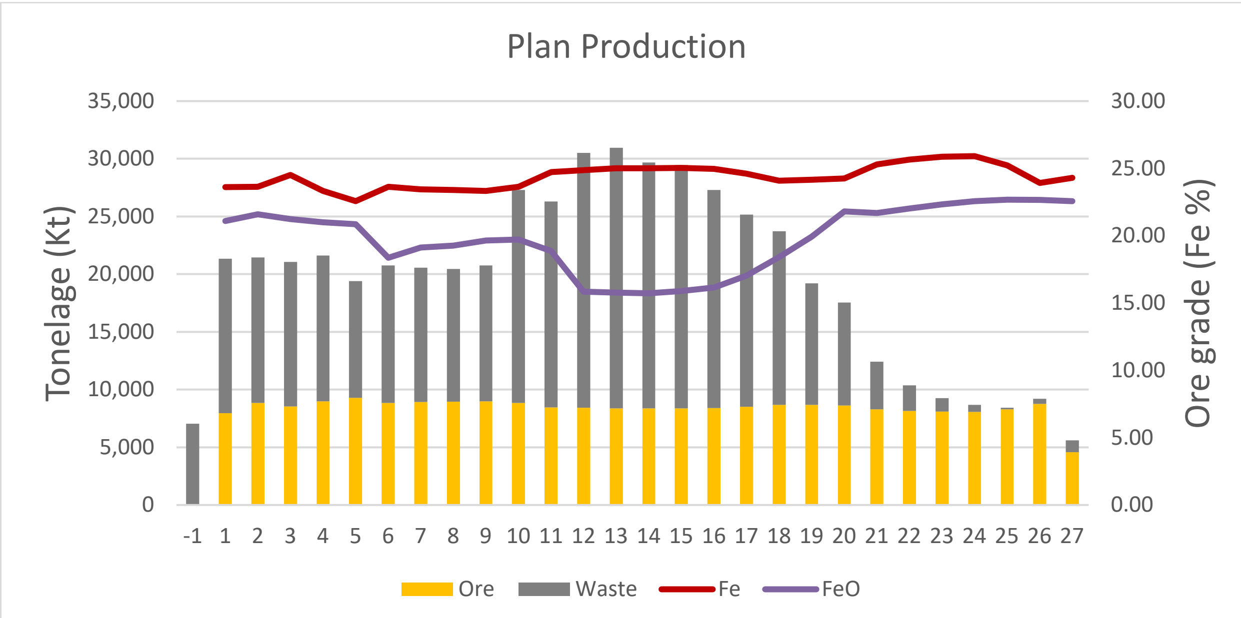
16.8 Production Schedule

The Lac Virot production plan spans 29 years, encompassing a timeline of activities to maximize resource extraction and operational efficiency. This schedule includes one year dedicated to pioneering (topsoil stripping and constructing initial road network), followed by one year of pre-stripping, and 27 years of active mining operations. The figures presented in this section of the report do not include the pioneering phase of the Project.

During the initial nine years of operation, material movement is maintained between 19 and 21 Mt/a. This steady pace supports the ramp-up phase and aligns with the mine's targeted concentrate production without creating unnecessary stockpiles. A significant step change occurs in Year 10, with annual material movement increasing to over 25 Mt/a. This higher throughput continues through Year 17, marking the most intensive period of mining activity.

From Year 18 onward, the operation transitions to a more sustainable phase as the low strip ratios of the deeper benches in Pit 3 and Pit 4 are extracted. This shift allows for a gradual reduction in total material movement while maintaining the planned production targets. The declining material movement in the later years reflects the efficient utilization of the remaining resources, reducing operational intensity as the Project approaches its conclusion. Figure 16-8 shows the annual material movements, along with the feed grade.

Figure 16-8: Material Movement and Grade Summary



Pit 1, being relatively small compared to the other phases, has a mine life of just two years. Its compact design facilitates quick access, ensuring an early and steady feed to the process plant while pre-stripping operations commence on Pit 2. This efficient sequencing minimizes delays in production and ensures a seamless transition between pits.

The pit sequencing is designed to ensure continuous and efficient production, with multiple active pits operating at most points throughout the Project's life. This approach ensures a steady supply to the mill while optimizing equipment utilization within the active pits. By maintaining multiple active mining faces, potential congestion is minimized, leading to improved haulage efficiency and streamlined operations.

Figure 16-9 shows the sequencing of the four pits, and the total material movement from each by year. While Figure 16-10 shows the percentage of feed that each pit is contributing on a period-by-period basis.

Figure 16-9: Total Material Movement, by Pit

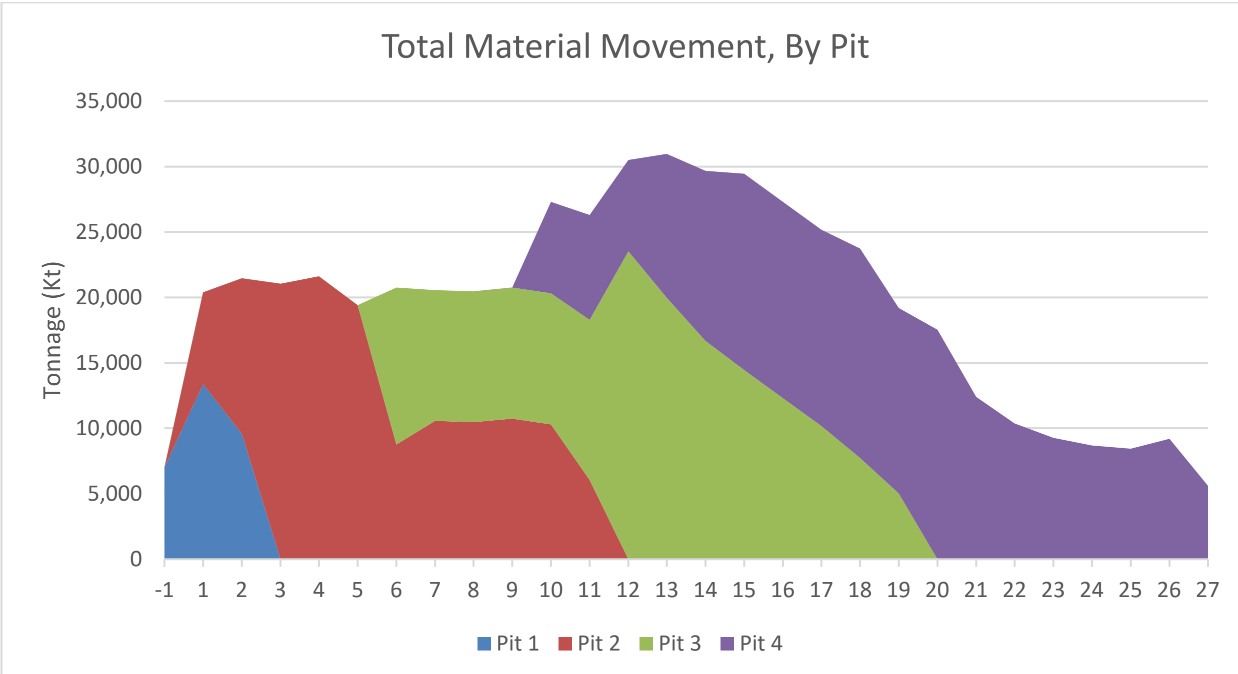


Figure 16-10: Feed, by Pit

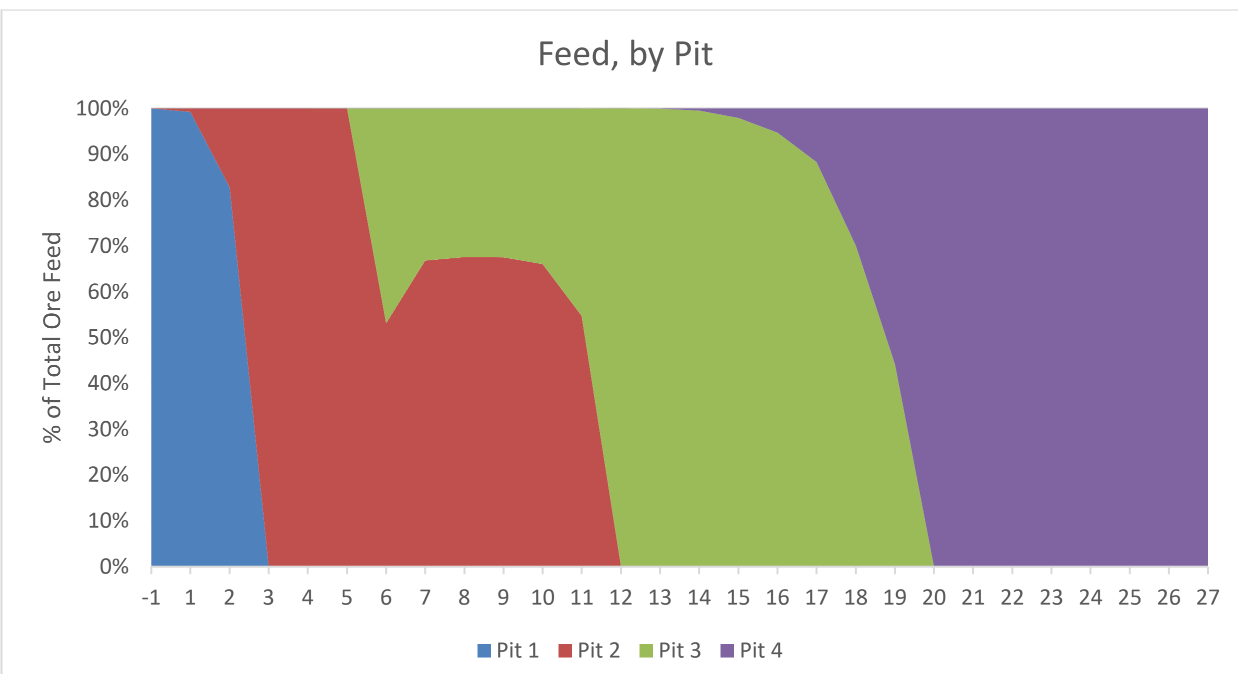
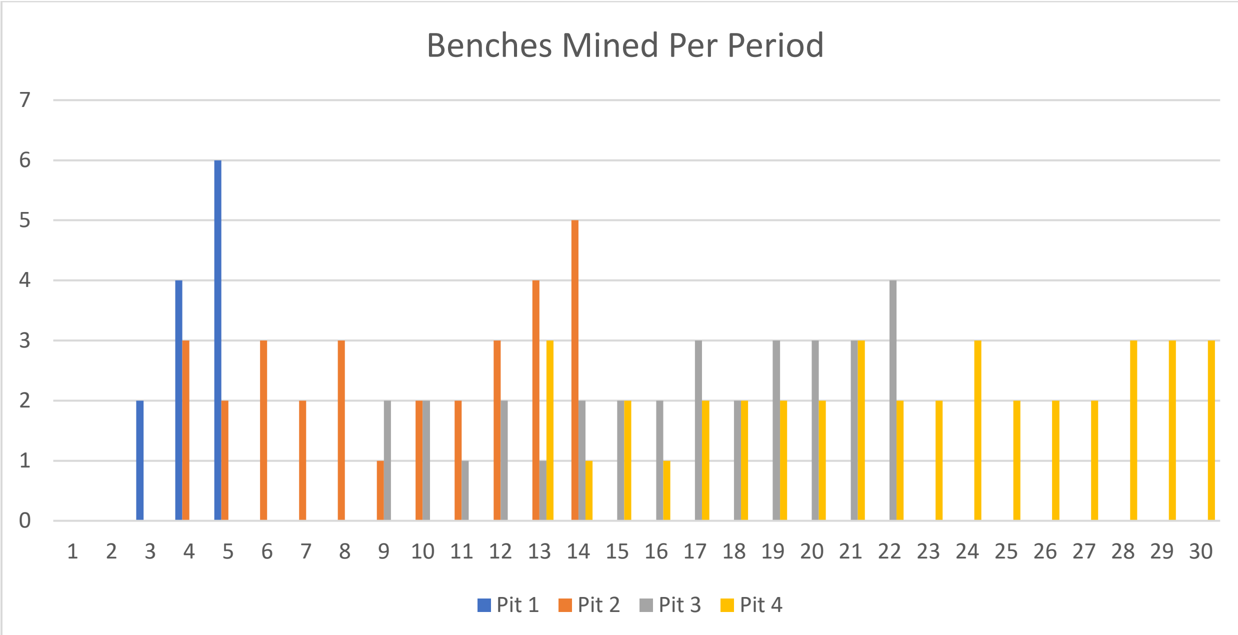


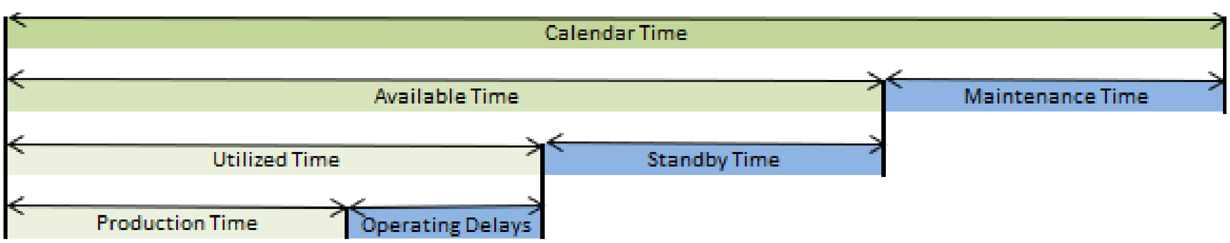
Figure 16-11: Number of Benches Mined by Period



16.9 Mine Operations and Equipment Selection

For the purposes of this study, equipment selection was completed based on class of equipment, rather than identifying specific equipment models from major vendors. These selections are detailed below in the loading, hauling, drilling, and auxiliary equipment sections. For all fleets, a simple time usage model with three key performance indicators was used. Shown in Figure 16-12, the time usage model uses physical availability, utilization, and efficiency to determine each fleets' productive time, as a ratio of total calendar time. The Lac Virot production plan is based on a 355-day operating calendar. This calendar accounts for ten shutdown days for weather events.

Figure 16-12: Time Usage Model



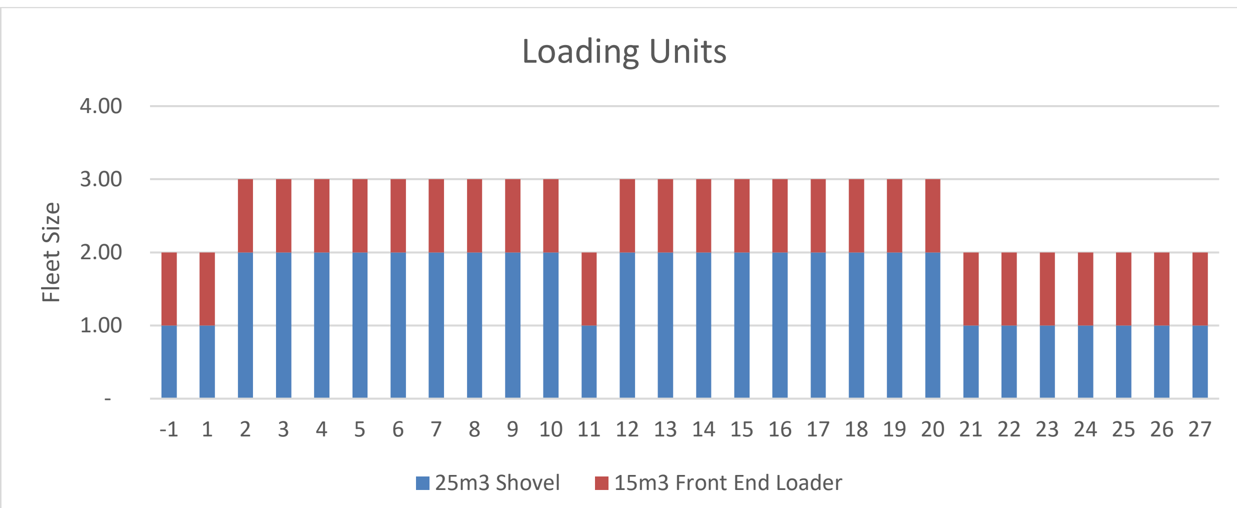
16.9.1 Loading Equipment

At peak operation, the Lac Virot primary mining fleet will include two 34 m^3 hydraulic shovels and one 15 m front-end loader to provide more mobile loading support. Loading-unit requirements over the life-of-mine (LOM) are shown in Figure 16-13. The loading units will support a fleet of 220-tonne haul trucks, with estimated loading times of 2.25 minutes for ore, and 3.16 minutes for waste. This equipment match results in a maximum operating capacity of 3,463 tonnes per operating hour, or 19.35 M t/a. The loading fleet requirements are based on the production plan as outlined in Section 16.3, and the availability and utilization assumptions shown in Table 16-5. Red Paramount is confident that the mining method and mine design criteria—such as bench heights, road widths, and pit slopes—are well-suited for extracting the orebody via the chosen equipment classes.

Table 16-5: Shovel Time Usage Parameters—Major Equipment

Equipment Availability	Unit	Total
Hydraulic Shovel		
Physical Availability	%	84
Utilization	%	98
Front End Loader		
Physical Availability	%	83
Utilization	%	84

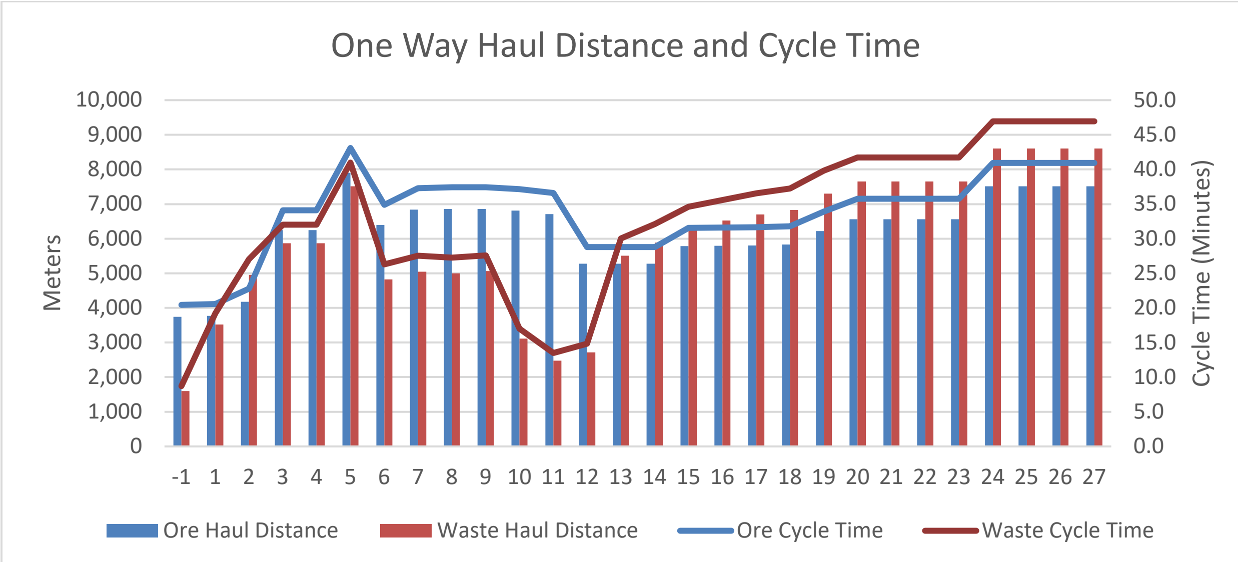
Figure 16-13: Loading Unit Requirements



16.9.2 Hauling Equipment

Material at the Lac Virot property will be transported by a fleet of up to 15 220-tonne-class haul trucks. Truck productivity estimates are based on measurements of haul distances from pit bench centroids to dump lift centroids and crusher locations and assumes an average haul speed of 22 km/h. Average one-way haul distances over the first 3 years of the mine life are just 3.85 km, which increases to an average of 5.9 km for the remainder of the mine life. Cycle times vary from as low as 8.7 minutes for waste in Year −1, to 46.9 minutes for waste in the final years of operation. Figure 16-14 shows the haul distance and cycle time profiles for the life of operation.

Figure 16-14: One Way Haulage Distance and Cycle Times

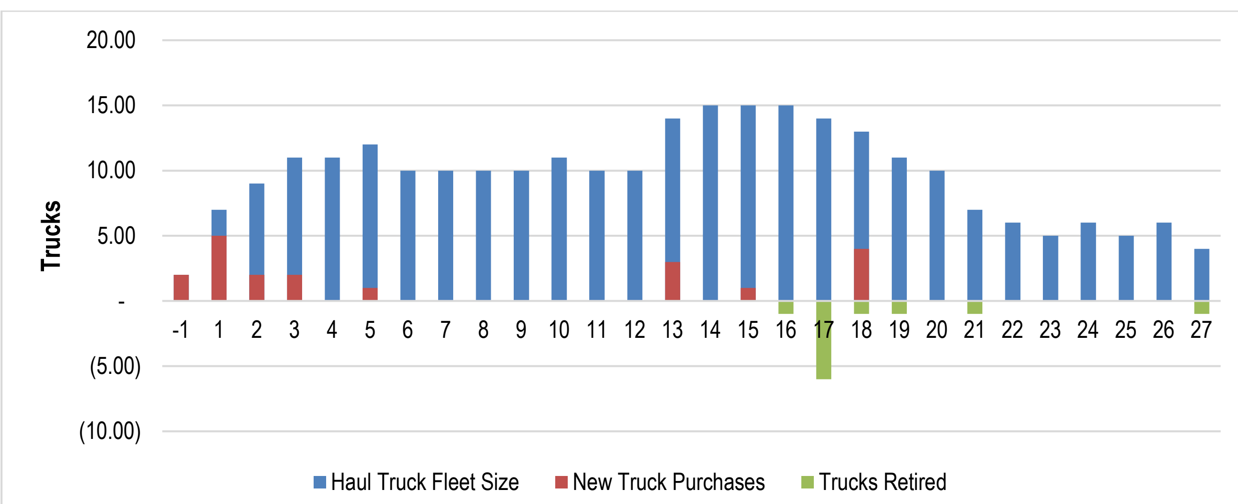


Truck requirements over the LOM are shown in Figure 16-15. These fleet sizes are based on the production plan as outlined in Section 16.3, the cycle times shown above, and the availability and utilization assumptions shown in Table 16-6.

Table 16-6: Truck Time Usage Parameters—Major Equipment

Equipment Availability	Unit	Total
Truck		
Physical Availability	%	85
Utilization	%	82

Figure 16-15: Hauling Unit Requirements



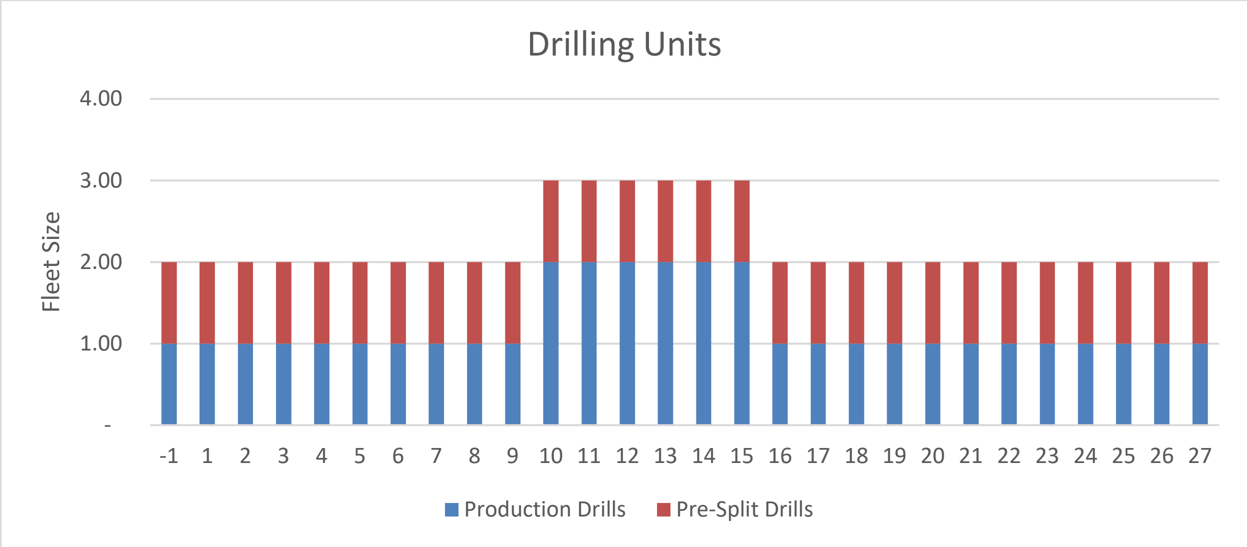
16.9.3 Drilling Equipment

Drilling on the Lac Virot property will be conducted by a maximum of two production drill rigs, and one pre-split drill rig for geotechnical wall control. The fleet profile over the mine life is shown in Figure 16-16, and the time usage parameters are shown in Table 16-7. The production drills are assumed to have a penetration rate of 40 m per operating hour.

Table 16-7: Drill Time Usage Parameters—Major Equipment

Equipment Availability	Unit	Total
Diesel Production Drill		
Physical Availability	%	85%
Utilization	%	93%
Presplit Drill		
Physical Availability	%	86%
Utilization	%	90%

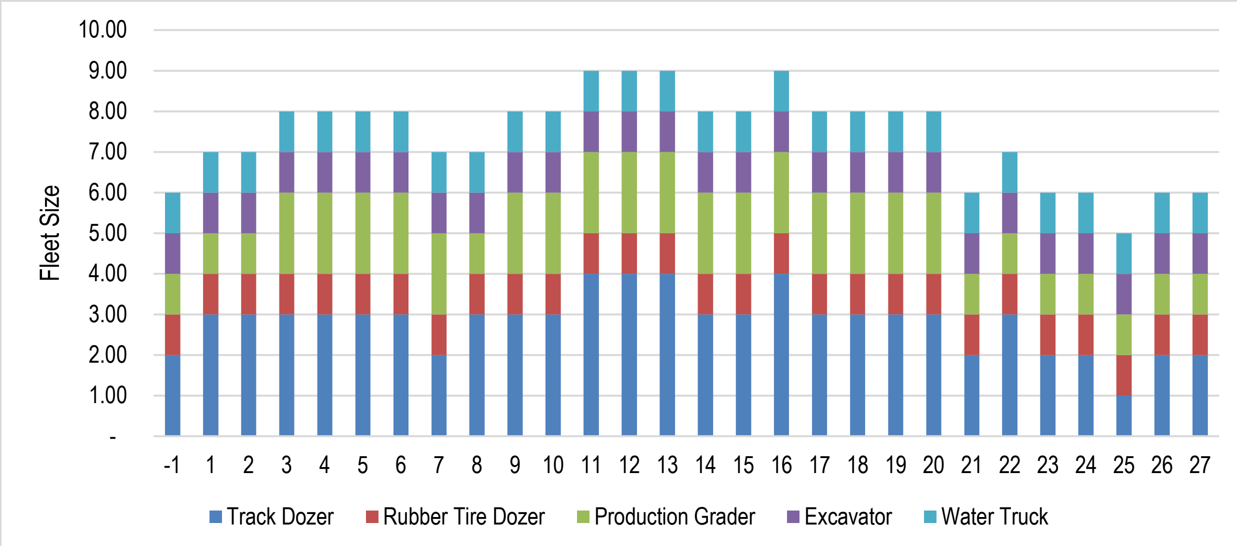
Figure 16-16: Drilling Unit Requirements



16.9.4 Auxiliary Equipment

The mine will be supported by a fleet of conventional auxiliary mining equipment. This will include, but not be limited to, track dozers, rubber tire dozers, production graders, excavators, and water trucks. The projected fleet profile for these units is shown in Figure 16-17.

Figure 16-17: Ancillary Equipment Requirements



16.9.5 Blasting

The use of ammonium nitrate and fuel oil (ANFO) is unlikely, as the presence of water in drill holes is likely. Therefore, all production blasting is assumed to be completed with emulsion and electronic detonation. This will allow for the utmost understanding and control over vibration, material movement, and dilution. Future studies should investigate the best bulk explosive product to suit the needs of the operation. The production blasting parameters are outlined in Table 16-8. Pre-split spacing is assumed at 1.8 m with a pre-packaged, high-velocity explosive product.

Table 16-8: Blasting Assumptions

		Materials	
Blasting Parameters	Unit	Feed	Waste
Blast Hole Depth	m/hole	11.5	11.5
Blast Hole Burden	m	7	8
Blast Hole Spacing	m	7	8
Blast Hole Volume	m^3/m	0.049	0.049
Blast Hole Tonnage	t/hole	1,308	1,728
Collar	m/hole	5.5	5.5
Explosive SG	t/m^3	1.30	0.80
Blasting Agent	kg/m	64.2	39.5
	kg/hole	385.4	237.2
Powder Factor	kg/t	0.295	0.137

16.9.6 Mine Dewatering

The pit water management system will include the following components:

- Pit dewatering system: a dedicated dewatering system will be installed to handle groundwater inflows and surface-water runoff within the pit areas. This system is essential for maintaining a dry environment to facilitate drilling, blasting, and excavating operations.
- Diversion infrastructure: flows from surrounding areas will be diverted around the pit using engineered channels and collection systems to prevent additional water ingress into the mining area.
- Groundwater seepage collection: groundwater seepage will be captured through strategically placed pumps and drainage infrastructure, ensuring minimal impact on surrounding water tables.
- Water treatment facilities: collected water will undergo rigorous treatment processes to meet or exceed federal and provincial water quality standards before discharge into the environment.
- Compensatory discharge to watersheds: extracted groundwater will be discharged into nearby watersheds to offset any potential hydrological imbalances caused by dewatering activities.
- Continuous Monitoring: Groundwater levels, quality, and flow rates will be continuously monitored to ensure the effectiveness of the pit-water management system and to identify any necessary adjustments.

Potential effects on water resources will be avoided or reduced through implementation of the following measures:

- Runoff controls: surface runoff will be managed using engineered collection ditches and drainage infrastructure to direct water flows appropriately and prevent erosion.
- Sedimentation and settling ponds: sediment control measures will include the design and establishment of sedimentation and settling ponds to capture suspended solids and improve water quality prior to discharge.
- Water treatment and monitoring: collected water from dewatering and runoff systems will undergo treatment to meet or exceed applicable federal and provincial water quality standards before discharge. Continuous water quality monitoring will be conducted to ensure compliance and to promptly address any deviations.

Extracted groundwater will be discharged into nearby watersheds after treatment to compensate for projected losses and to maintain hydrological balance. Additionally, groundwater levels and quality will be continuously monitored to ensure sustainable management of the resource. If water levels in lakes surrounding the perimeter of the open pit are observed to decline during operations, targeted mitigation measures will be implemented.

With the implementation of the identified mitigation measures, the proposed Project is not likely to result in significant, adverse environmental effects on water resources during any phase of the Project. The proactive measures and monitoring programs will ensure that water resources are protected, supporting both environmental sustainability and regulatory compliance.

17 RECOVERY METHODS

The process design for the Lac Virot Iron Ore Project has been developed based on metallurgical testwork results that provide the foundation for a processing plant capable of recovering high-grade iron concentrate from ROM (detailed in Section 13). The proposed plant is designed to handle an annual feed capacity of 9.0 Mt/a.

The key strategy involves rejecting non-magnetic material at the coarsest possible size, to optimize downstream processing. Initial test results indicate that 30%–50% of the mass can be rejected in the first stage of magnetic separation, significantly reducing energy consumption and operating costs. The overall objective is to produce DR-grade iron concentrate with high iron content and minimal impurities.

The process design criteria were developed based on interpretations of the metallurgical testwork results described in Section 13. Assumed values based on Sedgman experience have been used where testwork results were not present. It is expected that the process plant would operate 24 h/d, 365 d/a. The summary design criteria are given in Table 17-1.

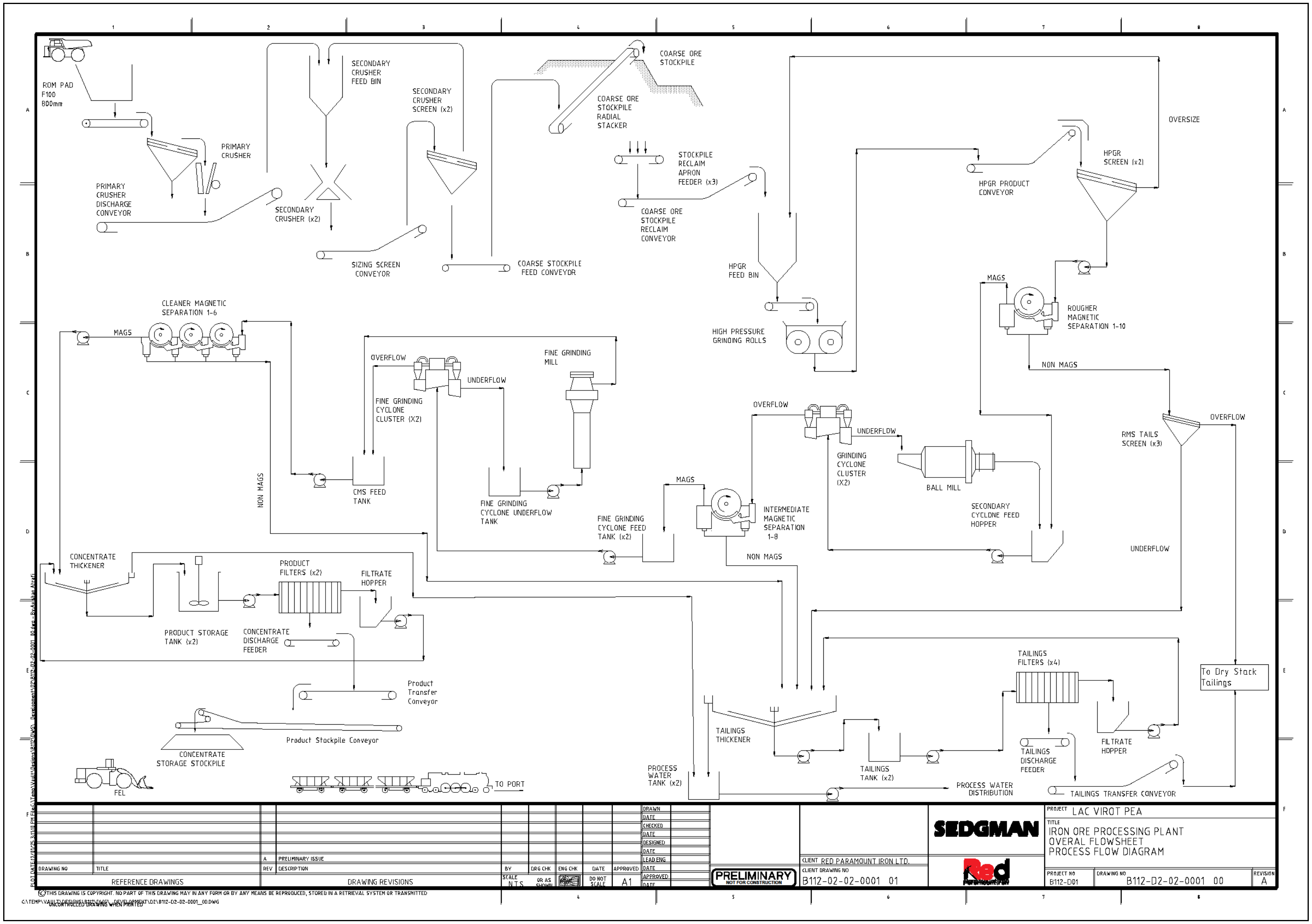
Table 17-1: Summary Design Criteria

Parameter	Unit	Value
Operating Schedule		
Annual Operating Days	d/a	365
Equipment utilization—Crusher	%	68.5
Equipment utilization—Concentrator	%	90.3
Mill Feed		
Mill Feed Annual Capacity	Mt/a	9.0
Mill Feed Rate	t/h	1139
Mill Feed Fe Grade (LOM Average)	%	25.8–30.5
Mill Feed Magnetic Fe-Sat (LOM Average)	%	22.1–24.4
Moisture	%	2
SG	kg/L	3.42
Iron Concentrate		
Concentrate Annual Production (LOM Average)	Mt/a	2.5
Concentrate Production Rate	t/h	417
Concentrate Weight Recovery (LOM Average)	%	30
Concentrate Fe Recovery	%	78.6
Concentrate Fe Grade	%	67.5
Concentrate SiO_2 Grade	%	<3.7

17.1 Process Flowsheet

The Lac Virot Iron Ore Project process flowsheet (Figure 17-1) is designed for staged recovery of magnetite at varying size distributions, with the aim of rejecting non-magnetic material at the coarsest possible size.

Figure 17-1: Simplified Process Flowsheet



17.2 Process Description

The crushing circuit reduces ROM to a particle size suitable for downstream processing. ROM material is first processed through a primary jaw crusher near the Mid Pit, then transported by overland conveyor to the process plant pad and into a crushed feed bin. From the feed bin the material goes through secondary crushing using cone crushers, then reports to a coarse stockpile with a 12 h live capacity. Reclaimed material from the coarse stockpile goes through HPGR operating in closed circuit with a wet screen, to achieve a product size of P_{80} 3.4 mm. The crushing circuit is expected to operate with a 68.5% utilization equal to 6,000 h/a. The process plant is expected to operate with a 90.3% utilization rate.

HPGR-crushed product will undergo the rougher stage of magnetic separation, in a circuit consisting of three stages (rougher, intermediate, and cleaner), with staged size reduction to maximize liberation of magnetic minerals. The rougher magnetic separation rejects approximately 30% of non-magnetic material, and upgrades the iron grade to approximately 40%, while operating at 1150 gauss.

Rougher magnetic concentrate will then be ground in a ball mill operated in closed circuit with classifying cyclones resulting in an overflow particle size of P_{80} 150 µm. The ground material goes through an intermediate magnetic separation (IMS) circuit and upgrades to approximately 50%–60% iron in the IMS product, operating at 1150 gauss. The IMS product will undergo further reduction to P_{80} 40 µm in a regrind vertical mill, to improve liberation of the magnetic particles. The cleaner magnetic separation produces a final concentrate with >69% Fe, <4% SiO_2 + Al_2O_3 impurities, and <0.05% S at a magnetic intensity of 850 gauss. The final concentrate will be thickened and filtered to achieve less than 9% moisture prior to rail transportation of the saleable product.

Reverse flotation and hydroseparation techniques for reducing SiO_2 content were assessed in the testwork outlined in Section 13. While the testwork results demonstrated potential for effectively lowering silica levels with higher recovery rates, these processes have not been integrated into the current phase of project design. The flotation conditions tested showed promising outcomes, indicating that these methods could significantly enhance the product's quality and recovery efficiency.

Rougher, intermediate, and cleaner magnetic separation tailings (non-magnetics) are dewatered for deposition as filtered tailings. The RMS tailings are coarse and will be fed to a tailings dewatering screen where the oversize will be conveyed to the filtered-tailings storage facility, and undersize will report to the tailings thickener. The intermediate and cleaner magnetic separation tailings will also report to the tailings thickener. The thickener product will be filtered and conveyed to the filtered-tailings storage facility.

17.3 Process Design Criteria

For the current PEA, the process design basis is based on the mine plan presented in Section 16. Table 17-1 presents key process plant design criteria.

Table 17-2: Key Plant Process Design Criteria

Parameter	Unit	Value
Crushing Circuit		
Crushing Rate	t/h	1,500
Primary Crusher	-	Jaw—Open Circuit (C200 or equivalent)
Secondary Crusher	-	Cone—Closed Circuit w/screen (HP900 or equivalent x2)
Coarse Stockpile Capacity	h	12
Tertiary Crusher	-	HPGR—Closed circuit w/screen (PM8—24/17 or equivalent)
Crushed product size	P_{80} mm	3.4
Rougher Magnetic Separation		
Feed Rate	t/h	1,139
Field Intensity	Gauss	1,150
Type / Size / Number	-	LIMS / Ø 1.219 x 3.048 / 10x
Primary Grinding Circuit		
Bond Ball Mill Work Index	kWh/t	7.6
Milling Rate	t/h	786
Grinding Product Size	P_{80} µm	150
Size / Power		Ø 5.8 m x 8.7 m ELG / 5.5 MW
Intermediate Magnetic Separation		
Feed Rate	t/h	786
Field Intensity	Gauss	1.150
Type / Size / Number	-	LIMS / Ø 1.219 x 3.048 / 8x
Number of Stages	#	2
Regrind Circuit		
Specific Energy	kWh/t	9.2
Regrind Product Size	P_{80} µm	40
Feed Rate	t/h	542
Type	-	VRM mill 50000–60000
Cleaner Magnetic Separation		
Feed Rate	t/h	542
Field Intensity	Gauss	850
Type / Size / Number	-	LIMS / Ø 1,219 x 3,048 / 6x
Number of Stages	#	3
Concentrate Dewatering		
Feed Rate	t/h	417
Settling Rate	t/h.m²	1
Thickener Diameter	m	Ø 23
Thickener Underflow Density	%	~ 70
Filter Utilization	%	83
Filtration Rate	t/m².h	0.477
Cake Moisture Content	(% w/w)	9

17.4 Tailings Dewatering Design Criteria

The tailings dewatering system is designed to produce dry stack tailings with a moisture content of 15% weight by weight (w/w). Table 17-3 outlines the key process plant design criteria and parameters for the tailings dewatering system.

Table 17-3: Tailings Dewatering Design Criteria

Parameter	Unit	Value
Coarse Tailings Dewatering Screen		
Feed Rate	t/h	353
Tailings Thickener		
Feed Rate	t/h	422
Feed Size	µm	40
Thickener Diameter	m	Ø 40 m
Settling Rate	t/h.m²	1.26
Underflow Density	%	68
Tailings Filter		
Filtering Utilization	%	83
Feed Rate	t/h	422
Filtration Rate	t/m².h	0.24
Filter Cycle Time	min	9.5
Cake Moisture Content	% w/w	15

17.5 Energy, Water, and Process Consumables

Power is received to the main substation at 46 kV, with step down to 13.8 kV for reticulation around the site and further stepped down to 4160 V and 600 V feed to motors. The total installed power for the processing facility will be approximately 27 MW.

The process facility will use reclaimed water from the filtered tailings and concentrate with make-up raw water. Inside the process plant, water will be available as process water, potable water, and gland water.

Consumables will include:

- Crusher liners (primary and secondary)
- HPGR roll lines
- Ball mill media and liners
- Regrind mill media and liners.
- Flocculant.

18 PROJECT INFRASTRUCTURE

This section outlines the key infrastructure elements required to support the development and operation of the Lac Virot Project. The proposed infrastructure is designed to optimize capital and operating cost, sustainability, and operational logistics, underpinned by the Project's phased development strategy. A site layout is provided in Figure 18-1.

No geotechnical data are available for the Lac Virot site, as no testing or investigative work has been conducted to date. The suitability of infrastructure locations must be verified through a comprehensive condemnation drill program to confirm the presence of barren areas.

Given the extent of project infrastructure development required across the site, significant groundwork will be necessary. Observations from Red Paramount team site visits indicate that the area has minimal overburden, suggesting that heavy foundations can likely be placed directly on bedrock.

To optimize infrastructure placement and ensure long-term stability, a detailed geotechnical drilling program should be carried out in the next study phase. For this study, it has been assumed that no complex foundation designs will be needed and that all heavy loads will be supported by solid bedrock.

18.1 Mining Operation

The Lac Virot Project involves mining activities in three primary open pits, overburden and waste rock dumps; surface-water management features (ditches and settling basins), and water treatment facilities; roads, bridges, and accesses for mine vehicles and light traffic; mine support infrastructure including mine equipment maintenance shop, truck wash station, fuel loading, vehicle fueling system, and explosives magazine. The Lac Virot production plan spans 29 years, with one year for pioneering, one year for pre-stripping, and 27 years of active mining. Pit 1 is mined during the early years, followed by Pit 2, which supports the ramp-up phase. The deeper benches of Pits 3 and 4 are mined from Year 10 onward.

18.2 Waste Rock Management and Waste Dump Conceptual Design

The proposed disposal sites for waste rock and overburden have been identified in the site plan for this PEA. It is assumed that these locations are geologically barren; however, confirmation through a condemnation drill program is required. The selected sites were chosen for their proximity to the open pit, which reduces haulage distances and associated costs.

Design considerations must prioritize effective water management around the waste dumps. This includes implementing perimeter drainage systems and constructing settling basins to ensure discharge water meets regulatory quality standards. Proper erosion control and stability measures should also be integrated into the waste dump design to minimize environmental impact.

18.3 Access Road

The 4.5 km access road (Red Paramount to provide info) will branch off existing Highway 500, which runs between Labrador City and the Québec and Newfoundland and Labrador border and terminates at the plant site.

18.4 Concentrate Train Rail Spur

A dedicated rail loop will be constructed to connect the Project site to the Bloom Lake Railway, Red. This connection will integrate with the existing railway system between Wabush Mines and the QNS&L.

18.5 Filtered-Tailings Storage Facility

Red Paramount proposes to use a combination of a purpose-built surface tailings facility along with in-pit tailings disposal, to provide containment of all tailings to be produced over the operating life of the mine. A purpose-built starter filter tailings storage facility (FTSF) will be constructed adjacent to the Mid Pit to contain the tailings produced from material mined from the Mid Pit. Following completion of mining, the Mid Pit will be converted for tailings disposal. Subsequent to filling of the Central Pit, the North Pit will be used for tailings disposal.

The starter facility will consist of a tailings stack with a perimeter earthfill embankment for collecting runoff of precipitation falling within the footprint of the FTSF (Figure 18-2). Where topography permits, natural relief will provide containment around the perimeter of the facility, and direct runoff from the surface of the facility to runoff-collection sumps to be located around the perimeter. The stack will be graded to promote runoff from the tailings surface.

Tailings have not been tested to determine if they will be potentially acid generating (PAG); however, metallurgical testing showed no sulphide minerals and sulphur grades of 0.01% to 0.02% S. Additionally other sites in the general area have not found their tailings to be acid generating. As a result, at this stage, it is expected that the facility will not require a full liner system. Perimeter seepage and runoff collection ditches will be provided to collect any seepage and runoff from the facility.

The surface FTSF will contain approximately 15.3 Mm^3 of filtered tailings. Central Pit will contain approximately 13 Mm^3 of tailings, and the Phase 2 expansion of the surface FTSF will contain approximately 59.3 Mm^3.

The perimeter berms for the surface FTSF will have an average height of approximately 5 m, and will contain runoff from the facility surface. The maximum FTSF stack height will be approximately 50 m. The perimeter berms will be built with non-PAG waste material from the mid-Pit pre-mining activities. Contact water will be collected in the facility and either returned to the process plant for reuse in milling or treated and discharged to the environment. Surface water diversion channels (SWDC) will be constructed to divert runoff around the FTSF. Closure of the FTSF will include placing a cover of overburden soils over the filtered tailings. The overburden will be salvaged from within the footprint of the FTSF during initial construction.

18.6 Water Management

Water management infrastructure includes dykes and channels and box culverts for crossings to direct surface water away from mine and process operation while maintaining interconnection of the existing water bodies features. Water management includes water treatment facilities, including settlement ponds

The water management system will include the following components:

- Pit dewatering system: a dedicated dewatering system will be installed to handle groundwater inflows and surface-water runoff within the pit areas. This system is essential for maintaining a dry environment to facilitate drilling, blasting, and excavating operations.
- Diversion infrastructure: flows from surrounding areas will be diverted around the pit using engineered channels and collection systems to prevent additional water ingress into the mining area.
- Groundwater seepage collection: groundwater seepage will be captured through strategically placed pumps and drainage infrastructure, ensuring minimal impact on surrounding water tables.
- Water treatment facilities: collected water will undergo treatment processes to meet or exceed federal and provincial water quality standards before discharge into the environment.

18.7 Wastewater Treatment Systems

Wastewater or sewage generated on-site will be treated at a sewage treatment facility. Treated effluent generated at the sewage treatment plant will be compliant with applicable regulations. All potable water that is generated and consumed on-site for domestic use is expected to report to the sewage treatment facility for treatment prior to being discharged to the environment.

Figure 18-1: Overall Site Layout

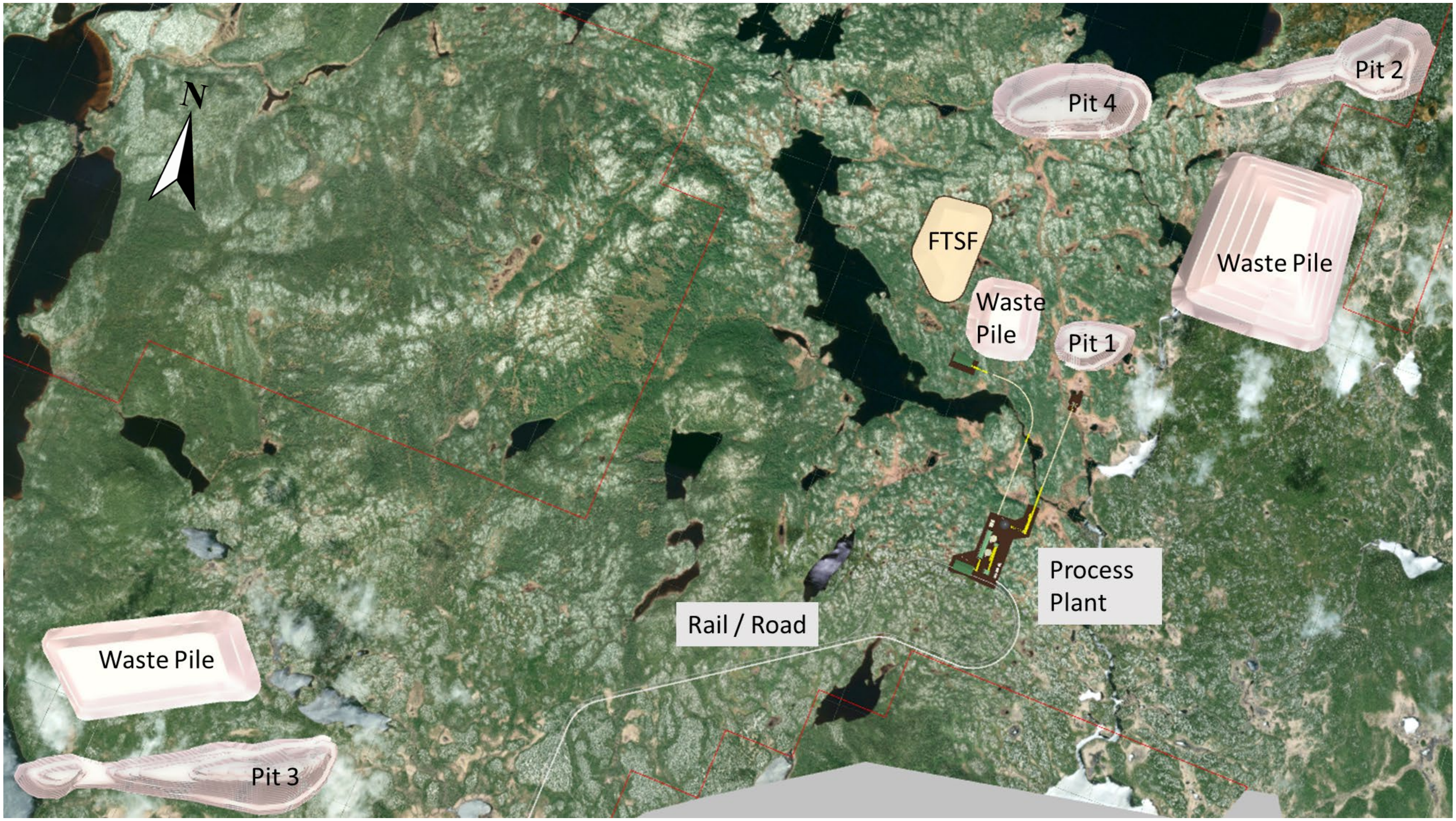
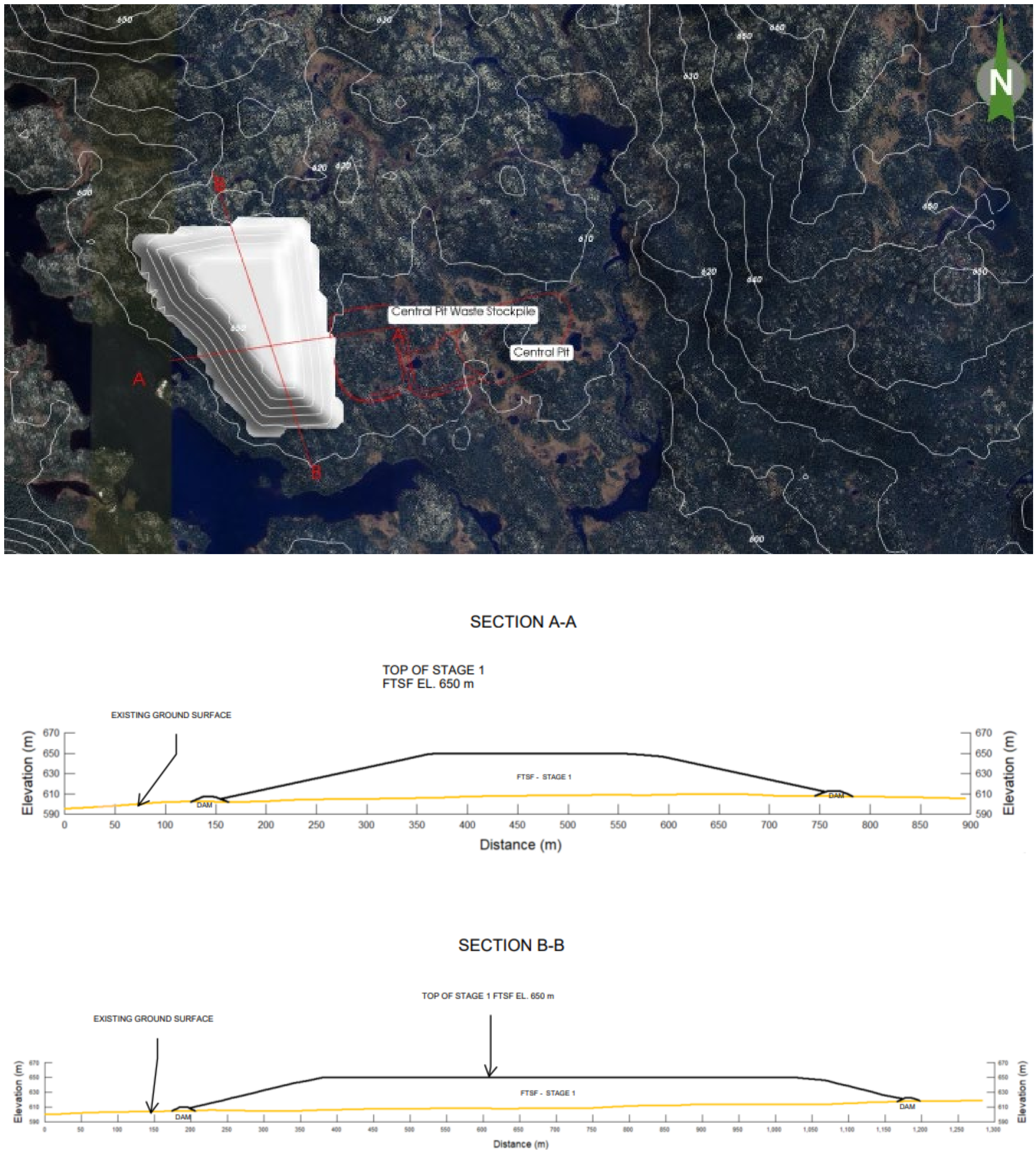


Figure 18-2: FTSF Starter Facility



18.8 Electrical Power

To support the operations at the Lac Virot mining project, several power supply options are under consideration, each with different advantages in terms of infrastructure, reliability, and sustainability.

The preferred approach will prioritize long-term operational efficiency, environmental responsibility, and economic feasibility.

18.8.1 Option 1: Connection to the Labrador–Island Transmission Link (Preferred Option)

The most sustainable and reliable option involves connecting the Project to the Labrador–Island Transmission Link (LIL), a 1,100 km high-voltage direct-current transmission line delivering renewable energy from Muskrat Falls in Labrador to Newfoundland. The LIL, officially commissioned in 2023, strengthens the province's power grid and provides access to clean, hydroelectric energy.

Under this plan, Nalcor Energy (Nalcor) would supply power from a newly planned 315 kV switching station west of Wabush Lake and north of the QNS&L rail line. Nalcor would also construct, own, and operate a 14 km-long, 315 kV wood-pole transmission line extending from the switching station to the proposed Lac Virot main substation (315–34.5 kV). Red Paramount would build and manage the substation as part of project infrastructure.

This option ensures long-term power stability, significantly reduces greenhouse gas emissions by using renewable energy, and minimizes reliance on fossil fuels. It also aligns with sustainability commitments and regulatory expectations for low-carbon operations.

18.8.2 Option 2: Connection to Existing 46 kV Power Line

An alternative approach involves Nalcor supplying power from the existing electrical transmission line running between Labrador and Fermont, Québec. This would require constructing and operating a new 46 kV distribution line to connect the site.

While this option would provide a quicker and more cost-effective connection compared to building a new high-voltage line, it has limitations in terms of capacity and future scalability. The lower voltage supply may not be as efficient for long-term expansion needs, but it remains a viable option if the 315 kV connection proves impractical.

18.9 Administration Support Buildings

The administration and dry building will be modular, supported on concrete spread footings, and complete with furniture and equipment. The administration building includes working space and offices for engineering, technical, surveying, and administration personnel, as well as offices for the general manager, mine manager, plant superintendent, mine operations superintendent, maintenance superintendent, and mine supervisors. In addition, this building will house a first aid safety area, control station, kitchen, and lunchroom facilities.

A small, modular security gatehouse, at the mine entrance will be provided. A storage warehouse will be a pre-engineered light steel-frame structure with a fabric cover, supported on precast concrete lock blocks on a prepared gravel surface.

18.10 Assay Laboratory

The assay laboratory will be a modular building situated adjacent to the administration building, close to the process plant building. All laboratory equipment will be housed there for the daily operational process control, including metallurgical and geological requirements.

18.11 Fuel Storage

Diesel fuel, the primary Project fuel, will be supplied in mobile 75,000-litre tanks and stored in a concrete bunded fuel storage area at the plant site. The anticipated mining fleet diesel consumption was calculated to be 16 ML per year. The area will store four, mobile double-walled fuel storage tanks equipped with prepackaged fuel-unloading modules. These tanks will also supply fuel for the plant-site mobile equipment. Fuel will be trucked to storage tanks for other facilities, such as emergency generators and incinerator.

18.12 Solid Waste Disposal

No provision has been made for an on-site landfill. Inert solid waste will be collected and transported off-site to the nearest landfill. Hazardous waste will also be collected and transported off site for disposal. An incinerator will be used for non-hazardous, combustible waste materials and will be sited close to the administration building, with its own kitchen and lunchroom facilities

19 MARKET STUDIES AND CONTRACTS

The steel industry is foundational to modern society but remains one of the largest industrial contributors to carbon emissions, accounting for approximately 8% of global emissions (the World Steel Association, 2024) . Without significant changes, this share is projected to rise to 12% of global CO_2 emissions by 2035, according to MineSpans data. This underscores the urgent need to decarbonize the industry. A pivotal pathway to greener steel production is reducing reliance on coal-based processes, such as the blast furnace and basic oxygen furnace (BF/BOF) method. A more sustainable alternative is direct reduced iron and electric arc furnace (DRI/EAF), which offers significantly lower carbon emissions. BF/BOF emits approximately 2.2 t/CO_2 per tonne of steel, whereas the DRI/EAF route, when powered by hydrogen, reduces emissions to as low as 0.3–1 t/CO_2 per tonne—a reduction of up to seven times (Wood Mackenzie, 2023).

Wood Mackenzie projects that the share of EAF steelmaking will rise from 28% today to 38% by 2033. This transition is being bolstered by substantial government financial support from Canada, the USA, France, the Netherlands, Japan, and Germany, aimed at reducing domestic emissions. However, there are quality considerations in EAF steelmaking, as the BF/BOF process is efficient at processing a wide range of iron ore grades, while the EAF process is more sensitive to impurities. For optimal performance, EAF combined with a DRI shaft requires high-purity iron ore inputs, with iron content exceeding 67%, and gangue elements such as SiO_2 and Al_2O_3 kept below 2.5%. Impurities not only reduce production yield but also increase electricity consumption and slag volume (Wood Mackenzie, 2023).

The demand for DR-grade pellet feed-material is projected to surge, driven by the shift to DRI/EAF steelmaking. CRU estimates that demand for DR-grade pellet feed will reach 310 Mt by 2050. The Middle East is a key driver of this demand, with favorable government policies and abundant natural gas resources incentivizing DRI production. Europe is also accelerating its adoption of DRI/EAF steelmaking due to government mandates aimed at reducing emissions (Champion Iron, 2024).

The European Union's Carbon Border Adjustment Mechanism (CBAM), set to fully apply by 2026, imposes financial penalties on carbon-intensive imports, including steel. This measure encourages a rapid shift to greener steel production methods and further drives demand for DR-grade iron ore. CBAM incentivizes EU steelmakers to adopt DRI/EAF technologies, as these processes emit significantly less carbon compared to BF/BOF. This policy is expected to double Europe's demand for DR-grade pellets, rising from 25 Mt in 2023 to over 50 Mt by 2030, driven by a transition to green steelmaking. The use of hydrogen in DRI, supported by the EU's ambitious decarbonization goals, will further intensify this demand (Agora Industry, 2023).

Despite this growing demand, significant shortfalls in DR-grade pellet feed supply are anticipated. Current projections suggest an annual demand of 90–120 Mt by 2030, while supply is estimated to be only 70–80 Mt, leading to a gap of 10–40 Mt annually. This gap arises from limited high-quality ore reserves and slow investment in pelletizing infrastructure. The annual production capacity of DR-grade iron ore may reach 70 to 80 Mt by 2030, assuming moderate investment and expansion efforts. However, the shortfall in supply could range between 10 and 40 Mt annually, depending on the pace of infrastructure development, mining expansions, and technological advancements (Agora Industry, 2023).

The limited availability of high-grade ore is a major factor, as DR-grade ore requires high Fe content (67%+) and low impurities like sulfur and phosphorus, making it more challenging to source than blast furnace-grade ore. Infrastructure constraints also pose significant challenges, with investments in mining, beneficiation, and pelletizing facilities lagging behind demand growth. The use of green hydrogen in DRI production further increases demand for DR-grade ore, adding pressure on supply chains (Institute of Energy Economics and Financial Analysis, 2022).

19.1 Iron Ore Price

For the purposes of this Technical Report, we have adopted a price assumption of $120/t for Platts TSI IODEX 65% Fe CFR China, in line with Fastmarkets' long-term forecast. This assumption provides a robust basis for evaluating the economic potential of the Lac Virot Project based on industry long term projection.

19.2 Premium for DR Grade Iron Concentrate

Recent market analyses reflect these trends, showing that DR pellet premiums have ranged from $33 to $55/dmt in 2024. These premiums are driven by rising demand and supply constraints, as the global steel industry increasingly adopts technologies that rely on high-quality iron ore to reduce carbon intensity. The transition to greener production methods emphasizes the importance of DR-grade iron ore, not only for its ability to support low-carbon steelmaking but also for its strategic value in meeting the demands of environmentally conscious markets (fastmarkets, 2024).

Given the current market dynamics, DR-grade iron ore products are expected to maintain significant premiums over standard-grade iron ore. A premium range of $30–$50/dmt above the 65% Fe index is anticipated, reflecting both the high demand and the limited supply of these high-quality materials. These premiums also account for potential fluctuations due to evolving industry standards, regulatory changes, and shifts in global supply and demand (fastmarkets, 2024).

As the steel industry continues its transition toward greener production, DR-grade iron ore remains central to this transformation. The focus on producing high-quality materials using sustainable practices aligns with the broader goals of decarbonizing the steel sector. These factors ensure that DR-grade iron ore will play a pivotal role in supporting the future of sustainable steelmaking and addressing the challenges of climate change.

19.3 Contracts

Currently, there are no formal contracts established for the Project.

20 ENVIRONMENTAL STUDIES, PERMITTING AND SOCIAL OR COMMUNITY IMPACT

Red Paramount is committed to developing the Project within a sustainable development framework that reduces harm to the environment, contributes to local communities, respects human and Indigenous rights, and adheres to openness and transparency in operations. One of the key principles of sustainable development is meaningful engagement with the individuals, communities, groups, and organizations interested in or potentially affected by the Project to build and maintain positive, long-term, and mutually beneficial relationships. Red Paramount will engage with relevant government departments and agencies, Indigenous groups, and stakeholder organizations, including communities, business and industry organizations, fish and wildlife organizations, environmental non-governmental organizations and individuals. The objectives of the engagement and consultation efforts are to:

- Provide project information and updates on a timely and continuing basis in a manner which is inclusive, culturally sensitive, and appropriate to the circumstances of Indigenous groups and stakeholders.
- Engage Indigenous groups and stakeholders in respectful and meaningful dialogue throughout the environmental assessment process and over the life of the Project.
- Identify, document, and respond to issues or concerns by Indigenous groups and stakeholders throughout the environmental assessment process and over the life of the Project.
- Integrate feedback from Indigenous groups, communities and stakeholders into project planning and execution, the assessment of effects and the implementation of mitigation
- Demonstrate how issues and concerns raised during engagement have been addressed.

The Lac Virot Iron Ore Project is in a region with a rich history of mining activities, necessitating a comprehensive understanding of environmental, permitting, and socio-community factors. This section provides an overview of the environmental studies conducted, permitting requirements, and the social and community impacts pertinent to the Project.

Significant environmental investigations have been undertaken on properties surrounding the Lac Virot deposits, primarily as part of permitting and development efforts by neighboring mining companies. Notable assessments include:

- Scully Mine Tailings Impoundment Area Expansion Project Environmental Assessment (2021): Conducted by Tacora Resources Inc., this assessment focused on the proposed expansion of the tailings impoundment area to support ongoing operations at the Scully Mine.
- IOC Labrador City Mining Site Explosives Facility Environmental Assessment (2023): This study evaluated the potential environmental impacts associated with the establishment of an explosives facility near Labrador City.
- Kami Iron Ore Project Environmental Impact Statement (2023): This comprehensive study assessed the environmental implications of developing the Kami Iron Ore Mine and associated rail infrastructure in Labrador.

These mines are within a 10-km radius of the Lac Virot deposits, providing valuable insights into the regional environmental context. The findings from these assessments offer a foundational understanding of the local environmental landscape, which is instrumental in informing the environmental strategies for the Lac Virot Project. These projects have successfully navigated the environmental permitting process and established a framework for sustainable mining operations in the region. The Lac Virot Project will follow a similar path, ensuring compliance with all requirements.

Further, the Lac Virot property has previously been impacted by historical activities including recreation, including the use of snow machines and all-terrain vehicles, as week as cutting grid lines and exploration drilling.

20.1 Jurisdiction, Applicable Laws, and Regulations

Throughout the development of the Lac Virot project, Red Paramount will be subject to a number of federal and provincial acts and regulations. The following is a summary of the potential acts and regulations that may apply to the Project development. The requirements of each will be addressed as part of the environmental impact assessment for the Project.

- Federal *Impact Assessment Act* and related regulations
- Newfoundland and Labrador *Environmental Protection Act* and the Environmental Assessment Regulations
- Federal *Species at Risk Act*
- Newfoundland and Labrador *Endangered Species Act*
- Federal *Fisheries Act*
- Metal and Diamond Mine Effluent Regulations (pursuant to the *Fisheries Act*)
- Federal and Provincial Carbon Emissions Pricing requirements
- Canadian *Navigable Waters Act*
- Newfoundland and Labrador *Water Resources Act*
- Newfoundland and Labrador *Mining Act*
- Newfoundland and Labrador *Historic Resources Act*.

The Newfoundland and Labrador *Environmental Protection Act* mandates that any proposed project with potential significant impacts on the natural, social, or economic environment must undergo a formal Environmental Assessment (EA) process. This process ensures that all environmental considerations are evaluated before a project proceeds. The project proponent is responsible for registering it with the Department of Environment and Conservation Environmental Assessment Division, which administers the process.

20.2 Indigenous Community

The information regarding Indigenous communities relevant to the Lac Virot Project has been compiled from publicly available resources, including First Nations Profiles from the Crown-Indigenous and Northern Affairs Canada website, provincial government sources, and official Indigenous community websites, where available. Additionally, data on local municipalities within the local study area and regional study area were gathered from municipal and provincial government sites.

The following Indigenous communities have been identified in relation to the Lac Virot Project and are considered in this assessment:

20.2.1 Innu Nation

The Innu Nation represents the Mushuau Innu First Nation and Sheshatshiu Innu First Nation. Historically, the Innu people of Labrador were part of the Native Association of Newfoundland and Labrador before forming their own governing body in 1976, initially called the Naskapi Montagnais Innu Association and later renamed Innu Nation in 1990. The Tshash Petapen (New Dawn) Agreement, signed in 2008, addressed key land claim and Impact and Benefit Agreement issues. An Agreement in Principle was signed in 2011 with the Government of Canada and the Province of Newfoundland and Labrador.

20.2.2 Innu Takuaikan Uashat mak Mani-Utenam

The Innu Takuaikan Uashat mak Mani-Utenam (ITUM) near Sept-Îles, Québec, approximately 290 km south of the Lac Virot Project, has historical roots tied to IOC mining operations. Many Innu migrated north in 1954 to work in mining and later formed the Matimekush and Lac John reserves in the Schefferville area. ITUM is governed by an elected Chief and Council serving a three-year term.

20.2.3 La Nation Innu Matimekush-Lac John

La Nation Innu Matimekush-Lac John (NIMLJ) in Schefferville, Québec, approximately 220 km north of the Lac Virot Project, NIMLJ originated from Innu hunting and trapping lands. Community members were moved to Lac John in 1957 and later to Matimekush in 1968. Following the IOC mine closure in 1982, much of the non-Indigenous population left Schefferville.

20.2.4 Naskapi Nation of Kawawachikamach

The Naskapi Nation of Kawawachikamach is near Schefferville, Québec. The Naskapi originally came from Kuujjuaq before migrating to Schefferville in the 1950s. They relocated to Matimekush in 1968, and then to Kawawachikamach in 1978 under the Northeastern Québec Agreement, formally establishing their reserve in the early 1980s.

20.3 Water Bodies

The landscape features several notable water bodies that contribute to the region's natural hydrological network. Additionally, the area is home to numerous smaller lakes, rivers, and streams that support a diverse range of wildlife. These water bodies are integral to the local ecosystem and offer residents and visitors alike a chance to engage with the natural environment of Labrador West.

20.4 Dominant Vegetation Ecotypes

The Lac Virot Project is in an area characterized by a diverse array of vegetation ecotypes shaped by the boreal climate, glacial history, and varied topography. Understanding these ecotypes is crucial for assessing potential environmental impacts and implementing effective mitigation strategies.

The following are the primary vegetation ecotypes identified in the vicinity of the Lac Virot Project

- Black Spruce–Labrador Tea–Feathermoss Forest This ecotype is prevalent in the boreal regions of Labrador, characterized by dense stands of black spruce (*Picea mariana*), with an understory dominated by Labrador tea (*Rhododendron groenlandicum*) and a carpet of feathermosses.
- Black Spruce/Tamarack–Sphagnum Woodland: Found in poorly drained areas, this ecotype features a mix of black spruce and tamarack (*Larix laricina*) trees, with a ground layer dominated by sphagnum mosses.
- Softwood Burn/Regeneration Description: Areas recovering from natural disturbances such as wildfires, characterized by young, regenerating softwood species.
- Hardwood Burn/Regeneration: Similar to softwood regeneration areas but dominated by hardwood species such as birch (*Betula* spp.) and aspen (*Populus* spp.).
- Tamarack/Black Spruce–Feathermoss (Water Track): Linear wetland features where groundwater movement (water tracks) influences vegetation patterns, supporting tamarack and black spruce with a feathermoss understory.
- Mixedwood Forest: Forests containing a mix of coniferous and deciduous tree species, including balsam fir (*Abies balsamea*), white spruce (*Picea glauca*), and paper birch (*Betula papyrifera*).
- Black Spruce–Lichen Forest: Open-canopy forests where black spruce is dominant, and the forest floor is covered with various lichen species.
- Non-Patterned Shrub Fen and Patterned Shrub Fen: Wetland areas dominated by shrub species and sedges, with patterned fens exhibiting distinct surface patterns due to water flow and peat accumulation.
- Hardwood Forest: Deciduous forests primarily composed of species such as paper birch and trembling aspen (*Populus tremuloides*).
- Alpine Heath: High-elevation areas with harsh climatic conditions, supporting low-growing vegetation such as heaths, grasses, and mosses.
- Riparian Marsh: Wetland areas adjacent to rivers and streams, characterized by marsh vegetation or dense thickets.

20.5 Species at Risk

Assessments were conducted to determine the potential presence of species at risk for projects within the vicinity of the Lac Virot Project. These evaluations considered species listed under Schedule 1 of the federal *Species at Risk Act* and those listed under the provincial *Endangered Species Act* of Newfoundland and Labrador.

The assessments concluded that the occurrence of species at risk within the Project area is unlikely. Vegetation surveys conducted during preliminary baseline studies for the Kami Project by Stassinu Stantec, as well as recent surveys by WSP in 2023, did not identify any species at risk in the area. Additionally, a data search from the Atlantic Canada Conservation Data Centre revealed no records of federally or provincially listed species at risk near the Project or the general region.

Given the findings of the assessment and the absence of identified species at risk, the Lac Virot Project is not anticipated to impact any federally or provincially listed species. Nonetheless, ongoing environmental monitoring will be implemented to ensure that any potential future occurrences of species at risk are promptly identified and appropriately managed.

20.6 Future Work

20.6.1 Environmental Studies

As part of the EA process at both the provincial and federal levels, a series of baseline environmental studies must be conducted to assess potential project impacts. These studies typically include:

- Sound monitoring—Evaluating noise levels and potential disturbances
- Air quality assessments—Measuring emissions and particulate matter
- Historical and heritage resource evaluations—Identifying and preserving cultural sites
- Hydrology and hydrogeology studies—Assessing water quality and groundwater impacts
- Fish and fish habitat surveys—Evaluating aquatic ecosystems
- Rare plant surveys—Identifying and protecting sensitive vegetation
- Ecological Land Classification—Including assessments of wildlife assemblages and wetlands
- Songbird and waterfowl studies—Evaluating avian species and their habitats.

The results of these studies will help determine whether the Project can be approved and, if so, what monitoring and mitigation strategies must be implemented.

20.6.2 Environmental Permitting

Once the EA process is successfully completed at both provincial and federal levels, the next step involves securing the necessary permits and approvals for construction and operation. The required permits will depend on project activities during the pre-production, operation, and rehabilitation phases.

The proponent must obtain:

- Provincial permits from the relevant agencies in Newfoundland and Labrador
- Federal permits if the Project falls under national jurisdiction
- Municipal approvals for compliance with local regulations.

Permitting will cover various aspects such as land use, water usage, emissions control, waste management, and site rehabilitation, ensuring that the Lac Virot Project adheres to all environmental and safety regulations throughout its lifecycle.

Table 20-1: Permits, Approvals, and Authorizations (Preliminary)—Newfoundland and Labrador

Permit, Approval, or Authorization Activity	Issuing Agency
Release from Environment Assessment Process	Department of Environment and Conservation (DOEC)—Environmental Assessment Division
Permit to Occupy Crown Land	DOEC—Crown Lands Division
Permit to Construct a Non-Domestic Well Water Resources Real-Time Monitoring Certificate of Environmental Approval to Alter a Body of Water Culvert Installation Fording Stream Modification or Diversion Other works within 15 m of a body of water (site drainage, dewater pits, settling ponds)	DOEC—Water Resources Management Division
Certificate of Approval for Construction and Operation Certificate of Approval for Generators Industrial Processing Works Approval of MMER Emergency Response Plan Approval of Waste Management Plan Approval of Environmental Contingency Plan (Emergency Spill Response) Approval of Environmental Protection Plan	DOEC—Pollution Prevention Division
Permit to Control Nuisance Animals	DOEC—Wildlife Division
Pesticide Operators License	DOEC—Pesticides Control Section
Blasters Safety Certificate Magazine License Approval for Storage & Handling Gasoline and Associated Products Temporary Fuel Cache Fuel Tank Registration Approval for Used Oil Storage Tank System (Oil/Water Separator) Fire, Life and Safety Program Certificate of Approval for a Waste Management System	Government Service Centre
Approval of Development Plan, Closure Plan, and Financial Security Mining Lease Surface Rights Lease Quarry Development Permit	Department of Natural Resources (DNR)—Mineral Lands Division
Operating Permit to Carry out an Industrial Operation During Forest Fire Season on Crown Land Permit to Cut Crown Timber Permit to Burn	DNR—Forest Resources
Approval to Construct and Operate a Railway in Newfoundland and Labrador	Department of Transportation and Works

Table 20-2: Permits, Approval, and Authorizations (Preliminary)—Canada

Permit, Approval or Authorization Activity	Issuing Agency
Authorization for Harmful Alteration, Disruption or Destruction (HADD) of fish habitat	Fisheries and Oceans Canada
Approval to interfere with navigation	Transport Canada

20.6.3 Rehabilitation and Closure Planning

The development of a comprehensive Rehabilitation and Closure Plan is a fundamental requirement under the Newfoundland and Labrador *Mining Act*. This plan outlines the strategies for rehabilitating a mining project at any stage, culminating in closure after cessation of operations, and establishes the basis for financial assurance for the Project.

Rehabilitation involves implementing measures to restore the property to a state that is as close as reasonably possible to its former use or condition, or to an alternative use or condition deemed appropriate and acceptable by the Newfoundland and Labrador Department of Natural Resources. Rehabilitation at closure should encompass the following activities:

- Dismantling, Salvaging, and Disposing of Infrastructure: All site infrastructure, including railways, buildings, structures, power lines, and equipment, should be safely dismantled, with materials salvaged or disposed of in an environmentally responsible manner.
- Rehabilitation of Roadways: All secondary and service roads should be decommissioned and rehabilitated to restore natural landforms and vegetation.
- Controlled Flooding of Open Pits: Where appropriate, open pits may be flooded in a controlled manner to create lakes or wetlands, contributing to local biodiversity and providing potential recreational opportunities.
- Secure Closure of Waste Rock Piles and Tailings Management Facility: Waste rock piles and tailings storage facilities should be stabilized and covered to prevent erosion and leaching of contaminants. This may involve the application of cover systems, revegetation, and ongoing monitoring.
- Re-Establishment of Site Drainage: Natural drainage patterns should be restored to manage surface water flow and prevent erosion. This includes the construction of channels, wetlands, or other water management structures as necessary.
- Post-Closure Monitoring: A comprehensive monitoring program should be implemented to assess water and air quality, vegetation success, and the stability of rehabilitated structures. Monitoring data should be used to inform adaptive management strategies and ensure the long-term success of rehabilitation efforts.

21 CAPITAL AND OPERATING COSTS

This section covers the capital cost estimate for the development of the Lac Virot Project, which includes mining, concentrating, concentrate and tailings handling, as well as related infrastructure to support the operations.

The capital and operating cost estimates were prepared as an Association of the Advancement of Cost Engineering International Class 4 estimate with an accuracy of ±40% and are reported using Q1 2025 United States dollars (US$). Where costs have been developed in Canadian dollar ($) they have been converted to US currency at a rate of C$1.00:US$0.6953.

21.1 Capital Cost Estimate

21.1.1 Basis of Estimate

The capital cost estimate includes mining, site preparation, process plant, tailings facility, power infrastructure, camp, Owner's costs, spares, first fills, buildings, roadworks, and infrastructure costs. The costs are defined as follows:

- Initial capital cost: required to construct all the surface facilities, and open pit development to commence operation. In this PEA, equipment selection and sizing have been based on available data and built from first principals with supporting quotations. The bulk material take-offs have been estimated based on high-level indicators and contractor supply and installation rates are based on benchmarks from similar projects in the region.
- Sustaining costs: include capital costs required to sustain the operation
- Closure costs: include all the costs required to close, reclaim, and complete ongoing monitoring of the mine once operations conclude.

21.1.2 Mine Capital Cost

Mine capital costs include pre-production stripping, mine equipment, mine dewatering, haul roads, truck shop and explosive storage. Mining activity commences prior to the process plant achieving commercial production. The costs include all associated management, dewatering, drilling, blasting, loading, hauling, technical and maintenance support, and grade-control costs.

Total mining capital costs are estimated to be $150.6 million for initial mining development and fleet purchases. Sustaining capital to maintain the mining fleet for the life of project are estimated at US$197.1 million.

21.1.3 Process Plant Capital Cost

Cost for the process plant includes direct costs related to crushing, handling, grinding, magnetic separation, concentrate and tailings dewatering, and plant services. These costs include capital procurement, freight, and all on-site construction services. Material quantities were estimated based on preliminary equipment information, with rates based on benchmarks from other recent similar projects. Fixed equipment pricing was based on vendor quotes for items exceeding US$1 million in value and the remainder coming from recent historical pricing.

The estimated initial capital costs for the process plant are US$207.3 million.

21.1.4 Filtered-Tailings Storage Facility Capital Cost

Direct capital costs for the FTSF include site preparation, developing the surface FTSF berms, water diversion and collection, as well as closure costs. The capital cost also includes the overland conveyor, storage building, and stacking conveyors that move the filtered tailings closer to the FTSF and pits for disposal.

The estimated capital cost for the FTSF is US$22.5 million.

21.1.5 Infrastructure Capital Cost

Infrastructure costs include the on- and off-site infrastructure facilities and earthworks. This includes the administrative, storage, assay lab and warehouse facilities; the access road; electrical substation and transmission line; concentrate conveying; and storage and the rail loop for train loading. The rail line consists of a loop and spur connecting to the main rail line for the Bloom Lake Railway approximately 4 km from the Lac Virot site.

The direct capital costs associated with infrastructure and utilities have been estimated at US$44.3 million. These costs cover essential developments that support mining operations, ensuring efficient functionality, safety, and long-term sustainability.

21.1.6 Sustaining Capital Cost Estimate

Sustaining capital refers to the ongoing capital expenditures necessary to maintain and support operations after the initial start-up phase. These investments ensure the continued efficiency, safety, and compliance of the Project throughout its operational lifespan.

The total sustaining capital costs have been estimated at US$247.5 million. Of this amount, approximately US$197 million is allocated to major mining equipment acquisition, rebuilds, replacements, and major repair work over the life of the mine.

The remaining balance is dedicated to critical infrastructure enhancements, including:

- Water Management Systems—Upgrades and expansions to manage site water effectively, ensuring compliance with environmental regulations and operational requirements.
- Tailings Facility Expansion—Additional capacity as outlined in the conceptual tailings deposition plan to support long-term waste storage and environmental sustainability.
- Mine Water Management Around Waste Piles—Implementation of measures to control and direct water flows around waste rock storage areas, reducing environmental impact.
- Electrical Loop Extensions for the Open-Pit Mine—Expanding and upgrading the electrical distribution network to accommodate mining activities as they progress deeper into the pit.

These sustaining capital investments are essential for maintaining operational efficiency, adhering to regulatory and environmental standards, and supporting the long-term viability of the mining operation.

21.1.7 Owners Costs

Owners costs have been developed assuming 120% of the total direct costs plus $1 million (US$695,300) to buy back a 1% royalty. Total owners costs have been estimated as $51.7 million

21.1.8 Indirect Costs

Indirect costs include Engineering, Procurement and Construction Management (EPCM), temporary construction facilities, and costs related to commissioning and start up. These indirect costs have been applied as a percentage of the overall project cost.

The EPCM costs have been estimated to 12.5%, with an additional 2.5% of other indirect costs making up 15% total indirect costs corresponding to an estimated value of $63.7 million.

A 20% contingency has been added to the total combined direct and indirect capital cost estimates with an estimated value of $107.9 million.

21.1.9 Capital Cost Summary

The capital cost estimate for the Project as envisaged in the 2025 PEA is summarized in Table 21-1.

Table 21-1: Capital Cost Estimate

Description	Initial (US$ M)	Sustaining (US$ M)	Closure (US$ M)
Mining	150.6	197	-
Process Plant	207.3	5	-
Tailings Facility	22.5	25	10
Infrastructure	44.3	15	-
Subtotal	424.7	-	-
Owners Cost	51.7	-	-
Indirect Costs	115.4	5.5	-
Subtotal	540.0	-	-
Contingency	107.9	-	-
Closure	-	-	110
Total	**647.9**	**247.5**	**120**

21.2 Mine Closure and Remediation Cost Estimate

The estimated costs for rehabilitation and mine closure have been calculated on a progressive basis, for restoration in a structured and phased manner. Beginning in Year 4 of operations, an annual allocation of US$5 million has been planned, culminating in a total expenditure of approximately US$120 million over the LOM.

These costs encompass all activities necessary to rehabilitate and restore the Lac Virot mine site to meet regulatory requirements, minimize environmental impact, and facilitate potential future land use. Key components of the rehabilitation and closure plan include:

- Waste Pile Rehabilitation—Stabilization and revegetation of waste rock piles to prevent erosion, manage water runoff, and support ecological restoration.
- Open-Pit Closure—Implementation of safety measures, potential backfilling, water management solutions, and habitat restoration to ensure long-term stability.
- Crusher Decommissioning—Safe dismantling and removal of crushing equipment, along with site remediation to restore affected land.
- Dry Stack Tailings Management—Final contouring, capping, and vegetation of dry stack tailings to prevent dust dispersion and enhance environmental integration.
- Concentrator Shutdown and Site Restoration—Decommissioning of processing facilities, removal of infrastructure, and remediation of any residual impacts to restore the area to a natural or repurposed state.

21.3 Operating Cost Estimate

21.3.1 Basis of Estimate

The operating costs for the Project were estimated annually and are based on a combination of first-principal calculations, reference projects, and factors suitable to support the development of a PEA. Operating costs have been split into labour, maintenance, consumables, power, mobile equipment and G&A. Operating costs have been developed on the basis of a plant feed rate of 9.0 Mt/a.

21.3.2 Mining Operating Cost

Operating costs were estimated on an annual basis over the life of the Lac Virot project. Over the life of the Project, the cost per tonne of material moved averages $3.09. When analyzed by activity (drilling, blasting, loading, hauling, auxiliary, and indirect costs), the haulage costs have the highest impact on total mining operation cost, making up approximately 47% of the cost. And when looked at by cost category, the bulk of costs is made up by consumables, parts, and materials. Mining operating costs are presented in Table 21-2.

Table 21-2: Life-of-Mine Operating Unit Costs per Tonne of Material Moved

Units Costs LOM	US$/t Moved	US$/t Processed	US$/t Concentrate
Drilling	0.14	0.20	0.64
Blasting	0.34	0.48	1.57
Loading	0.31	0.43	1.43
Hauling	1.46	2.04	6.72
Aux Eq. and Road Maintenance	0.37	0.52	1.70
Other Costs	0.95	1.33	4.26
Total	**3.58**	**5.01**	**16.03**

21.3.3 Process Plant Operating Cost

Operating costs have been estimated on an annual basis for the life of the Lac Virot project. The costs have been categorized as labour, maintenance, process consumables, power, mobile equipment, and G&A.

- Labour: Site labour requirements have been estimated as 94 personnel with crews working a 7-d on 7-d off schedule. Personnel numbers and salaries have been estimated based on recent similar projects.
- Maintenance: Maintenance costs are assumed to be 4.0% of the cost of mechanical equipment in the process plant.
- Process Consumables: Process consumables include liners for crushers and mills, grinding media, laboratory consumables, reagents, and filter cloths.
- Power: Power has been developed based on the total installed power and a power cost of $0.035/kWh.
- Mobile Equipment: It has been assumed that 35 non-mining vehicles will be operated at the site. These include light vehicles, loaders, forklifts, grades, excavators, and graders. The operating cost considers fixed and variable expenses.
- G&A costs capture training, personal protective equipment, recruitment costs, office supplies etc. These have been assumed based on recent similar projects.

Table 21-3: Process Plant Operating Costs

Units Costs LOM	US$/t Processed	US$/t Concentrate
Labour	0.76	2.48
Maintenance	0.51	1.68
Process Consumables	1.68	5.53
Power	0.45	1.48
Mobile Equipment	0.33	1.08
G&A	0.21	0.68
Total	**3.93**	**12.93**

21.3.4 Operating Cost Summary

The operating cost estimate for the Project as envisaged in this Technical Report is summarized in Table 21-4.

Table 21-4: Operating Cost Estimate

Area	Unit Cost	
	$/t Processed	$/t Concentrate
Mining	5.01	16.03
Process Plant	3.93	12.93
Tailings	0.68	2.23
Transportation and Logistics	5.47	18.00
Owners Cost	0.39	1.29
Total	**15.48**	**50.48**

22 ECONOMIC ANALYSIS

22.1 Method Used

The Economic Analysis for the Lac Virot Project was performed using a discounted cash-flow model to evaluate both pre-tax and post-tax scenarios. This analysis incorporates the capital and operating cost estimates from Section 21, which are based on mining and processing plans designed to produce a nominal 2.5 Mt/a of DR-grade iron concentrate. The financial evaluation includes key metrics such as the internal rate of return (IRR) and net present value (NPV), calculated on a 100% equity-financed basis using discount rates ranging from 0% to 15%. For the base case, an 8% discount rate was applied to determine the NPV, and the payback period for the initial Phase 1 capital investment was assessed using the Project's undiscounted annual cash flow.

To ensure a robust understanding of the Project's economic resilience, a sensitivity analysis was conducted on the pre-tax base case. This analysis examined the impacts of a ±20% variation in key parameters, including capital costs, annual operating costs, and the market price of DR-grade iron concentrate.

22.2 Financial Model Parameters

The economic analysis was based on the following assumptions:

- Construction Schedule: A two-year construction timeline aligned with key milestones presented in Section 25.
- LOM: A 27-year mine life for the base case, with no capacity expansion.
- Given the volatility of iron ore markets, the financial model integrates two pricing scenarios to evaluate potential revenue variations. In the base case scenario, the pricing assumption is set at $120/dmt for Platts TSI IODEX 65% Fe CFR China, as of February 10, 2025. This estimate aligns with Fastmarkets' long-term price forecast and represents a conservative outlook based on historical trends. To reflect the premium associated with DR-grade iron concentrate, a second pricing scenario was considered, incorporating a $32.2/t premium, leading to a total price assumption of $152.2/t. This premium reflects the higher purity and superior metallurgical properties of DR-grade iron concentrate, which is in increasing demand due to global decarbonization initiatives in the steel industry. The pricing assumptions for the Lac Virot Project are consistent with the methodology adopted by Champion Iron in its 2024 pre-feasibility study (PFS) for the nearby Kami Project.
- Sales Assumptions: All produced concentrate is sold within the same year.
- Cost Basis: All costs and sales estimates are in constant Q1 2025 dollars.
- Royalties: A 1% NSR royalty has been assumed.

The economic analysis in this section includes forward-looking information related to Mineral Reserve estimates, commodity prices, exchange rates, the proposed mine production plan, projected recovery rates, operating costs, construction costs, and the Project schedule. The outcomes of this analysis are subject to various known and unknown risks, uncertainties, and other factors that could cause actual results to differ significantly from those outlined in this report.

22.3 Economic Analysis

The economic analysis was performed assuming an 8% discount rate. The pre-tax NPV discounted at 8% (NPV 8%) is US$560.3 million, the IRR is 17.1%, and payback period is 5.3 years. On an after-tax basis, the NPV 8% is US$202.6 million, the IRR is 11.8%.

A summary of the Project parameters and economics are included in Table 22-1 and Table 22-2. The cash flow on an annualized basis is shown graphically in Figure 22-1. Closure costs expected beyond Year 27 have been discounted to Year 27 dollars and incurred in Year 27 for the purpose of the financial model.

Figure 22-1: Cashflow Forecast

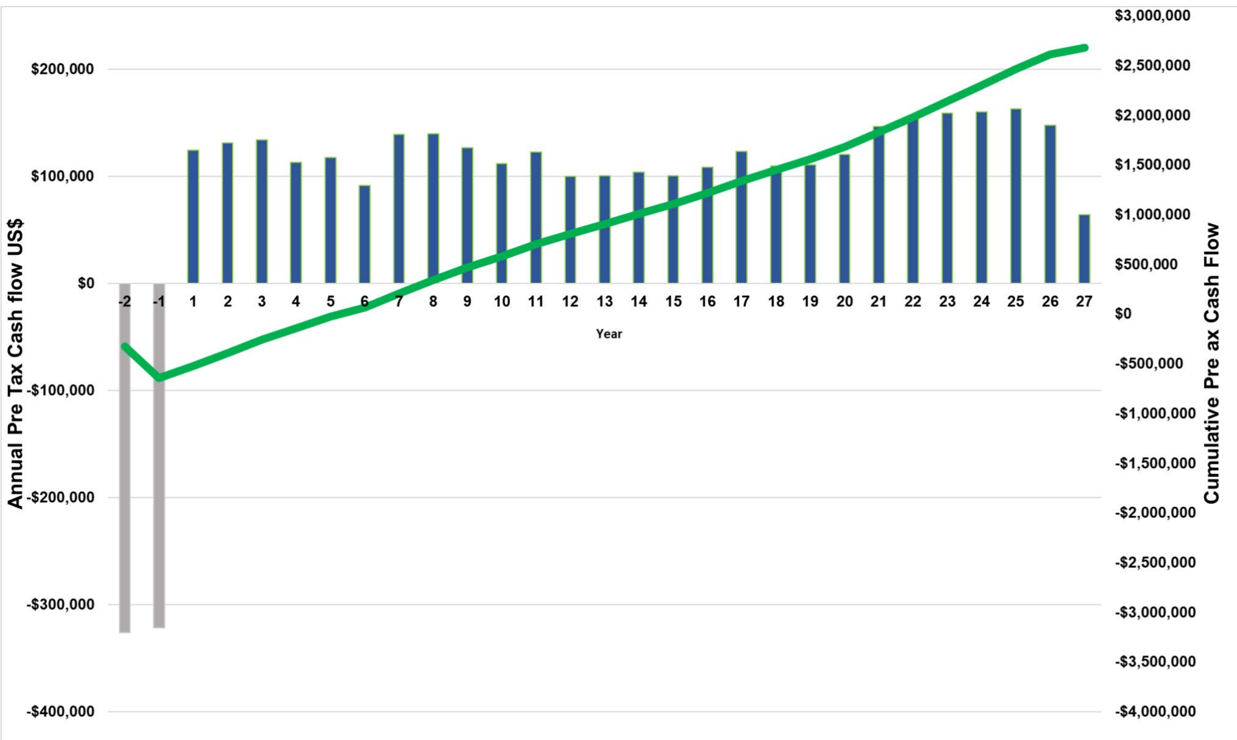


Table 22-1: Forecast Cashflow Summary

Parameter	Value
Base Case Economic Assumptions	
Exchange Rate (US$:C$)	0.6953
Discount Rate (%)	8
Mining	
Strip Ratio (waste: ore)	1.4
Total Mined Material (Mt)	545.6
Total Ore Mined (Mt)	227.3
Processing	
Processing Life (years)	27
Processing Throughput (Mt/a)	8.4
Average Fe Grade (%)	24.3
Production	
Fe Recovery (% to concentrate)	79.1
LOM Fe Production (Mt)	43.8
LOM Fe 76.5% Production (Mt)	64.8
LOM Average Annual Fe Production (Mt)	1.6
LOM Average Fe 76.5% (Mt)	2.5
Operating Cost (US$/dmt concentrate)	61.89
Royalty (NSR) (%)	1
Capital Expenditure	
Pre-Production Capital (US$ M)	648
Sustaining Capital (US$ M)	250
Closure Capital (US$ M)	120

Table 22-2: Project Pre-Tax Economic Results

Economics	Concentrate Price US$120/ dmt	Concentrate Price US$ 152.2/dmt
Pre-Tax IRR (%)	17.1	27
Pre-Tax NPV (8%) (US$ M)	560.2	1,283.1
Pre-Tax NPV (10%) US$ M)	363.8	952.5
Pre-Tax NPV (15%) US$ M)	62.3	392.1
LOM Pre-Tax Cash Flow US$ M)	2674	4,74.6

22.4 Sensitivity Analysis

A sensitivity analysis was conducted on the base case before-tax NPV of the Project, using the following variables: metal price, capital costs, operating costs, iron recovery, and iron head grade. Figure 22-2 and Figure 22-3 show the before-tax sensitivity analysis to NPV and IRR. On an NPV basis, the Project is most sensitive to changes in iron price, and to a lesser extent, to iron head-grade and recovery. The Project is least sensitive to changes in the capital and operating cost.

Figure 22-2: Before-Tax NPV Sensitivity Analysis

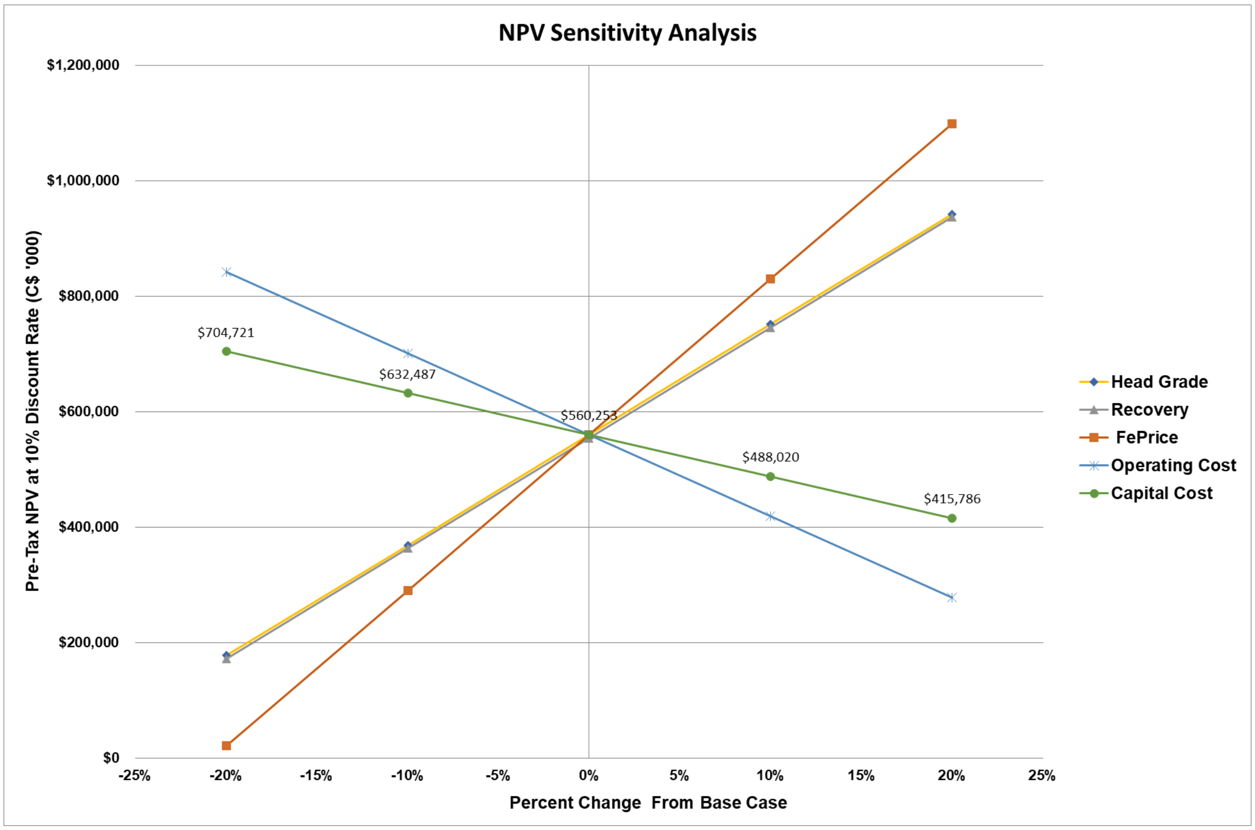
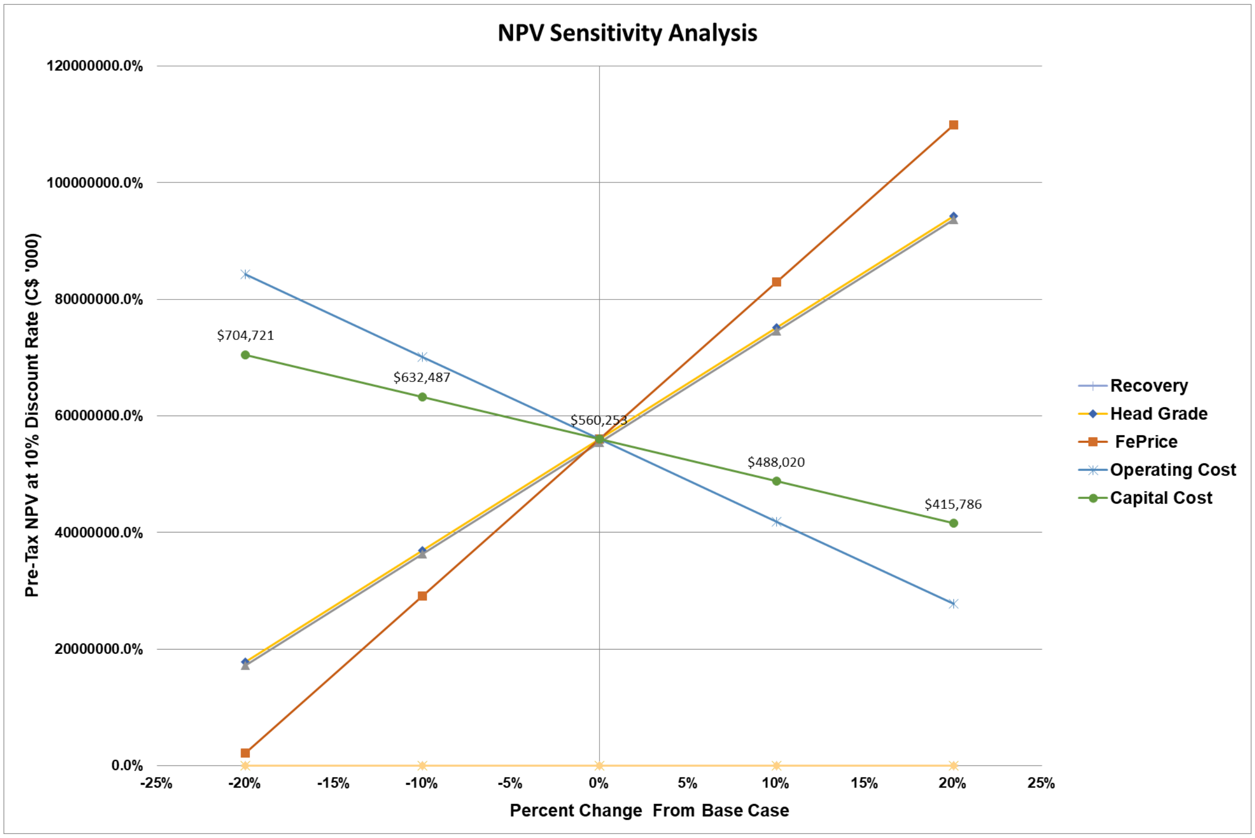


Figure 22-3: After-Tax IRR Sensitivity Analysis

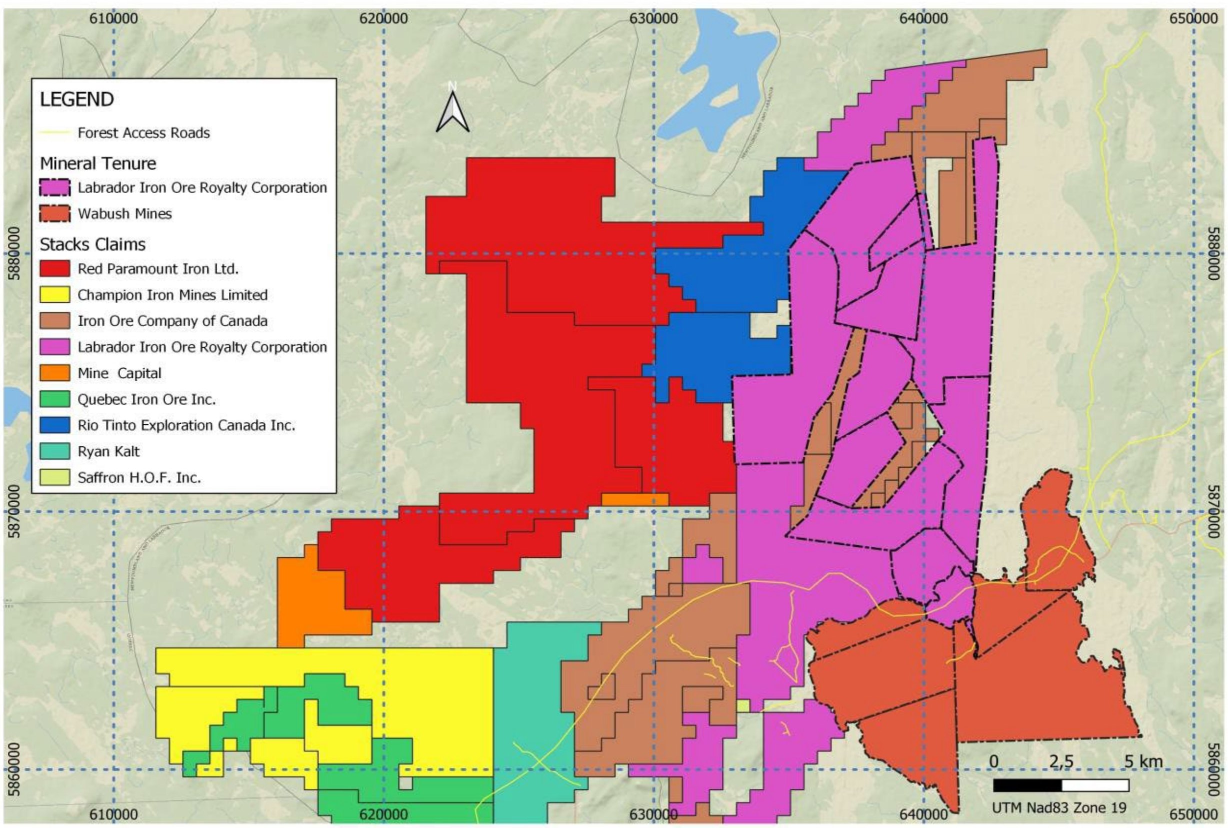


23 ADJACENT PROPERTIES

The property is bordered to the northeast by claims of Rio Tinto Exploration Canada Inc. (Rio Tinto), to the east by a mining lease of Labrador Iron Ore Royalty Corporation (LIORC), to the southeast by IOC, and to the south and west by Capital Mine (Figure 23-1).

The QP has been unable to verify the information, and the information is not necessarily indicative of the mineralization on the Lac Virot property that is the subject of this Technical Report.

Figure 23-1: Adjacent Properties



23.1 Iron Ore Company of Canada, Caro Mine Operation

IOC has been at the forefront of the Newfoundland and Labrador mining industry for over 60 years. IOC is the second largest iron ore producer in the country, and one of the largest private employers in Newfoundland and Labrador. IOC first began mining iron ore in the Schefferville and Menihek area of Québec and Labrador in 1954 and expanded into Labrador West in 1962 where it has been producing at the Carol Lake project ever since. LIORC holds 15.1% equity ownership, while Mitsubishi Corp. holds 26.2% and Rio Tinto holds the remaining 58.7%. IOC operates a mine, concentrator, and pellet plant near Labrador City, with a 418 km rail line, the Québec North Shore and Labrador Railway, linking the mine to its own port facility in Sept-Îles. IOC's products are shipped to markets throughout North America, Europe, the Middle East, and the Asia–Pacific region. IOC has remote operational logistics optimization centres in Labrador City and Sept-Îles. These centres help ensure the efficiency of the operation to achieve maximum productivity. IOC has mineral reserves and resources of 1.1 Bt and 1.7 Bt, respectively, with an average grade of approximately 38% Fe. Annual production capacity is 23.3 Mt of high-grade concentrate, of which 14 Mt can be processed to produce 12.5 Mt of pellets. Rio Tinto's saleable production guidance for IOC in 2022 is 17.0 to 18.7 Mt of iron ore concentrate and pellets.

23.2 Tacora Resources, Wabush Mines, Scully Mine

Tacora is a Canadian iron ore mining and processing company focused on the development of high-grade iron ore reserves and assets. Incorporated in British Columbia, Tacora's long-term strategic investors include Proterra Investment Partners, Aequor, Cargill, and MagGlobal. The Scully Mine consists of open pits; a concentrator and processing facilities; waste rock and tailings management facilities and a spur railway that connects to the Québec North Shore & Labrador railway where ore is railed to the port operator Société Ferroviaire et Portuaire de Pointe-Noire at Sept-Îles, Québec. Annual production capacity has historically been 5.6 to 6.0 Mt of iron concentrate. Tacora's short term strategy is to achieve name plate production capacity of 6.0 Mt/a of high-grade, low-impurity iron ore concentrate by the first half of 2022. Production has been ramping up since the second quarter of 2019 and will continue to 2023. In July 2022, Tacora commissioned a fines bypass project to divert material within the current process (i.e., material that is already small enough does not need to be crushed again). The project will effectively increase milling capacity.

In June 2022, Atlantic Canada Opportunities Agency announced a $3.3 million repayable investment to assist Tacora with its manganese reduction circuits (MRC) project, which will result in higher grade iron ore while reducing emissions. Tacora will invest a further $6.2 million towards the initiative. In all, Tacora spent US$44 million on its three major capital projects—the fines bypass, MRCs, and scavenger spirals projects. In April 2022, Tacora's expansion to its existing tailing impoundment was released from environmental assessment. The existing tailings impoundment area will reach full capacity by 2025, but iron ore reserves will last up to 2047. The expansion is scheduled to commence in October 2025.

23.3 ArcelorMittal Mines Canada, Mont Wright, and Fire Lake Mines, Québec

The Mont Wright mine in Québec, operated by ArcelorMittal, is among the largest iron ore mines in North America. With proven and probable reserves exceeding 1 Bt of high-grade iron ore, Mont Wright is a cornerstone of ArcelorMittal's mining operations and a vital contributor to global steel production.

The mine operates as part of an integrated mining and processing complex, featuring beneficiation facilities capable of processing approximately 26 Mt of ore annually. This results in the production of over 10 Mt of iron ore concentrate per year, which is of premium quality and essential for DRI and steel manufacturing. Mont Wright's logistics infrastructure includes a dedicated railway system that connects the site to the deepwater Port-Cartier, enabling the efficient export of materials to global markets. The mine's longevity and scale are supported by its extensive resource base, advanced operational efficiencies, and commitment to sustainable practices, securing its role as a critical player in the iron ore industry.

23.4 Champion Iron, Bloom Lake Mine, Québec

On April 11, 2016, Champion Iron officially became the new owner of the Bloom Lake Mine facilities, acquired from Cliffs Natural Resources for $10.5 million. The property is approximately 13 km north of Fermont, Québec, and 10 km north of the Mont Wright iron ore mining complex belonging to ArcelorMittal Mines Canada. The Bloom Lake Mine facilities include a railway that ensures the efficient transport of high-quality iron concentrate to a loading port in Sept-Îles, Québec.

The Bloom Lake Mine is a significant iron ore operation with substantial reserves and production capacity. Phase I of the Project holds reserves of 411.7 Mt with an average iron content of 30%, while Phase II expansion adds 807 Mt at 29% Fe. Phase I produces 7.4 Mt/a of high-grade 66.2% Fe concentrate, with an estimated mine life of 21 years, while Phase II increases capacity to 15 Mt/a of the same grade, extending the mine life to 20 years. Recovery rates are robust, at 83% for Phase I and 82.4% for Phase II. Average production costs are competitive, at 44.62/dmt for Phase I and 46.6/dmt for Phase II. Economic metrics highlight the mine's profitability, with Phase I achieving an NPV of 984 million (8% discount rate), while Phase II shows a more substantial NPV of 2.384 billion at the same discount rate.

23.5 Champion Iron, Kami Project

Champion Iron acquired the Kami iron ore project in 2020 through its subsidiary, Québec Iron Ore Inc., after the Project's previous owner, Alderon Iron Ore Corp., filed for bankruptcy. The Kami project is 12 km from the Lac Virot project, and is a significant iron ore development with substantial resources and strong strategic partnerships. The project holds NI 43-101-compliant resources of approximately 975.5 Mt, with an average grade of 29.6% Fe. On December 18, 2024, Champion Iron announced a partnership with Nippon Steel Corporation (30% equity stake) and Sojitz Corporation (19% equity stake), while retaining 51% ownership. The partnership involves an initial investment of $245 million, with potential contributions reaching up to $490 million, contingent on completing a definitive feasibility study (DFS) by mid-2026 and receiving a positive investment decision. Following the DFS, construction is projected to take approximately 48 months. The Kami Project is designed to produce high-grade 67.5% Fe DR-quality concentrate, crucial for low-carbon steelmaking. Its close proximity to the Bloom Lake Mine and established infrastructure, including rail connections and the port of Sept-Îles, ensures cost-efficient development and integration, further enhancing its potential as a key contributor to sustainable steel production.

24 OTHER RELEVANT DATA AND INFORMATION

No additional relevant information.

25 INTERPRETATION AND CONCLUSIONS

This PEA is based on the mining and mineral processing methods developed for the Lac Virot project. The NI 43-101 guidelines require that interpretations and conclusions, including an outline of key Project risks identified, be discussed.

25.1 Mineral Resource Estimate

The Mineral Resource was reported as Inferred, as shown in Table 25-1. The Mineral Resource was estimated using CIM (2019) and is reported in accordance with the CIM Definition Standards (CIM, 2014), which have been incorporated by reference into National Instrument 43-101 – Standards of Disclosure for Mineral Projects (NI 43-101).

In the QP's opinion, the Mineral Resources reported herein at the selected cut-off grade have "reasonable prospects for eventual economic extraction," taking into consideration mining and processing assumptions (refer to Section 14.13). The Mineral Resource was reported from within a Whittle optimized pit shell at a cut-off grade of 15% Fe.

The Lac Virot Mineral Resource estimate is the first such estimate and is based on validated 2012 drilling information.

Table 25-1: Lac Virot Inferred Mineral Resource Estimates above 15% Fe Cut-Off Grade—February 7, 2025

Name	Fe (%)	FeO (%)	SiO_2 (%)	P_2O_5 (%)	MnO (%)	MagFeSat (%)	Volume (Mm^3)	Tonnes (M)
All Combined South, Middle & North Pits	23.33	19.61	42.40	0.04	1.22	10.85	141.5	495.2
North Pit	23.016	21.34	41.26	0.04	1.16	9.61	90.9	318.0
Middle Pits	20.88	16.90	45.33	0.04	1.10	10.05	17.5	61.1
South Pit	25.10	16.30	44.36	0.03	1.46	14.69	33.0	115.4

Notes:

- A fixed density of 3.5 t/m^3 was used to estimate the tonnage from block model volumes.
- Resources are constrained by the pit shell and the topography of the overburden layer.
- The results from the pit optimization are used solely for the purpose of testing the "reasonable prospects for economic extraction" by an open pit and do not represent an attempt to estimate mineral reserves. There are no mineral reserves on the Property. The results are used as a guide to assist in the preparation of a Mineral Resource statement and to select an appropriate resource reporting cut-off grade.
- Mineral resources which are not mineral reserves do not have demonstrated economic viability. An Inferred Mineral Resources has a lower level of confidence than that applying to a Measured and Indicated Resources and must and must not be converted to a Mineral Reserves. It is reasonably expected that the majority of Inferred Mineral Resources could be upgraded to Indicated Mineral Resources with continued exploration.
- All figures are rounded to reflect the relative accuracy of the estimate and numbers may not add due to rounding.
- Effective date February 16, 2025.
- The estimate of mineral Resources may be materially affected by environmental, permitting, legal, title, taxation, socio-political, marketing or other relevant issues.
- Based on a cut-off grade of Fe of 15%.
- Resources are constrained within Red Paramount mineral rights.
- The pit optimization and base case cut-off grade of 15% iron (Fe) considers a pricing of US$120/t of concentrate at 67.5% Fe (US$160.80 /t of concentrate at 67.5%), Combined rock processing (US$5.21/t concentrate corresponding to US$1.61/t milled), transportation (US$23.75/t concentrate corresponding to US$7.35/t milled) and G&A cost (US$3.75/t concentrate corresponding to US$1.16/t milled) totalling US$13.13/t milled of mineralized material, open pit mining cost of US$3.00/t mined of mineralized material, an average pit slope of 45° for fresh rock, an average pit slope of 20° for overburden, and an average mining recovery of 95%, processing recovery of 80% and dilution of 5%, and a waste density of 2.9.

25.2 Open Pit Design

A pit optimization analysis was conducted using the Mineral Resource estimate and associated geological block model to determine the cut-off grade and the extent to which the deposit can be mined profitably. This analysis was performed with GEOVIA's Whittle optimization software, incorporating inputs such as mining and processing costs, block revenues, and operational parameters, including Fe recovery rates, pit slope angles, and other constraints.

The finalized mine design consists of four independent pits, each mined as a single phase. Table 25-2 and Table 25-3 provides a summary of these pits, which vary in size. The fir to be mined, Pit 1 contains 30 Mt of total material, while the largest, Pit 4, is designed to include 203 Mt of material.

Table 25-2: Pit Summary

Pit	Feed (kt)	Fe (%)	FeO (%)	P_2O_5 (%)	Waste (kt)	Total (kt)	Strip Ratio (W:O)
1	15,223	23.59	21.16	0.02	14,757	29,980	0.97
2	61,627	23.29	21.13	0.03	77,216	138,843	1.25
3	78,454	24.92	16.07	0.03	95,645	174,099	1.22
4	71,980	24.78	22.18	0.05	130,697	202,677	1.82
Total	**227,283**	**24.35**	**19.72**	**0.04**	**318,315**	**545,598**	**1.40**

25.3 Metallurgy and Processing

Metallurgical laboratory and pilot testwork were conducted during 2023 and 2024 to establish the process flowsheet developed in this PEA. The testwork campaigns achieved the desired quality of concentration, and demonstrated that by using the proposed process and flowsheet, it is possible to economically recover magnetite from the Lac Virot mineralization. Results from the testwork were used to determine process performance parameters such as throughput, Fe and weight recoveries, final concentrate grade (including key elements such as Fe, SiO_2, Al_2O_3 and P), and product particle size. These results were also used for determining final equipment sizing.

In order to produce DR grade iron concentrate, the mined material will be processed through three-stage crushing, magnetite separation, dewatering, and tailings dewatering. To enhance the product quality and improve recovery rates, reverse flotation and hydro-separation techniques were assessed during metallurgical testwork, and while the results demonstrated potential for effectively lowering silica levels with higher recovery rates, these processes have not been integrated into the current phase of project design. The flotation conditions and hydro-separation testwork showed promising outcomes, indicating that these methods could enhance the product's quality and recovery efficiency, although the cost benefit of improving the product quality has not been determined.

25.4 Infrastructure

The Lac Virot Project is strategically positioned to benefit from well-established infrastructure critical to its development. The region's robust rail network, including its proximity to the Bloom Lake Mine railway and direct connections to the Québec North Shore and Labrador Railway (QNS&L), enables the efficient transportation of iron products to the deepwater port of Sept-Îles, Québec. This ensures reliable, year-round access to global markets.

In addition to transportation advantages, the Project's proximity to Labrador City provides convenient access to essential utilities and services necessary to support mining operations. Its advantageous location within the region's integrated rail and port infrastructure allows the Lac Virot Project to seamlessly connect with adjacent iron operations, creating opportunities to leverage shared resources and optimize logistics.

25.5 Environmental and Permitting

The Lac Virot Project is subject to a comprehensive regulatory framework designed to ensure environmentally responsible mining practices. A critical component of this framework is the EA process, mandated under the Newfoundland and Labrador *Environmental Protection Act* (NLEPA). This process requires the collection of extensive environmental baseline data to evaluate potential impacts and develop appropriate mitigation strategies.

Given the Project's proximity to existing mining operations, there is an opportunity to use existing environmental data, which can streamline the EA process. However, it is essential to ensure that any previously collected data are current and relevant to the specific conditions of the Lac Virot site.

Upon successful completion and release from the EA process, the Project must obtain various permits, approvals, and authorizations from municipal, provincial, and federal regulatory bodies before commencing. In addition, throughout project construction and operation, compliance with terms and conditions of approval, various standards contained in federal and provincial legislation, regulations and guidelines is required.

25.6 Project Economics

The results of the unlevered pre-tax and post-tax economic analysis are presented in Table 25-3 and Table 25-4, respectively.

Table 25-3: Pre-Tax Economic Analysis

Economics	Concentrate Price (US$120/dmt)	Concentrate Price (US$152.2/dmt)
Pre-Tax IRR (%)	17.1	27
Pre-Tax NPV (8%) (US$ M)	560	1,283
Pre-Tax NPV (10%) (US$ M)	364	953
Pre-Tax NPV (15%) (US$ M)	63	392
LOM Pre-Tax cash flow (US$ M)	2,674	4,741

Table 25-4: Post-Tax Economic Analysis

Economics	Concentrate Price (US$120/dmt)	Concentrate Price (US$152.2/dmt)
Post-Tax IRR (%)	11.8	19.4
Post-Tax NPV (8%) (US$ M)	203	671
Post-Tax NPV (10%) (US$ M)	78.1	453
Post-Tax NPV (15%) (US$ M)	-93.8	137
LOM Pre-Tax cash flow (US$ M)	1,678	31,25

25.7 Opportunities

These initial Mineral Resources statements demonstrates that the Lac Virot Project has the potential to be profitable mining extraction. The Project is near surface and access to site is foreseen as relatively simple upon completion of an access road. Several opportunities for the Project are available to further enhance the Project:

- Expansion at each pit with additional resources.
- Sufficient space for resource improvement involving additional exploration and infill drilling.
- Potential resource expansion at other undrilled targets.

25.8 Risks

The main risks to project success identified within the recommendations would be:

- Changes in environmental regulations.
- Additional mineralogical and metallurgical testing on variability samples and representative composite material should be performed to establish flowsheet conditions that address all ore types. Magnetite liberation size is critical to confirming the rejection of tails material.
- The potential for additional area to the northeast since North Zone appears to continue to the northeast outside of Red Paramount mineral rights boundaries.
- Availability of skilled labour during the construction phase.

25.9 Conclusions

The Lac Virot Project is strategically positioned near Labrador City, allowing it to leverage existing infrastructure such as Wabush Airport, a skilled local workforce, an established rail network, and the deepwater port facilities in Sept-Îles. This advantageous location significantly reduces capital cost and lower operating costs.

The phased development approach reduces upfront capital requirements, enabling scalable production of premium DR-grade concentrate with high Fe content (>67%) and low impurities such as alumina and phosphorus. This product aligns with the needs of a steel industry focused on improving efficiency, reducing costs, and lowering greenhouse gas emissions, making it highly attractive to global markets transitioning to greener steelmaking technologies.

While power availability was initially identified as a key uncertainty, Government of Canada plans for the construction of a new transmission line from Churchill Falls to Labrador West will significantly mitigate this risk. This proposed transmission line, which is expected to supply additional renewable hydroelectric power, will not only meet the region's increasing energy demands but also enhance grid reliability. Funded in part through government programs like the Smart Renewables and Electrification Pathways Program, this infrastructure project ensures the Lac Virot and similar projects have access to sustainable and consistent power, crucial for its construction and operation phases.

Permitting and regulatory requirements remain an inherent aspect of mining developments globally. Evolving regulations and assessment processes could potentially impact project timelines and costs. However, proactive engagement with regulatory authorities, alongside comprehensive planning, will be key to navigating these challenges and ensuring successful project execution.

26 RECOMMENDATIONS

The Technical Report confirms that the Lac Virot Project is both technically feasible and economically viable, positioning it as a key supplier of DR-grade iron ore concentrate. To advance the Project toward commercial production and maximize its potential, several key strategic recommendations have been identified.

26.1 Advancement to Pre-Feasibility Study

A PFS should be undertaken to refine mine planning, metallurgical assessments, infrastructure requirements, and economic modelling. This will provide a more detailed evaluation of capital and operating costs, identify potential efficiencies, and further de-risk the Project. Key focus areas of the PFS should include optimizing pit design, developing a comprehensive mining schedule, and assessing the best processing routes to maximize recovery and product quality. Additionally, geotechnical studies and hydrological assessments will be required to refine the long-term viability of mining operations and infrastructure placement. Social and environmental impact assessments should also be conducted to ensure compliance with regulatory requirements and align with sustainable development goals.

26.2 Resource Expansion and Exploration

The current Mineral Resource remains open in multiple directions, providing a strong opportunity for expansion. It is recommended that additional drilling programs, including infill and step-out drilling, be conducted to improve Mineral Resource confidence and classification. Infill drilling will convert Inferred resources into Indicated and Measured categories, which is essential for future Mineral Reserve estimation and mine planning. Step-out drilling will explore the extensions of known mineralization, potentially increasing the Mineral Resource base and extending mine life.

Additionally, using existing environmental baseline data and geological information from surrounding operations will enhance exploration efficiency. Advanced geophysical surveys, geochemical analysis, and structural mapping will aid in identifying new target zones for drilling. Bulk density measurements should be conducted systematically to refine tonnage calculations and further improve resource modelling accuracy. Studies on ore variability should be expanded to improve predictive modelling of future production.

26.3 Metallurgical and Process Optimization

A comprehensive metallurgical testwork program is required to optimize processing and recovery rates. This should include mineralogy studies on variability and representative composite samples throughout the entire deposit. Additional testwork should focus on optimizing flotation conditions and evaluating the cost-benefit of adding a flotation circuit. Magnetization testing should be conducted to determine the magnetic response of the iron ore, aiding in assessing feed quality and iron concentration.

Further tests such as grindability, magnetic separation, and granulometry analysis will help determine optimal processing parameters. A detailed comminution study, including grindability tests, will be necessary to optimize the grinding circuit and reduce energy consumption. Pilot-scale testing and flowsheet development should be conducted to evaluate the most efficient recovery process for both hematite and magnetite. Additionally, full-scale DTT and HLS testing on bulk samples will establish achievable recovery rates and grade specifications. Metallurgical testing should also focus on assessing the potential for impurity removal and increasing concentrate purity to enhance marketability.

26.4 Infrastructure Development and Logistics Optimization

The Lac Virot Project's location presents significant logistical advantages, but securing infrastructure agreements is critical. Agreements should be established with Nalcor for a reliable and sustainable energy supply, ensuring operational stability and cost control. The planned transmission line from Churchill Falls to Labrador West will provide additional hydroelectric power, mitigating power supply risks and enhancing grid reliability. Additionally, finalizing agreements with the Port of Sept-Îles will ensure seamless access to global markets through cost-effective shipping solutions.

Rail access is another critical component, as it will facilitate the efficient transportation of iron ore concentrate to export terminals. Evaluating renewable energy integration, such as wind and solar power, should be considered to reduce carbon emissions and operational costs. Moreover, potential partnerships with other mining operations in the region should be explored to share infrastructure and reduce capital expenditures. Additional evaluations should assess the feasibility of developing on-site storage and loading facilities to enhance supply chain efficiency and reduce reliance on third-party logistics providers.

26.5 Tailings Management and Environmental Considerations

Effective tailings management is essential for minimizing environmental impact and ensuring long-term sustainability. The project should assess tailings disposal strategies, with a strong focus on filtered tailings and dry stacking methods. Dry stacking offers a lower-risk alternative to traditional tailings dams and reduces water consumption. Additionally, backfilling exhausted pits with dry-stacked tailings should be evaluated as a means to reduce surface footprint, improve land rehabilitation efforts, and mitigate long-term environmental liabilities.

Comprehensive environmental baseline studies should continue, focusing on water quality, biodiversity, and land reclamation strategies. Engaging with Indigenous and local communities to integrate sustainable practices and address environmental concerns will be crucial. Implementation of carbon footprint reduction initiatives, such as electrification of mining equipment and renewable energy adoption, will further enhance the Project's Environmental, Social, and Governance (ESG) credentials. Monitoring programs should also be established to track environmental performance and ensure compliance with local and federal regulations. The feasibility of using tailings for value-added applications, such as construction materials or cement additives, should also be explored to maximize resource efficiency.

26.6 Market Positioning and Strategic Partnerships

With increasing global demand for DR-grade iron ore concentrate, Red Paramount should focus on market positioning strategies to maximize project value. Securing long-term offtake agreements with steel producers and direct-reduction facilities will provide price stability and financial predictability. Exploring strategic partnerships or joint ventures with steel manufacturers and green steel initiatives will further enhance market access and project viability.

Participation in sustainability-focused initiatives, such as the ResponsibleSteel certification, could further strengthen the Project’s market appeal. Close collaboration with governments, trade organizations, and end-users will be key to ensuring strong demand for the Project's high-purity iron ore. Additionally, assessing the potential for premium pricing strategies based on product purity and ESG compliance will further enhance financial returns.

By advancing to a PFS, expanding resources, optimizing metallurgical processes, securing critical infrastructure agreements, and implementing sustainable tailings-management strategies, the Lac Virot Project can establish itself as a leading supplier in the low-carbon steel supply chain. With a strong focus on ESG principles, efficient resource utilization, and proactive risk mitigation, the Project is well-positioned for long-term success while minimizing environmental impact and maximizing economic returns.

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28 DATE AND SIGNATURE PAGE

this report titled *Preliminary Economic Assessment NI 43-101 Technical Report, Lac Virot DR–Grade Iron Ore Project, Newfoundland and Labrador, Canada*, (the "Technical Report"), with an effective date of February 16, 2025, and dated February 19, 2025, prepared for Red Paramount Iron Ltd. Was prepared and signed by the following authors:

	Original Signed and Sealed
Dated at Vancouver, British Columbia	***Ben Adaszynski, P.Eng.***
	Sedgman Canada Ltd.
	Original Signed and Sealed
Dated at Vancouver, British Columbia	***Aaron Massey, FAusIMM***
	Sedgman-Onyx
	Original Signed and Sealed
Dated at Vancouver, British Columbia	***Leon Botham, MSCE, P.Eng.***
	NewFields Canada Mining & Environment ULC
	Original Signed and Sealed
Dated at Vancouver, British Columbia	***Cristian Garcia, P.Eng.***
	Techser Mining Consultants
	Original Signed and Sealed
Dated at Vancouver, British Columbia	***Maxime Dupéré, B.Sc.***
	SGS Canada Inc

29 CERTIFICATE OF QUALIFIED PERSON

29.1 Ben Adaszynski, P.Eng.

I, Ben Adaszynski, as an author of this report titled *Preliminary Economic Assessment NI 43-101 Technical Report, Lac Virot DR–Grade Iron Ore Project, Newfoundland and Labrador, Canada*, (the "Technical Report"), with an effective date of February 16, 2025, and dated February 19, 2025, prepared for Red Paramount Iron Ltd. (the Issuer) in respect of the Issuer's Lac Virot property (the Property), do hereby certify that:

- I am the Manager, Process/Mechanical with Sedgman Canada Limited with an office at Suite 860, 625 Howe Street, Vancouver, BC, Canada.
- I am a graduate of the University of British Columbia (UBC) in 2009 where I obtained a Bachelor's of Applied Science in Process Engineering. Aside from the time spent studying at UBC, I have practiced my profession continuously since 2009. My relevant experience includes working in metallurgical testing labs and working in engineering design with Sedgman Canada.
- I am a Professional Engineer registered with the Engineers and Geoscientists BC registration number 40359.
- I have not visited the site.
- I have read the definition of "qualified person" set out in National Instrument 43-101 *Standards of Disclosure for Mineral Projects* (NI 43-101) and certify that by virtue of my education, affiliation to a professional association and past relevant work experience, I fulfill the requirements to be a "qualified person" for the purposes of NI 43-101.
- As a qualified person, I am independent of the Issuer as defined in Section 1.5 of NI 43-101.
- I am a co-author of the Technical Report, responsible for parts of Sections 1, 2, 3, 18, 19, 21, 22, 23, 24, 25, 26, and 27 of the Technical Report, as well as relevant parts in the Executive Summary, Introduction, Reliance on Other Experts, Interpretations and Conclusions, Recommendations, References and Date and Signature of the Technical Report, and I accept professional responsibility for those sections of the Technical Report.
- I have not had prior involvement with the subject property.
- As of the date of this certificate, to the best of my knowledge, information and belief, the portion of the Technical Report for which I am responsible contains all scientific and technical information that is required to be disclosed to make the portion of the Technical Report for which I am responsible not misleading.
- I have read NI 43-101 and Form 43-101F1, and the Technical Report has been prepared in compliance with NI 43-101 and Form 43-101F1.

Dated this 19th day of February 2025 in Vancouver, British Columbia, Canada.

"Original Signed and Sealed"

Ben Adaszynski, P.Eng.
Sedgman Canada Limited

29.2 Aaron Massey, FAusIMM

I, Aaron Wade Massey, as an author of this report titled *Preliminary Economic Assessment NI 43-101 Technical Report, Lac Virot DR–Grade Iron Ore Project, Newfoundland and Labrador, Canada*, (the "Technical Report"), with an effective date of February 16, 2025, and dated February 19, 2025, prepared for Red Paramount Iron Ltd. (the Issuer) in respect of the Issuer's Lac Virot property (the Property), do hereby certify that:

- I am a Principal Process Consultant with Sedgman Onyx with an office at 125 Murray St, Perth, Western Australia.
- I am a graduate of the Curtin University of Technology where I obtained a Bachelor of Engineering (Chemical). Aside from the time spent studying at Curtin University of Technology, I have practiced my profession continuously since 1994. My relevant experience includes 20 years' project evaluation, engineering design and project delivery with an additional 10 years operational experience on precious metal, base metal and bulk commodity projects in Australia, North America, Asia and Africa.
- I am a Fellow registered with the Australian Institute of Mining and Metallurgy, #205239.
- I did not visit the site during the study.
- I have read the definition of "qualified person" set out in National Instrument 43-101 *Standards of Disclosure for Mineral Projects* (NI 43-101) and certify that by virtue of my education, affiliation to a professional association and past relevant work experience, I fulfill the requirements to be a "qualified person" for the purposes of NI 43-101.
- As a qualified person, I am independent of the Issuer as defined in Section 1.5 of NI 43-101.
- I am a co-author of the Technical Report, responsible for Sections 13 and 17 of the Technical Report, as well as relevant parts in the Executive Summary, Reliance on Other Experts, References and Date and Signature of the Technical Report, and I accept professional responsibility for those sections of the Technical Report.
- I have not had prior involvement with the subject property.
- As of the date of this certificate, to the best of my knowledge, information and belief, the portion of the Technical Report for which I am responsible contains all scientific and technical information that is required to be disclosed to make the portion of the Technical Report for which I am responsible not misleading.
- I have read NI 43-101 and Form 43-101F1, and the Technical Report has been prepared in compliance with NI 43-101 and Form 43-101F1.

Dated this 19th day of February 2025 in Perth, Western Australia, Australia.

"Original Signed and Sealed"

Aaron Wade Massey, FAusIMM
Sedgman Onyx

29.3 Leon Botham, MSCE, P.Eng.

I, Leon Botham, MSCE, P.Eng., as an author of this report titled *Preliminary Economic Assessment NI 43-101 Technical Report, Lac Virot DR–Grade Iron Ore Project, Newfoundland and Labrador, Canada*, (the "Technical Report"), with an effective date of February 16, 2025, and dated February 19, 2025, prepared for Red Paramount Iron Ltd. (the Issuer) in respect of the Issuer's Lac Virot property (the Property), do hereby certify that:

- I am employed as a Principal Engineer with NewFields Canada Mining & Environment ULC, with an office at 446 2nd Avenue North, Suite 200, Saskatoon, Saskatchewan S7K 2C3.
- I am a graduate of the University of Saskatchewan in Saskatoon, Canada (B.E. Civil Engineering, 1988) and Purdue University in Indiana, United States (MSCE Civil/Geotechnical Engineering, 1991). I am a registered member in good standing of the Association of Professional Engineers and Geoscientists of Saskatchewan (License #06604), Engineers and Geoscientists British Columbia (License #35852), Professional Engineers of Ontario (License #90325408), Engineers Yukon (License #1482), Northwest Territories and Nunavut Association of Professional Engineers and Geoscientists (License #L1194), and a Member of the Canadian Institute of Mining, Metallurgy and Petroleum. I have worked in the field of mine waste management, mine water management and geotechnical engineering for 35 years since my graduation from university. I have relevant experience in tailings facility design, construction, feasibility studies, and technical report preparation for projects in Canada and internationally.
- 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 a professional association (as defined in NI 43-101), and past relevant work experience, I fulfill the requirements to be a qualified person for the purposes of NI 43-101.
- I have not visited the Property.
- I am responsible for parts of Sections 20 and portions of 18 and 21 of the Technical Report.
- I am independent of the Issuer and related companies applying all the tests in Section 1.5 of the NI 43-101.
- I have had no prior involvement with the Property.
- I have read NI 43-101, and the sections of the Technical Report for which I am responsible have been prepared in compliance with NI 43-101.
- As of the effective date of the Technical Report, to the best of my knowledge, information, and belief, the sections of the Technical Report for which I am responsible contain all scientific and technical information that is required to be disclosed to make the Technical Report not misleading.

"Original Signed and Sealed"

Leon Botham, P.Eng.
NewFields Canada Mining & Environment ULC

29.4 Cristian Garcia, P.Eng.

I, Cristian Garcia, P.Eng. as an author of this report titled *Preliminary Economic Assessment NI 43-101 Technical Report, Lac Virot DR–Grade Iron Ore Project, Newfoundland and Labrador, Canada* (the Technical Report), with an effective date of February 16, 2025, and dated February 19, 2025, prepared for Red Paramount Iron Ltd. (the Issuer) in respect of the Issuer's Lac Virot property (the Property), do hereby certify that:

- I am employed as a Principal Mining Engineer with TechSer Mining Consultants (TechSer), with an office address of 540 Hermosa Avenue, North Vancouver, British Columbia, Canada, V7N 3C1.
- I graduated from Universidad de Santiago de Chile in 2001 with a degree in mining engineering. I have practiced my profession for 20 years since graduation. I have been directly involved in several studies, working in consulting and operations in project evaluation, technical services group, and strategic mine planning. I have experience in scoping, and pre-feasibility and feasibility studies for underground and open pit projects.
- I am a registered Professional Engineer with Engineers and Geoscientists of British Columbia (Registration No. 58399).
- I have not visited the Property.
- I have read the definition of qualified person set out in National Instrument 43-101 (NI 43-101) and certify that by virtue of my education, affiliation to a professional association, and past relevant work experience, I fulfill the requirements to be a qualified person for the purposes of NI 43-101.
- As a qualified person, I am independent of the Issuer as defined in Section 1.5 of NI 43-101.
- I am a co-author of the Technical Report, responsible for Sections 16; 21.1, and 21.2 of the Technical Report, as well as relevant parts in Sections 1, 3, and 27, and I accept professional responsibility for my contributions to the Technical Report.
- I have no prior involvement with the Lac Virot Project.
- I have read NI 43-101 and Form 43-101F1, and the Technical Report has been prepared in compliance with NI 43-101 and Form 43-101F1.
- As of the date of this certificate, to the best of my knowledge, information and belief, the portion of the Technical Report for which I am responsible contains all scientific and technical information that is required to be disclosed to make the portion of the Technical Report for which I am responsible not misleading.

Dated this 19th day of February 2025 in North Vancouver, British Columbia, Canada.

“Original Signed and Sealed”

Cristian Garcia, P.Eng.
Techser Mining Consultants

29.5 Maxime Dupéré, B.Sc.

I, Maxime Dupéré, P.Geo., as an author of this report titled *Preliminary Economic Assessment NI 43-101 Technical Report, Lac Virot DR–Grade Iron Ore Project, Newfoundland and Labrador, Canada* (the Technical Report), with an effective date of February 16, 2025, and dated February 19, 2025, prepared for Red Paramount Iron Ltd. (the Issuer) in respect of the Issuer's Lac Virot property (the Property), do hereby certify that:

- I am a geologist with SGS Canada Inc, SGS Geological Services, with an office at 10 Boul. de la Seigneurie Est, Suite 203, Blainville, Québec, Canada, J7C 3V5.
- I am a graduate from the Université de Montréal, Québec in 1999 with a B.Sc. in geology. I am a member in good standing of the Ordre des Géologues du Québec (#501, 2006. I have practiced my profession continuously since 2001. I have 22 years of experience in mining exploration in diamonds, gold, silver, base metals, lithium, and iron ore. I have prepared and made several mineral resource estimations for different exploration projects including iron at different stages of exploration. I am aware of the different methods of estimation and the geostatistics applied to metallic, non-metallic and industrial mineral projects.
- I have not visited the property site but conducted verifications and validations at the core shack on drill core and data on February 13, 2023, in Wabush, Newfoundland Labrador.
- I am an author of this report and responsible for Sections 4 to 12, and 14.
- I am independent of Red Paramount Ltd. as defined in Section 1.5 of National Instrument 43-101.
- I have had no prior involvement with the subject property.
- I have read the definition of “qualified person” set out in the National Instrument 43-101 and certify that by reason of my education, affiliation with a professional association and past relevant work experience, I fulfil the requirements to be an independent qualified person for the purposes of NI 43-101.
- As at the effective date of the technical report, to the best of my knowledge, information and belief, this technical report contains all scientific and technical information that is required to be disclosed to make the technical report not misleading.
- I have read National Instrument 43-101, Form 43-101F1 and confirm that this technical report has been prepared in accordance therewith.

Signed and dated this 19th day of February 2025 at Blainville, Québec.

“Original Signed and Sealed”

Maxime Dupéré, géo.
SGS Canada Inc.