NATIONAL INSTRUMENT 43-101 TECHNICAL REPORT

MINERAL RESOURCE ESTIMATE

LABRADOR WEST IRON PROJECT

NEWFOUNDLAND AND LABRADOR, CANADA

Prepared For:

High Tide Resources Corp.

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Report prepared for

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1.0 SUMMARY

1.1 Overview

High Tide Resources Corp. (High Tide) retained Mercator Geological Services Limited (Mercator) and BBA E&C Inc. (BBA) to prepare an independent Technical Report (Report) disclosing the results of the maiden Mineral Resource estimate for their Labrador West Iron Project (Labrador West or the Project) located near Labrador City, Newfoundland and Labrador (NL), Canada. High Tide is a publicly-traded exploration company (CSE:HTRC) based in Toronto, Ontario, Canada.

This Report has been prepared in accordance with Canadian Securities Administrators' National Instrument 43-101, Standards of Disclosure for Mineral Projects (NI 43-101) and its related Form 43-101F1.

The Mineral Resource estimate was completed in accordance with CIM Estimation of MRMR Best Practice Guidelines (November 2019) and reported in accordance with the Canadian Institute of Mining, Metallurgy and Petroleum Definition Standards for Mineral Resources and Mineral Reserves as amended in May 2014 (CIM Definition Standards, May 2014). The Mineral Resource estimate was prepared by authors Ryan Kressall, P.Geo., and Matthew Harrington, P.Geo., from Mercator.

This Report summarizes historical work completed on the Project, the results of the 2020 and 2022 High Tide diamond drilling programs and the maiden Mineral Resource estimate based on the High Tide and historic Rio Tinto results. This Report also provides recommendations for further exploration, infilling drilling and metallurgical testing on the Project. The 2022 diamond drilling program described in this report was supervised by author Ryan Kressall, P. Geo., a Senior Project Geologist at Mercator, on behalf of High Tide between April 22nd and June 30th, 2022.

1.2 Property Description and Ownership

The Project is comprised of mineral licences 035223M (99 mineral claims in total), 2,475.5 hectares in size, and 100% owned by High Tide. The four mineral licences are located approximately 20 to 30 km northeast of Labrador City, NL. The Project is centred at map coordinates 651,500 m Easting and 5,897,500 m Northing (UTM NAD83 Zone 19N) within NTS Map Sheet 23G/02.

The Project is located in the southern Labrador Trough in western Labrador approximately 20 km northeast of Labrador City (pop. 7,720). Labrador City is serviced by the Wabush Airport (YWK) and the airlines flying out of the airport. These include Provincial Airlines, Air Inuit and Pascan Aviation. Additionally, the Quebec North Shore and Labrador Railway provides freight rail transportation to and from Sept-Îles, Quebec. The Trans-Labrador Highway (Route 500) serves as the only road connection to Labrador City, connecting it with the rest of Labrador as well as the neighboring province of Quebec, becoming Quebec Route 389 at the provincial border. The mineral licenses are not accessible by road. Some of the claims can be reached by boat in the summer and by snowmobile in the winter from Lake Shabogamo and Julienne Lake. During the 2020 and 2022 field seasons, Mercator staff and contractors lived in Labrador City and accessed the license area by daily helicopter flights from a staging area located just outside Labrador City off the Trans-Labrador Highway connecting Labrador City to Happy Valley – Goose Bay. The staging area is easily accessible by truck.

1.3 Geology and Mineralization

The Labrador Trough consists of Paleoproterozoic (2.17 to 1.87 Ga) sedimentary and volcanic rocks, which extend along the eastern margin of the Archean Superior Craton to Ungava Bay. The Labrador Trough forms the western part of a larger orogenic belt called the New Québec Orogen. In southwestern Labrador, the Labrador Trough extends into the younger Grenville Province, where the sedimentary rocks were deformed and metamorphosed ca. 1.0 Ga during the Trans-Hudsonian and Grenvillian orogenies. The western boundary of the Labrador Trough is the basal unconformity between Paleoproterozoic sedimentary rocks and the Archean basement. To the east, it is bounded by allochthonous deep water sedimentary and volcanic rocks, possibly derived from an oceanic realm. The sedimentary sequence of the Labrador Trough, termed the Kaniapiskau Supergroup, consists of the Knob Lake Group in the western part of the Trough including the Project area. The Kaniapiskau Supergroup is interpreted to include a lower rift-related sequence and an upper transgressive sequence that progresses from shelf sediments at the base through deep water turbidites and into shallow marine and terrestrial rocks at the top.

Iron deposits in the Labrador Trough are hosted in the Sokoman Formation (within the Knob Lake Group), which sits toward the top of the shelf sequence, above a thick package of shale, dolostones, and siliciclastic rocks. The Sokoman Formation consists of a 30–170-m-thick sequence of cherty iron-rich sediments, and is continuous for 250 km from Labrador City to Schefferville; it also continues into Québec in both directions, and is one of the most extensive iron formations on Earth. North of the Grenville Province, the stratigraphic sequence is largely intact, and the position and distribution of the Sokoman Formation is very predictable. Parts of this area experienced low-grade (greenschist facies) metamorphism and open to tight folding, but in the western foreland, the rocks are gently dipping and essentially undisturbed. In the southern part of the Labrador Trough, the rocks are highly metamorphosed and complexly folded, but the essential stratigraphy of the Kaniapiskau Supergroup remains discernable, albeit structurally disrupted. The productive unit in this area is locally known as the Wabush Iron Formation, but it is directly equivalent to the Sokoman Formation to the north.

In the Project area, the Sokoman Formation is informally divided into three iron formation lithofacies or facies types characterised by different mineralogy and textures. These lithofacies are not exclusive and there can be some overlap in mineral assemblages. Iron formations present in the Project area are known to be very heterogeneous and bands with very different composition and mineralogy can occur at the sub-millimetre scale.

Oxide Facies

The oxide facies is dominated by iron oxide minerals such as hematite and magnetite plus quartz (chert). There may be accessory carbonates (calcite or dolomite), silicates, and, rarely, manganese oxides or carbonates. Hematite and magnetite have a tendency to be easily recovered and beneficiated to high purity concentrates and are therefore the most desirable iron mineralogy. Manganese is an undesirable element, and its mineral deportment may have major impacts on metallurgy. In the southern Labrador

Trough, original manganese oxides may have reacted with quartz to form rhodonite or carbonates to form kutnahorite during high-grade regional metamorphism.

Carbonate Facies

The carbonate facies iron formation consists of quartz (chert) and iron-rich carbonate. In the Project area, the carbonate is of variable grainsize and light to dark grey in colour and commonly weathers to a distinctive reddish-brown colour. Composition appears to vary from almost pure siderite to ferroan dolomite. Quartz is generally white and recrystallised but in places may be cherty and almost black on freshly broken surfaces. Rocks are generally thinly-banded, with layers usually ranging from a few millimetres to several centimetres. Thicker banding appears to be associated with proximity to oxide facies iron formation and in places carbonate and quartz-rich bands may be up to tens of centimetres thick. Some of the fine banding may be developed by transposition, especially in high-strain zones, but some is related to relict bedding and it can be difficult to distinguish between the primary and tectonic fabrics in small outcrops.

As a chemically intermediate type, carbonate iron-formations may grade into, or be interbedded with each of the other iron formation facies. The usual transitions are to complex silicate-magnetite-carbonate-quartz rocks, interpreted to represent original quiet-water, more micritic environments. Reaction of carbonates and silicate species to fibrous tremolite and other silicate species (quartz+pyroxene+amphibole+garnet) appears to occur with increasing grade of metamorphism, especially in original, finely laminated lithofacies that have been more highly deformed. However, there are enclaves where quartz-carbonate assemblages are preserved, presumably where CO_2 could not escape from the system.

Silicate Facies

In the Project area, silicate-rich iron formation facies are typically thin- to medium-banded with quartz-rich bands from millimetres up to several centimetres thick. Fibrous amphiboles such as grunerite are common in some areas. Elongate silicate grains often define pronounced stretching lineation in high strain zones. Magnetite content is highly variable and locally may occur in semi-massive bands up to several centimetres thick. Silicate facies lithology codes were used for any metre scale rock units where silicate and carbonate appear to comprise greater than 10 % of the interval.

The Sokoman Formation falls within the Kaniapiskau Supergroup and has been subdivided into three members. The lower part of the Sokoman Formation (Lower Iron Formation) consists largely of carbonate-silicate facies with some magnetite. This grades upward into an oxide facies with abundant coarse-grained hematite and/or magnetite and sugary textured quartz (Middle Iron Formation). These oxide-rich beds are the most important economically, with iron-rich layers and lenses commonly containing more than 50% hematite and magnetite. The upper part of the Sokoman Formation (Upper Iron Formation) is carbonate-silicate facies with minor oxides. The Sokoman Formation is interbedded in places with mafic volcanic rocks of the Nimish Formation and is underlain by quartzites of the Wishart Formation. The overlying rocks (Menihek Formation) consist largely of graphitic, chloritic, and micaceous schists. The iron rich units on the property are thought to sit mostly within the Middle Sokoman Formation with most holes ending in the Wishart Formation quartzites.

1.4 History

Between 2007 and 2014, Rio Tinto completed a total of 19 historical drill holes as well as LiDAR, airborne magnetic, electromagnetic, and gravity surveys. Based on results of these programs it was concluded that discovering an economically viable iron deposit in the area would require careful assessment of stratigraphic and lithological factors as well as structural factors, such as folding and faulting, that may have the effect of upgrading thinner mineralized units into structurally thickened, more economically attractive packages. The 2020 and 2022 High Tide diamond drill hole programs were designed to test the lithological and iron grade continuity between several key and widely spaced historical Rio Tinto drill holes completed on the property.

1.5 Exploration and Drilling

A total of 11 diamond drill holes totalling 3,299 m have been completed by High Tide on the property, including four NQ-diameter diamond drill holes totaling 1,000 m in 2020 and seven HQ/NQ-diameter diamond drill holes totaling 2,299 m in 2022. The two diamond drill hole programs confirm the iron grade continuity between the widely spaced historical Rio Tinto drill holes and provide the necessary spacing to interpret a geological model and define Inferred Mineral Resources.

All ten drill holes completed in 2020 and 2022 by High Tide intersected intervals of oxide facies iron formation, containing abundant specular hematite and/or magnetite that are variably interbedded with typically altered lithologies that assign to silicate and carbonate iron formation facies. These results are directly comparable to the positive results returned for the four historical Rio Tinto drill holes that are located in the immediate area of the 2020 core drilling program.

1.6 Mineral Processing and Metallurgical Testing

High Tide mandated BBA to conduct a review of the metallurgical testwork conducted to date on samples sourced from drilling campaigns conducted on the Project.

Two testwork programs were completed to date on samples from the Project and include the following tests:

- Chemical analysis on each composite, including SATMAGAN (SAT) analysis on some samples;
- Heavy Liquid Separation (HLS) test at 3.32 g/cm^3 on material ground at 100% passing 850, 600, 425, 250 and 150 µm respectively;
- Davis Tube (DT) testing at 100% passing 250, 150, 75, 53 and 45 µm respectively;
- SAG Power Index (SPI) grindability test;
- Bond Work Index (BWi) grindability test for a 150 µm grind;
- Wilfley Table (WT) testing on material crushed to 100% passing 425 µm.

Beneficiation testwork results were generated for six hematite-dominant composite samples in 2012 and for 21 hematite-dominant composite samples in 2020. Grindability testwork was conducted on three hematite-dominant samples.

The grindability testwork results showed an average SPI of 10.8 minutes and an average BWi of 13.9 kWh/t for the three samples tested, indicating relatively soft rock in terms of coarse grinding and rock of average hardness in terms of fine grinding, compared to other iron ores in the region.

The SAT analysis and the DT testwork results indicated that the samples selected had a fairly low magnetic content.

The HLS and WT testwork results indicated that the silica contained in the samples selected for testing is liberated at grind sizes finer than 600 µm. Results showed that concentrate with a silica content below 4% could be produced via gravity recovery methods using a grind size of 425 µm, with recovery rates in the order of 70-75%. Results also indicated that grinding to 150 µm would be required to produce concentrate with a silica content below 2%.

1.7 Mineral Resource Estimate

The definition of Mineral Resource and associated Mineral Resource categories used in this Report are those recognized under NI 43-101 and set out in CIM Definition Standards (May, 2014).

The Mineral Resource estimate was prepared under the supervision of QP author Mr. Matthew Harrington, P. Geo., with an effective date of January 31, 2022. A summary of the Labrador West Mineral Resource constrained within a conceptual open pit shell is presented in Table 1-1. Assumptions, metal threshold parameters and deposit modelling methodologies associated with the Mineral Resource are summarized in notes underneath Table 1-1.

Factors that may materially impact the Project Mineral Resource include, but are not limited to, the following:

- Changes to the long-term iron prices assumptions including unforeseen long term negative market pricing trends, and changes to the CA$:US$ exchange rate;
- Changes to the deposit scale interpretations of mineralization geometry and continuity;
- Variance associated with density assignment assumptions and/or changes to the density values applied;
- Inaccuracies of deposit modelling and grade estimation programs with respect to actual metal grades and tonnages contained within the deposit;
- Changes to the input values for mining, processing, and G&A costs to constrain the Mineral Resource;
- Changes to metallurgical recovery assumptions including metallurgical recoveries that fall outside economically acceptable ranges;
- Variations in geotechnical, hydrological, and mining assumptions;
- Changes in the assumptions of marketability of the final product;

- Issues with respect to mineral tenure, land access, land ownership, environmental conditions, permitting, and social license;

Table 1-1: Labrador West Project Mineral Resource Estimate – Effective Date: January 23, 2023*

Type	Cut-off (Fe %)	Category	Tonnes (Mt)	FeT %
Pit Constrained	15	Inferred	654.9	28.84

Notes:

1. Total iron (FeT) Mineral Resources include only oxide-facies iron formation (magnetite or hematite dominated).
2. Mineral Resources are defined within an optimized conceptual pit shell with an overall pit slope angle of 50° and a 1.3:1 strip ratio (waste: mineralized material)
3. Pit shell optimization parameters include: pricing of CDN $129 /tonne for 65% Fe concentrate, exchange rate of CDN$1.30 to US$ 1.00, mining cost at CDN $3.00/t, processing cost at CDN $4.55/t processed, tailings cost at CDN $0.35 processed, rail & port cost at CDN $18.00/t shipped, G & A Cost at CDN $5.00/t processed, Ocean Freight at $28.00/t shipped and mill recovery at 80%.
4. A cut-off grade of 15% FeT was selected for definition of the Mineral Resource.
5. Mineral Resources were estimated using Inverse Distance Squared methods applied to 3 m downhole assay composites. Iron grades were capped at 50 % FeT. Model block size is 20 m (x) by 20 m (y) by 12 m (z).
6. Bulk density for the block model was calculated from a linear regression relationship between FeT (%) and core specific gravity measurements from the Project. The average bulk density estimated for the deposit is 3.10 g/cm^3.
7. Mineral Resources may be materially affected by environmental, permitting, legal, title, taxation, sociopolitical, marketing, or other relevant issues.
8. Mineral Resources are not Mineral Reserves and do not have demonstrated economic viability.
9. Mineral Resource tonnages are rounded to the nearest 100,000.

1.8 Conclusions

Detailed evaluation of the historical Rio Tinto datasets and the 2020 and 2022 core drilling results have resulted in the preparation of a maiden Inferred Mineral Resource estimate for Project. To date, exploration has been focused on the assessment of the thickening of synclinal structures within the Labrador West Trough and this will continue to be an important exploration tool on the Labrador West property. The 2020 and 2022 diamond drilling results have defined substantial thicknesses and total iron grades for the areas drilled to date and these results correlate well with those for nearby Rio Tinto historical drill holes.

1.9 Recommendations

The recommended work program is broken down into two phases of work (Table 1-2). The first phase focuses on environmental baseline studies, metallurgical studies, analytical work, and desktop studies in advance of a Preliminary Economic Assessment (PEA). The second phase reflects preparation of an updated Mineral Resource Estimate and PEA for the Project and includes completion of a 4,000 m diamond drill program, for the purpose of upgrading of 25 – 50 % of Inferred Mineral Resources to the Indicated category, along with continued environmental baseline and metallurgical studies. The proposed work program includes price estimates for the necessary diamond drilling, metallurgical testwork and environmental evaluations to meet these objectives.

Table 1-2: Recommended Work Program Budget for the Project

Phase 1	Task	Estimated Cost
	Environmental Baseline Study (year 1)	$200,000
	Metallurgical Studies (composites, gravity, mag., flotation)	$270,000
	Desktop Study (prelude to PEA)	$130,000
	Additional Analytical Work (trace element, polished section, etc.)	$100,000
	Phase 1 subtotal	**$700,000**
	1,000 m Contingency Drilling for Sample Material - Optional	$800,000
	Phase plus Optional	**$1,500,000**
Phase 2	**Task**	**Estimated Cost**
	4,000 m Drill Program – Target 25 - 50% Upgrade of Inferred Mineral Resource to Indicated	$3,200,000
	Updated Mineral Resource Estimate	$100,000
	Preliminary Economic Analysis Estimate (PEA)	$250,000
	Environmental Baseline/Data Collection	$750,000
	Metallurgical (beneficiation, pelletisation, basket test work (DRI/HBI)	$1,250,000
	Phase 2 subtotal	**$5,550,000**
	Phase 1 & 2 contingency 10%	$705,000
	Phase 1 & 2 Total	**$7,755,000**

2.0 INTRODUCTION

2.1 Scope of Reporting

High Tide Resources Corp. (High Tide) retained Mercator Geological Services Limited (Mercator) and BBA E&C Inc. (BBA) to prepare an independent Technical Report (Report) disclosing the results of the maiden Mineral Resource estimate for their Labrador West Iron Project (Labrador West or the Project) located near Labrador City, Newfoundland and Labrador (NL), Canada. High Tide is a publicly-traded exploration company (CSE:HTRC) based in Toronto, Ontario, Canada.

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This Report summarizes historical work completed on the Project, the results of the 2020 and 2022 High Tide diamond drilling programs and the maiden Mineral Resource estimate based on the High Tide and historic Rio Tinto results. This Report also provides recommendations for further exploration, infilling drilling and metallurgical testing on the Project. The 2022 diamond drilling program described in this report was supervised by author Ryan Kressall, P. Geo., a Senior Project Geologist at Mercator, on behalf of High Tide between April 22nd and June 30th, 2022.

Measurement units used in this Report are in metric and the currency is expressed in Canadian dollars unless otherwise noted.

2.2 Qualified Persons

The Report authors are independent Qualified Persons (QP) as defined by NI 43-101. Sections of responsibility for each author is specified in Table 2-1. Neither Mercator or BBA, nor the authors of this Report, have any material present or contingent interest in the outcome of this Report, nor do they have any financial or other interest that could be reasonably regarded as being capable of affecting their independence in the preparation of this Report. This Report has been prepared in return for professional fees based upon agreed commercial rates and the payment of these fees is in no way contingent on the results of this Report. None of the Report authors are a director, officer or other direct employee of High Tide or have any shareholdings in the company.

Table 2-1: Responsibilities of Authors

Author	Status	Date of Last Site Visit	Technical Report Section Responsibilities
R. Kressall, P. Geo, Mercator Geological Services Ltd.	Independent	June 23 to 30th, 2022	1 except 1.6 and 1.7, 2 through 12, 23, 24, 25 except 25.5 and 25.6, 26 except for 26.2, 27 and 28
M. Harrington, P. Geo., Mercator Geological Services Ltd.	Independent	NA	1.7, 14 except for 14.5, and 25.5
C. Pelletier, P.Eng BBA E&C Inc.	Independent	NA	1.6, 13, 25.6, 26.2
J. Cassoff, P.Eng, BBA E&C Inc.	Independent	NA	14.5

2.3 Personal Inspection and Data Verification

Report author Ryan Kressall completed a personal inspection (site visit) of the Project between June 23rd to June 30, 2022. This site visit was completed for the purposes of site inspection and supervision of ongoing active drilling activities (2022 diamond drilling program) and to satisfy NI 43-101 “personal inspection” requirements. During his site visit, Mr. Kressall visited the Project and verified the geology, mineralization, local infrastructure, and accessibility into the project area for future exploration and drilling activities by High Tide.

During the site visit the Report author completed the following tasks and inspections:

- Completion of the 2022 diamond drilling program, core logging, and sampling.
- Reviewed the data collection and Quality Control and Quality Assurance (QA/QC) procedures for the drilling and sampling programs.
- Review and inspection of the High Tide core shack and storage facility in Labrador City, Newfoundland
- Completed numerous site visits during drilling operations, including a final sit inspection to each 2022 drill hole location.

The site visit completed by the Mr. Kressall between June 23rd 30th, 2023, confirmed the following:

- The Project core facility was well organized and proper QA/QC procedures were in place for core logging and sampling.
- Iron mineralization was evident in the core samples reviewed and sample intervals were properly documented in core boxes and in the core logging database.
- Accessibility to the Project area was limited to helicopter access.

In addition, based on a detailed review of the available historical rock and soil geochemistry data, geophysical data, past drilling programs, and QA/QC procedures, including exploration and drilling programs recently completed on the Project by Altius and Rio Tinto, the Report author is satisfied this meets the data verification requirements under NI 43-101. The High Tide drilling program was designed according to CIM Mineral Exploration Best Practice Guidelines and no issues or fatal flaws were detected during the site visit.

Report author Mr. Kressall also visited the core facility in Labrador City, Newfoundland from July 14 to 28th, 2021 for the purpose of reviewing and collecting representative samples of historical drill core; and metallurgical sampling of two drill holes (12LB0045 and 20LB0057). During this visit, Mr. Kressall completed the following task.

- Review and inspection of the High Tide core storage facility in Labrador City, Newfoundland and compared select core intervals with original drill logs and sampled intervals.
- Collected representative quarter core samples of all lithological units logged on the Project.

The site visit completed by Mr. Kressall between July 14, 2021, and July 28, 2021, confirmed the following:

- Iron mineralization was evident in the historical core samples reviewed and sample intervals were properly documented in core boxes and in the core logging database.

2.4 Information Sources

Sources of information, data and reports reviewed as part of this Report can be found in Section 27. The Report authors take responsibility for the content of this Report and believe the data review to be accurate and complete in all material aspects.

The following technical report has been previously filed on the property:

- Philippe, A., and Webster, P., 2020. NI 43-101 Technical Report on the Labrador West Iron Project, Newfoundland and Labrador, Canada; report prepared by Mercator Geological Services Ltd. for High Tide Resources Corp., effective date November 20, 2020, 80 p.

Exploration claim information, historical assessment reports, and exploration and drilling data were acquired by Mercator from public sources. Historical and recent exploration and drilling data was loaded into a Microsoft Access database and Leapfrog and validated by Mercator staff prior to evaluation and reporting.

2.5 Table of Abbreviations

Abbreviation	Term
3D	three-dimensional
Actlabs	Activation Laboratories Ltd.
Altius	Altius Resources Inc.
BBA	BBA E&C Inc.
BWi	Bond Work Index
Carol Lake	Carol Lake Iron Ore Mining Operations
CIM	Canadian Institute of Mining, Metallurgy and Petroleum
DIET	Newfoundland and Labrador Department of Industry, Energy and Technology
DSO	Direct shipping ore
DTM	digital terrain model
DT	Davis Tube
EL	exploration licence
EM	Electromagnetic
GNL	Government of Newfoundland and Labrador
GPS	global positioning satellite
GSR	Gross sales royalty
GSC	Geological Survey of Canada
High Tide	High Tide Resources Corp.
HLS	Heavy Liquid Separation
ICP-OES	Inductively Coupled Plasma Optical Emission Spectrometry
IDS	Inverse Distance Squared
IEC	International Electrotechnical Commission
IOC	Iron Ore Company of Canada
ISO	International Organization for Standardization
Labrador West	Labrador West Iron Project
LiDAR	light detection and ranging
LIORC	Labrador Iron Ore Royalty Corporation
LOI	Loss on Ignition
Mag Susc	Magnetic Susceptibility
Mercator	Mercator Geological Services Limited
Mt	millions of tonnes
NI 43-101	National Instrument 43-101
NL	Newfoundland and Labrador
NSR	Net smelter returns
OK	Ordinary Kriging
P.Geo.	Professional Geologist
PEA	Preliminary Economic Assesment
Procam	Procam International Inc.
Project	Labrador West Iron Project
QA/QC	quality assurance and quality control
QP	Qualified Person (within the meaning of NI 43-101)
Report	Independent Technical Report
RQD	Rpcl quality designation

Abbreviation	Term		
Sat	Satmagan		
SG	Specific gravity		
SGS	SGS Minerals Services Labratory		
SPI	SAG Power Index		
TCR	Total core recovery		
UTM	Universal Transverse Mercator		
WT	Wilfley Table		
k	Thousand		
Ma	million of years		
Ga	billions of years	°	degree symbol
ca	circa	%	Percent
et al.	and others	R^2	Correlation Coefficient
C	Celsius	Fe	Iron
ha	hectare	FeT	Total Iron
kg	kilogram		
km	kilometre		
lbs	pounds		
ft	foot		
"	inch		
µm	micrometre		
m	metre		
mm	millimetre		
cm	centimetre		
ml	millilitre		
/	per		
g	gram (0.03215 troy oz)		
oz	troy ounce (31.04 g)		
Oz/T to g/t	1 oz/T = 34.28 g/t		
Sn	tin		
st	short ton (2000 lb or 907.2 kg)		
ppb	parts per billion		
ppm	parts per million		

3.0 RELIANCE ON OTHER EXPERTS

The QP has relied upon information provided by High Tide concerning any legal, political, environmental, or any option, joint venture or royalty matters relating to the Project. The QP acquired mineral title information on the mineral licence that is the subject of this Report from the Newfoundland and Labrador Department of Industry, Energy and Technology (DIET) online Mineral Rights Inquiry Portal. This information showed the subject mineral claims to be in good standing as of the effective date of the Report. However, the QP has not independently verified the status of, nor legal titles relating to, the mineral licences and their associated mineral claims.

The QP has no reason to believe that any of the information used to prepare this Report is invalid or contains misrepresentations.

4.0 PROPERTY DESCRIPTION AND LOCATION

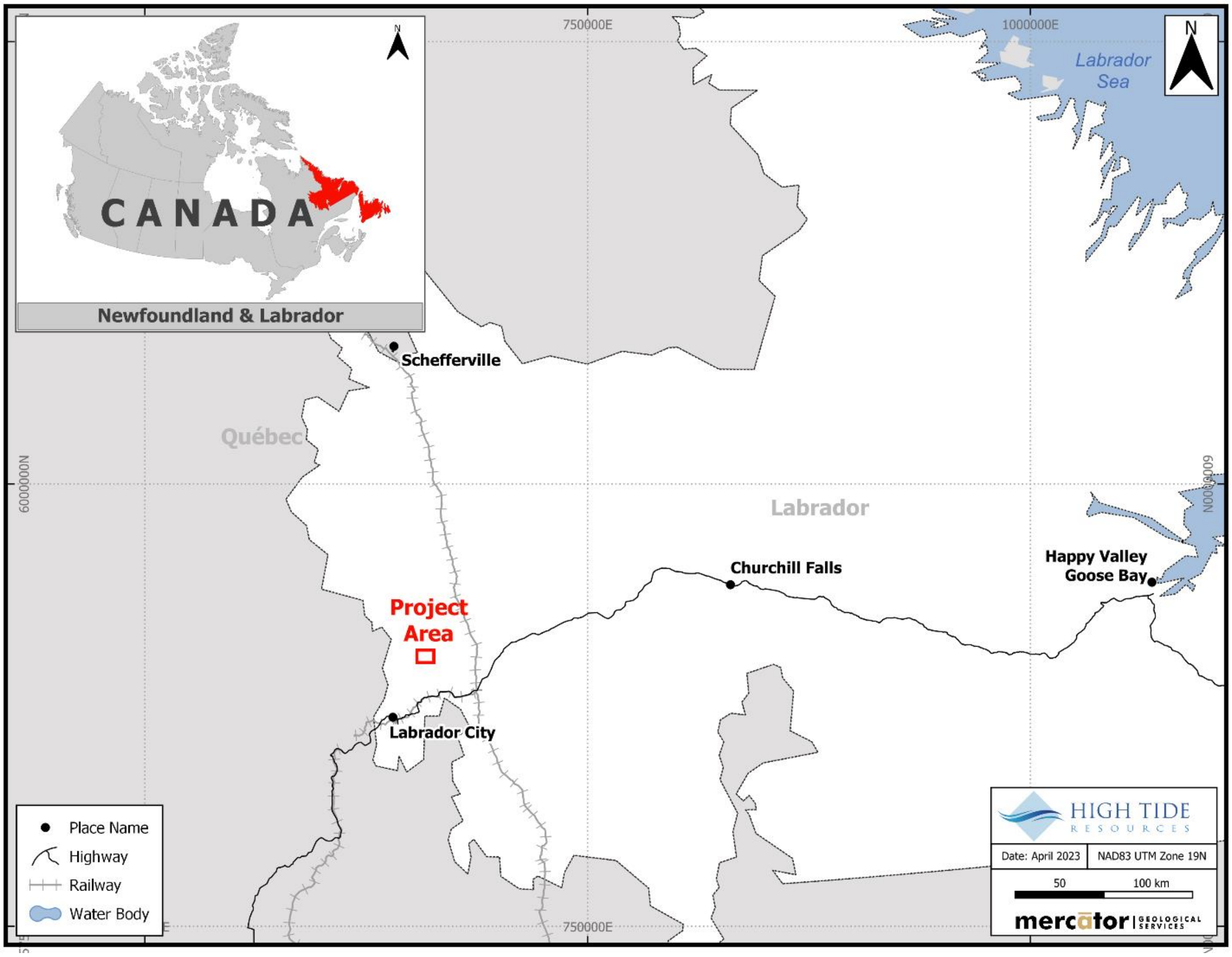
4.1 Property Location and Description

The Project is comprised of one mineral licence, 035223M, composed of 99 mineral claims (Table 4-1) and is 2,475.5 hectares in size. The mineral licence is located approximately 20 to 30 km northeast of Labrador City, NL. The Project is centred at map coordinates 651,500 m Easting and 5,897,500 m Northing (UTM NAD83 Zone 19N) within NTS Map Sheet 23G/02 (Figure 4-1). Prior to October 2022, the 99 claims were divided amongst four mineral claims (026753M, 027298M, 027299M and 027300M), but have been subsequently regrouped as a single license, 035223M.

Table 4-1: Mineral Licence and Claims Table for Labrador West Iron Project

Mineral Licence	NTS Map Sheet	Owner Name	Mineral Claims	Issue Date	Renewal Date	Area (Ha)
035223M	23G/02	High Tide Resources Corp.	99	2019-01-09	2024-01-09	2,475.5
		Totals:	**99**			**2,475.5**

Figure 4—1: Regional Map – Labrador West Iron Project



The DIET electronic database of mineral titles is accessible via their online “Mineral Rights Inquiry Portal” and confirms that all mineral claims comprising the Project as described above in Table 4-1 were, at the effective date, in good standing The QP confirms that payment of mineral licence transfer fees associated with the claims identified in Table 4-1 have been documented in the Mineral Licence Reports. No claims, liens or encumbrances, granting to any other person, firm or corporation any right to acquire the claims are registered with the DIET. The property has not been legally surveyed to date and there is no requirement to do so at this time.

4.2 Option Agreements and Royalties

High Tide acquired rights to the Project in August 2019 through an option agreement (the “Option Agreement”) with Altius Resources Inc. (Altius), a wholly owned subsidiary of Altius Minerals Corporation, granting the right to acquire 100% of the Goethite Bay Iron Project. The project was later renamed to the “Labrador West Iron Project”.

Pursuant to the Option Agreement, Altius granted High Tide an exclusive option (the “Option”) to acquire a 100% undivided interest in the 28 mineral claims that encompass Licence 026753M upon: (i) High Tide incurring exploration expenditures on the claims of at least $2,000,000 by December 31, 2021 (subject to one year extension due to COVID-19); (ii) the issuance of 19.9% of the issued and outstanding common shares of High Tide to Altius on a fully diluted basis calculated immediately following cumulative equity financings of no less than $5,000,000; and (iii) High Tide becoming a publicly listed company in Canada within 24 months from the execution date. Moreover, the Option Agreement provided that upon High Tide acquiring a 100% interest in these claims, it shall grant to Altius a 2.75% gross sales royalty (GSR) on all products and minerals comprising iron ore, and a 2.75% net smelter returns (NSR) royalty on all products and minerals other than iron ore, produced, removed, and recovered from the Project (collectively, the “Royalty”). On December 17, 2019, License 026753M was transferred to High Tide.

On September 9, 2019, High Tide announced it had acquired an additional 71 mineral claims (1,775 hectares) from Altius in Labrador West surrounding the property increasing the footprint of the Project to 2,475 hectares (99 claims). These 71 mineral claims comprised Licences 027298M, 027299M and 027300M and are subject to the same royalties, back-in rights or other payment obligations as part of the previously mentioned Altius agreement. On December 17, 2019, these three licences were transferred to High Tide.

On July 20, 2022, High Tide exercised the Option and acquired a 100 % interest in the Project subject to the Royalty in favour of Altius.

4.3 Surface Rights and Permitting

As the mineral licence holder, High Tide has the exclusive right to explore for designated minerals within the boundaries of the mineral claims comprising the Project, but this right does not reflect ownership of corresponding title to surface rights. High Tide has, however, secured Crown land access agreements with the Province of Newfoundland and Labrador to complete exploration and drilling on the Project.

Work requirements of the provincial government for mineral licences are defined by the Mineral Regulations under the Mineral Act (O.C. 96-299) and include a work expenditure of $200 CDN per claim in the first year, rising by $50 CDN per claim until year 5. The work requirement then rises to $600 CDN per claim per year from year 6 to year 10, $900 CDN per claim per year for years 11 to 15, and $1,200 CDN per claim per year for years 16 to 20. Recent amendments to the Mineral Regulations allow a mineral licence to be held for 30 years, with expenditures of $2,000 CDN per claim per year for years 21 to 25, and $2,500 CDN per claim per year for years 26 to 30. The type of acceptable work for assessment purposes is defined under the Mineral Regulations and includes most conventional exploration survey methods.

4.4 Permits or Agreements Required for Exploration Activities

Exploration permits, water usage permits, and wood harvesting permits were issued to High Tide by the Government of Newfoundland and Labrador (GNL) for the purposes of the 2020 and 2022 drilling program. The exploration permit was approved by a Regional Geologist with GNL, water withdrawal permit from a Water Management Engineer with GNL, and the wood harvesting permit was approved by a Regional Forest Ranger with GNL. These permits do not cover future exploration programs recommended in this Report.

4.5 Other Liability and Risk Factors

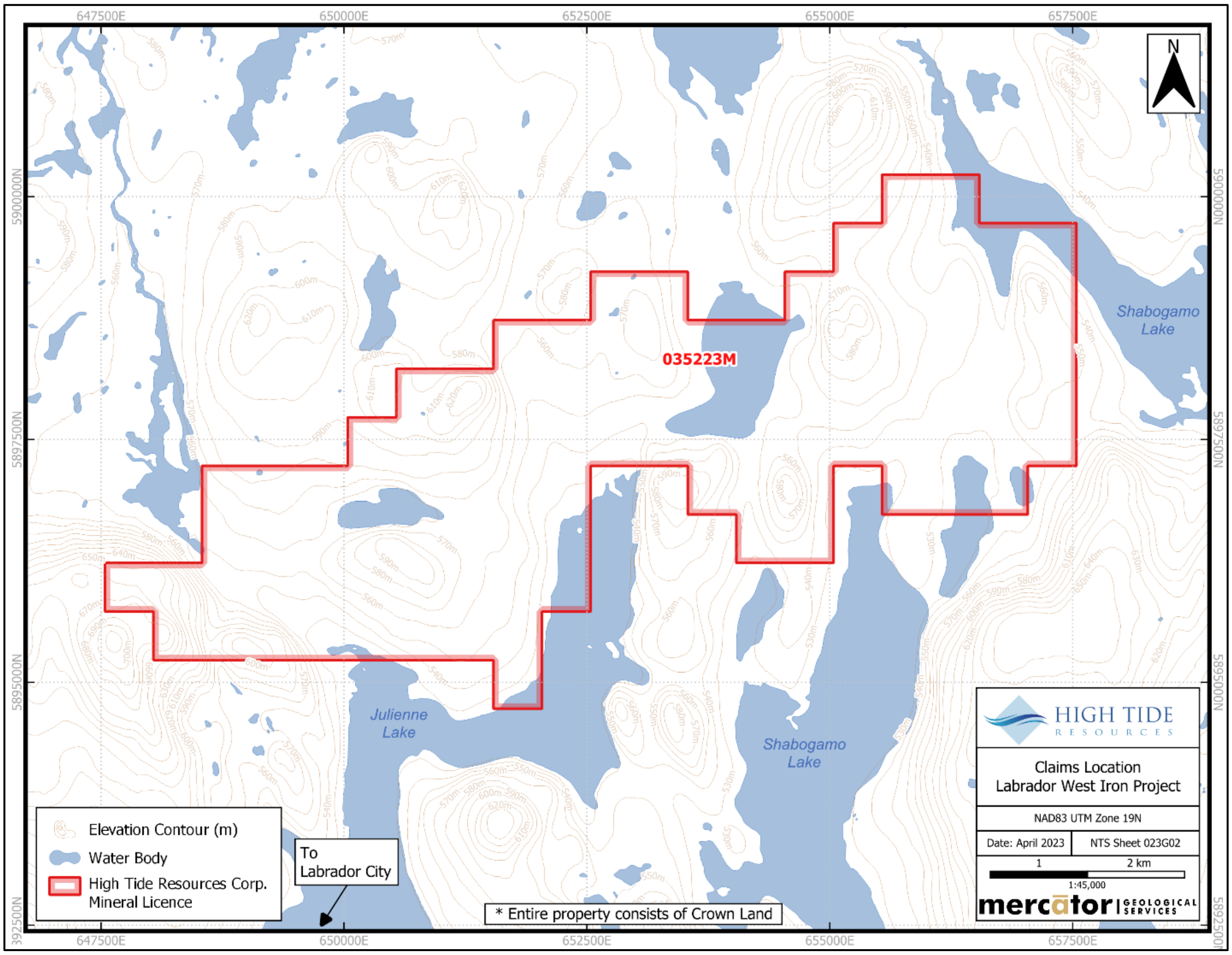
The QP is not aware of any environmental liabilities on the Project. High Tide will require additional permits to conduct recommended future exploration work programs on the Project. The QP is not aware of any other significant factors and risks that may affect access, title, or the right or ability to perform the recommended work program on the Project.

5.0 ACCESSIBILITY, CLIMATE, LOCAL RESOURCES, INFRASTRUCTURE AND PHYSIOGRAPHY

5.1 Accessibility

The Project is located in the southern Labrador Trough in western Labrador approximately 20 km northeast of Labrador City (pop. 7,720) (Figure 5-1). Labrador City is serviced by the Wabush Airport (YWK) and the airlines flying out of the airport. These include Provincial Airlines, Air Inuit and Pascan Aviation. Additionally, the Quebec North Shore and Labrador Railway provides freight rail transportation to and from Sept-Îles, Quebec. The Trans-Labrador Highway (Route 500) serves as the only road connection to Labrador City, connecting it with the rest of Labrador as well as the neighboring province of Quebec, becoming Quebec Route 389 at the provincial border. The mineral licenses are not accessible by road. Some of the claims can be reached by boat in the summer and snowmobile in the winter from Lake Shabogamo and Julienne Lake (Figure 5-1). During the 2020 and 2022 field seasons, Mercator staff and contractors lived in Labrador City and accessed the license area by daily helicopter flights from Wabush Airport.

Figure 5—1: Location Map – Labrador West Iron Project



5.2 Climate and Physiography

The Wabush and Labrador City region has a continental subarctic climate (Köppen: Dfc) with mild summers and severely cold winters. Precipitation is heavy year-round (although higher in summer) due to the strong Icelandic low to the east driving cold, moist and unstable air onto the region. Snowfall is very heavy for seven months each year and snow depths can reach as high as 218 centimetres. Temperatures range from highs of 19°C in the summer and lows of -29°C in the winter, with snow cover from October to May.

Topography on the Project is gentle, consisting of rolling hills and open valleys with abundant lakes and marshes. Elevations range from 1,700 to 2,500 m above sea level. The licenses are covered by a mixed forest consisting of spruce and alder of varying density with abundant open marshlands and swampy biomes in low lying areas with abundant standing water.

5.3 Local Resources and Infrastructure

The Project is located in a region of Labrador that is sparsely populated, with hotels, medical services, hardware stores, grocery stores, and gas stations being confined primarily to the towns of Labrador City and Wabush, collectively referred to as “Labrador West”. Labrador City forms the largest population center in this region of Labrador and supports a wide range of government, business, medical, educational, industrial and transportation services. Access to the regional electrical grid is possible along the highway corridors located near the Project but is lacking in more remote areas. Mainline rail facilities are accessible via the 418 km long Quebec North Shore and Labrador Railway which provides freight rail transportation to and from Sept-Îles, Quebec.

The extensive surface drainage systems present in the area including the Lake Shabogamo and Julienne Lake watersheds provide readily accessible potential water sources for incidental exploration use such as diamond drilling. They also provide good potential as higher volume sources of water such as those potentially required for future mining and milling operations.

Exploration staff and consultants, as well as forestry, heavy equipment and drilling contractors can be readily sourced from within Newfoundland and Labrador and surrounding provinces such as Quebec, New Brunswick, and Nova Scotia. Iron mining operations are the dominant employment in the region with IOC and ArcelorMittal being the primary employers in the area. The local rural and urban economies provide a large base of skilled trades, professional, and service sector support that can be readily accessed for exploration and resource development purposes.

6.0 HISTORY

6.1 Pre-2007

The Project is located in close proximity to IOC Carol Lake iron mining operations within the Sokoman Formation. IOC is a joint venture between Rio Tinto (58.7%), Mitsubishi (26.2%) and the Labrador Iron Ore Royalty Income Corporation (15.1%). Outcrops surrounding this region have been prospected, mapped, and drilled since workers first targeted the area for iron ore deposits in the late 1940's (Neil, 2000). Outside of the current iron producing areas in Labrador City only very broad geologic mapping has been conducted (James & van Gool, 1997; Wardle, 1982, 1997).

Work by IOC on their past claims, in areas now found within the Project area near Lake Shabogamo and Lake Julienne, are described in annual assessment reports filed by respective firms with the GNL and includes reconnaissance mapping, sampling, drilling, magnetic, and gravity surveys. Adjacent to the Project's mineral licences are holes drilled in the 1950's and early 2000's by IOC.

6.2 Rio Tinto Exploration Canada Inc. - 2007 to 2014

Rio Tinto staked a large area in the Labrador West area in late 2007 including claims currently held by High Tide in the Project area, that were known as the Goethite Bay Iron Project. In 2008, Rio Tinto conducted gravity ground surveys, LiDAR airborne surveys, and prospecting activities. Work was reduced in 2009 to a month of prospecting and outcrop sampling.

In 2010, field work resumed and consisted of diamond drilling, gravity ground surveys, prospecting and outcrop sampling. Additional staking was conducted in late 2010 and in 2011 field work resumed with diamond drilling, gravity ground surveys, airborne EM survey, and prospecting.

A magnetic and electromagnetic airborne RESOLVE survey was undertaken in November 2011 by Fugro Airborne Surveys. In spring 2012, a high-sensitivity HeliFALCON^{TM} Airborne Gravity Gradiometer (AGG) survey was completed in the area by Fugro Airborne Surveys. In June and July 2012, additional LiDAR data processing was completed from airborne surveys undertaken in 2008, 2009 and 2010 by Perron Hudon Belanger Lasermap. Additional diamond drilling including asbestos testing was also undertaken during this time and metallurgical test results from 2010 and 2011 drill core composites were submitted for metallurgical analysis in Sept 2012.

Further details on the geological mapping and prospecting, remote sensing, and airborne and ground geophysics programs undertaken by Rio Tinto between 2007-2012 can be found in government assessment reports for the respective years.

Rio Tinto completed a total of 19 diamond drill holes on the Project between 2010 and 2012 for a total of 4,228 m. Details on the Rio Tinto drilling programs can be found in Section 10.2.

In September 2012, Rio Tinto sent 10 composite samples from drill holes 11LB0026, 11LB0027, 11LB0029 and 11LB0030 to SGS Laboratories in Lakefield for metallurgical testing. Details on the Rio Tinto metallurgical program can be found in Section 13.

In 2018, Rio Tinto dropped the mineral claims in the Project area, which were subsequently staked by Altius. Altius did not complete any exploration activities prior to optioning the Project to High Tide in August of 2019.

6.3 Historical Mineral Resources and Past Production

To date no historical mineral resource has been completed for the Project. No historical mining activity of any sort has taken place within the area covered by the Project claims.

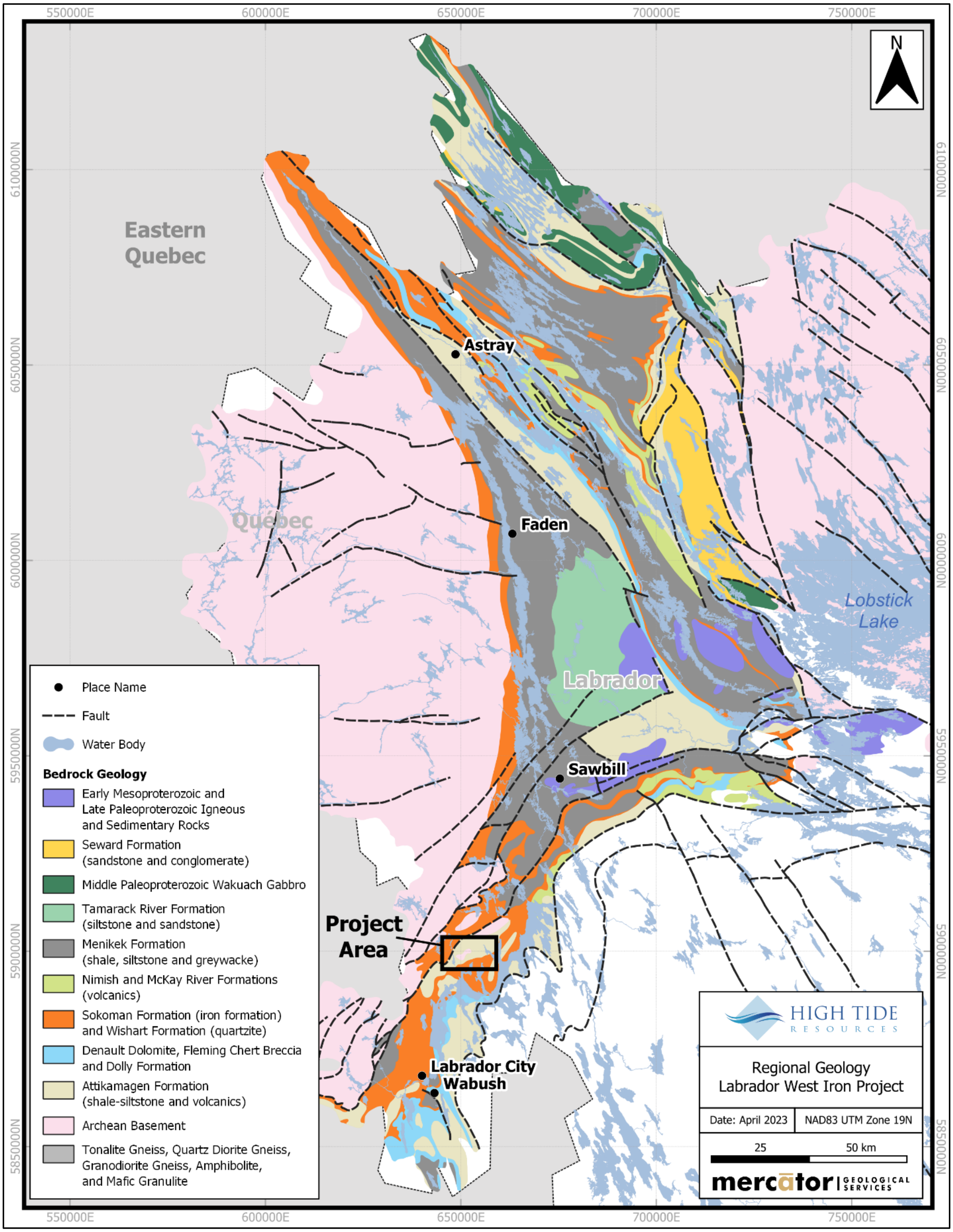
7.0 GEOLOGICAL SETTING AND MINERALIZATION

7.1 Regional Geology

The Labrador Trough consists of Paleoproterozoic (2.17 to 1.87 Ga) sedimentary and volcanic rocks, which extend along the eastern margin of the Archean Superior Craton to Ungava Bay. The Labrador Trough forms the western part of a larger orogenic belt called the New Québec Orogen. In southwestern Labrador, the Labrador Trough extends into the younger Grenville Province, where the sedimentary rocks were deformed and metamorphosed ca. 1.0 Ga. The western boundary of the Labrador Trough is the basal unconformity between Paleoproterozoic sedimentary rocks and the Archean basement. To the east, it is bounded by allochthonous deep water sedimentary and volcanic rocks, possibly derived from an oceanic realm. The sedimentary sequence of the Labrador Trough, termed the Kaniapiskau Supergroup, consists of the Knob Lake Group in the western part of the Trough including the Project area. The Kaniapiskau Supergroup is interpreted to include a lower rift-related sequence and an upper transgressive sequence that progresses from shelf sediments at the base through deep water turbidites and into shallow marine and terrestrial rocks at the top.

Iron deposits in the Labrador Trough are hosted in the Sokoman Formation (within the Knob Lake Group), which sits toward the top of the shelf sequence, above a thick package of shale, dolostones, and siliciclastic rocks (Figure 7-1). The Sokoman Formation consists of a 30–170 m thick sequence of cherty iron-rich sediments and is continuous for 250 km from Labrador City to Schefferville; it also continues into Québec in both directions and is one of the most extensive iron formations on Earth. North of the Grenville Province, the stratigraphic sequence is largely intact, and the position and distribution of the Sokoman Formation is very predictable. Parts of this area experienced low-grade (greenschist facies) metamorphism and open to tight folding, but in the western foreland, the rocks are gently dipping and essentially undisturbed. In the southern part of the Labrador Trough, the rocks are highly metamorphosed and complexly folded, but the essential stratigraphy of the Kaniapiskau Supergroup remains discernable, albeit structurally disrupted. The productive unit in this area is locally known as the Wabush Iron Formation, but it is directly equivalent to the Sokoman Formation to the north.

Figure 7—1: Geological Map of the Labrador Trough



Source: Wardle, R J et al. Government of Newfoundland and Labrador, Department of Mines and Energy, Geological Survey, Open File LAB/1226 Version 1.0, 1997.

7.2 Property Geology

In the Project area, the Sokoman Formation is informally divided into three iron formation lithofacies or facies types characterised by different mineralogy and textures. These lithofacies are not exclusive and there can be some overlap in mineral assemblages. Iron formations present in the Project area are known to be very heterogeneous and bands with very different composition and mineralogy can occur at the sub-millimetre scale.

Oxide Facies Iron Formation

The oxide facies (Figure 7-2) is dominated by iron oxide iron minerals such as hematite and magnetite plus quartz (chert). There may be accessory carbonates (calcite or dolomite), silicates, and, rarely, manganese oxides or carbonates. Hematite and magnetite have a tendency to be easily recovered and beneficiated to high purity concentrates and are therefore the most desirable iron mineralogy. Manganese is an undesirable element, and its mineral deportment may have major impacts on metallurgy. In the southern Labrador Trough, original manganese oxides may have reacted with quartz to form rhodonite or carbonates to form kutnahorite during high-grade regional metamorphism.

Figure 7—2: Core Photo of Oxide Facies from Project Drill Hole 22LB0060 (25.42 to 36.78 m)

(Mercator, 2023)

Carbonate Facies Iron Formation

The carbonate facies iron formation consists of quartz (chert) and iron-rich carbonate. In the project area, the carbonate is of variable grainsize and light to dark grey in colour and commonly weathers to a distinctive reddish-brown colour. Composition appears to vary from almost pure siderite to ferroan dolomite. Quartz is generally white and recrystallised but in places may be cherty and almost black on freshly broken surfaces. Rocks are generally thinly-banded, with layers usually ranging from a few millimetres to several centimetres. Thicker banding appears to be associated with proximity to oxide facies iron formation and in places carbonate and quartz-rich bands may be up to tens of centimetres thick. Some of the fine banding may be developed by transposition, especially in high-strain zones, but some is related to relict bedding and it can be difficult to distinguish between the primary and tectonic fabrics in small outcrops.

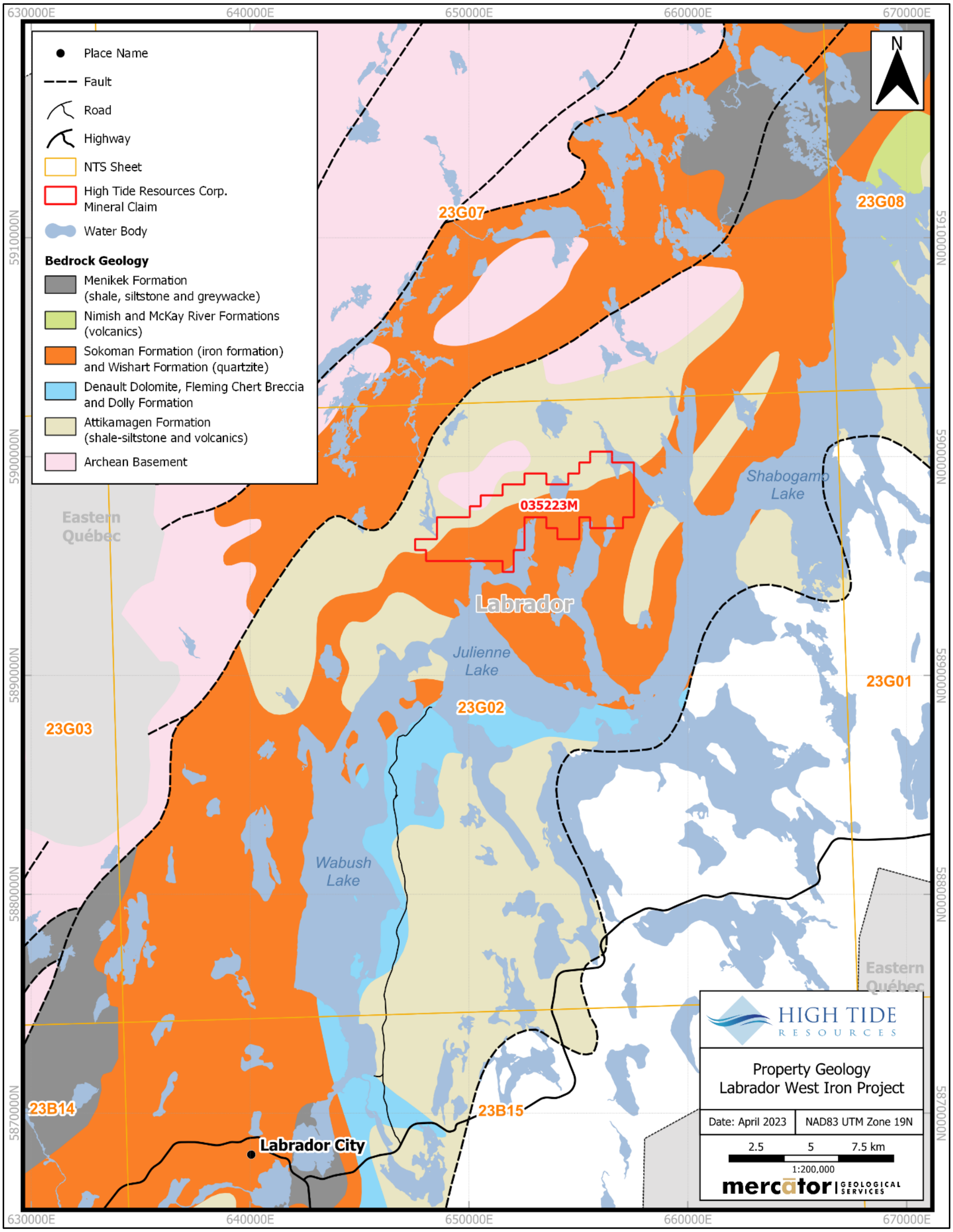
As a chemically intermediate type, carbonate iron-formations may grade into, or be interbedded with each of the other iron formation facies. The usual transitions are to complex silicate-magnetite-carbonate-quartz rocks, interpreted to represent original quiet-water, more micritic environments. Reaction of carbonates and silicate species to fibrous tremolite and other silicate species (quartz+pyroxene+amphibole+garnet) appears to occur with increasing grade of metamorphism, especially in original, finely laminated lithofacies that have been more highly deformed. However, there are enclaves where quartz-carbonate assemblages are preserved, presumably where CO_2 could not escape from the system.

Silicate Facies

In the project area, silicate-rich iron formation facies are typically thin- to medium-banded with quartz-rich bands from millimetres up to several centimetres thick. Outcrops vary in colour from brown to grey. Fibrous amphiboles such as grunerite are common in some areas. Elongate silicate grains often define pronounced stretching lineation in high strain zones. Magnetite content is highly variable and may occur locally in semi-massive bands up to several centimetres thick. Silicate facies lithology codes were used for any metre scale rock units where silicate and carbonate appear to comprise greater than 10 % of the interval.

In southwestern Labrador, including the Project area, the Labrador Trough extends into the younger Grenville Province, where the sedimentary rocks were highly metamorphosed and complexly folded during the Trans-Hudsonian and Grenvillian orogenies. Although metamorphosed and deformed, the essential stratigraphy of the sedimentary rocks remains discernable in the Labrador City/Wabush area (Figure 7-3).

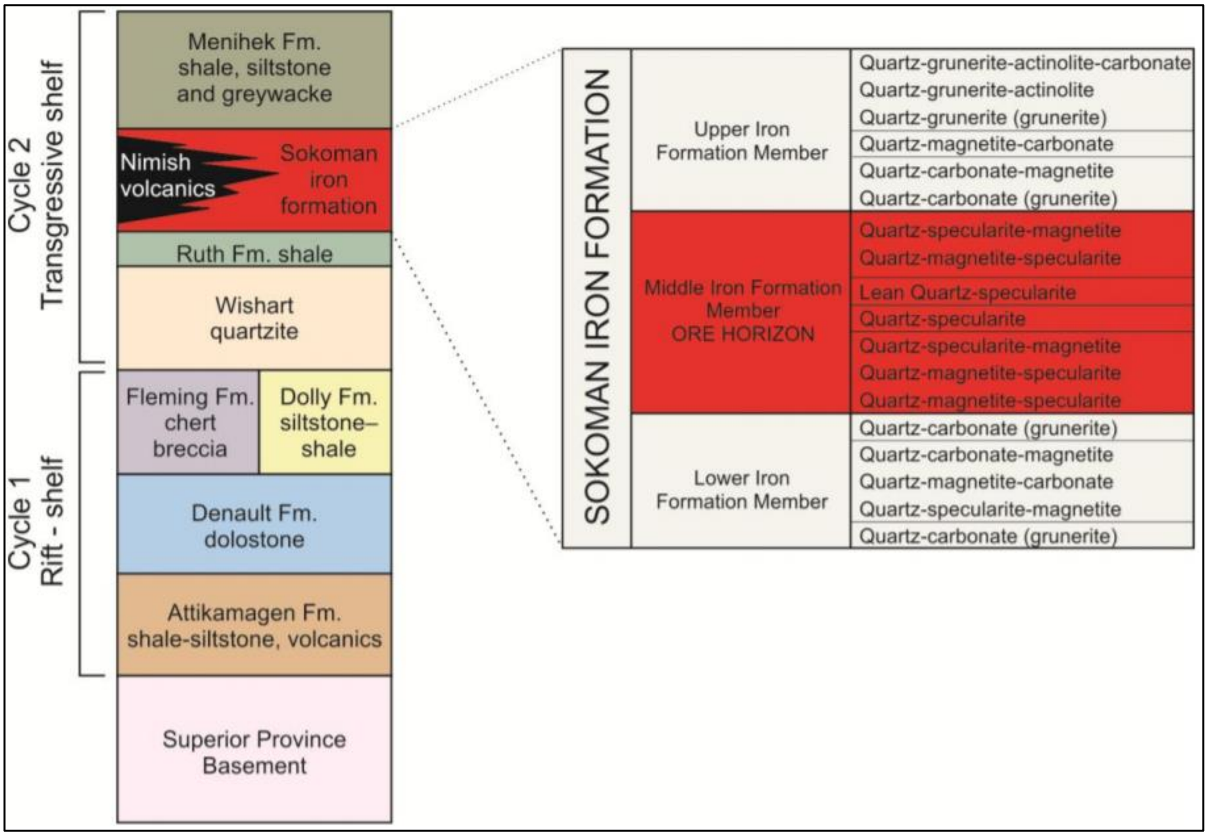
Figure 7—3: Property Geology Map for the Project



Source: Wardle, R J et al. Government of Newfoundland and Labrador, Department of Mines and Energy, Geological Survey, Open File LAB/1226 Version 1.0, 1997.

The Sokoman Formation falls within the Kaniapiskau Supergroup and has been subdivided into three members (Figure 7-4). The lower part of the Sokoman Formation (Lower Iron Formation) consists largely of a carbonate-silicate facies with some magnetite. This grades upward into an oxide facies with abundant coarse-grained hematite and/or magnetite and sugary textured quartz (Middle Iron Formation). These oxide-rich beds are the most important economically, with iron-rich layers and lenses commonly containing more than 50% hematite and magnetite. The upper part of the Sokoman Formation (Upper Iron Formation) is a carbonate-silicate facies with minor oxides. The Sokoman Formation is interbedded in places with mafic volcanic rocks of the Nimish Formation and is underlain by quartzites of the Wishart. The overlying rocks (Menihek Formation) consist largely of black shales and slates that record a sudden deepening of the basin. The iron rich units on property are thought to sit mostly within the Middle Sokoman Formation with most holes ending in the Wishart Formation quartzites.

Figure 7—4: Stratigraphy of the Kaniapiskau Supergroup and Sokoman Formation (after Zajac, 1974)



7.3 Regional Structure and Metamorphism

Two major episodes of deformation are recognized in the Labrador Trough; the Hudsonian Orogeny (~1,750 to 1,800 Ma) and the major deformation and thermal re-working events of the Grenvillian Orogeny (~1,200 to 1,100 Ma). In the northern part of the Labrador Trough (Schefferville northwards), regional NW-trending folds and thrusts are ascribed to the early Hudsonian Orogeny with less impact from the Grenvillian Orogeny.

The Project is located within the Gagnon Terrane, a Grenvillian foreland-directed, metamorphic fold-thrust belt that carried Paleoproterozoic metasediments and part of their Archean crystalline basement in a generally north-northwest-directed thrust movement onto the Superior province foreland. The most obvious structural elements are a major series of NE-striking, NW-verging folds and thrusts, resulting from complex and polyphase deformation and metamorphism, with complex local structural regimes within the developing stack of brittle-ductile thrust sheets. It is not clear whether deformation shifted progressively with time or was pulsed in discrete episodes, but at least three major deformation phases can be recognized. Overall, the deformation is considered synkinematic with major metamorphism and granitic intrusions that increases in intensity to the south and east.

8.0 DEPOSIT TYPES

The iron formation within the Labrador Trough and Project area is of the Lake Superior-type. Lake Superior-type iron formations consist of banded sedimentary rock composed principally of bands of iron oxides, predominantly magnetite and hematite, within quartz (chert)-rich rock interbedded with variable amounts of silicate, carbonate and sulphide lithofacies iron formation. Such iron formations have been the principal sources of iron throughout the world (Gross, 1996). Table 8-1 indicates the general characteristics of the Lake Superior-type iron deposit model.

Table 8-1: Deposit Model for Lake Superior-Type Iron Formation (after Eckstrand, 1984)

Criteria	Description
Deposit Examples: Canadian and Foreign	Knob Lake, Wabush Lake, and Mont-Wright areas, Quebec and Newfoundland and Labrador, Canada Mesabi Range, Minnesota, USA Marquette Range, Michigan, USA Minas Gerais area, Brazil
Importance	Canada: the major source of iron World: the major source of iron
Typical Grade, Tonnage	Up to billions of tonnes, at grades ranging from 15 to 45% Fe, and averaging 30% Fe.
Geological Setting	Continental shelves and slopes possibly contemporaneous with offshore volcanic ridges. Principal development in Middle Precambrian shelf sequences marginal to Archean cratons.
Host Rocks or Mineralized Rocks	Iron formations consist mainly of iron and silica-rich beds; common varieties are taconite, itabirite, banded hematite quartzite, and jaspilite; composed of oxide, silicate and carbonate facies and may also include sulphide facies. Commonly intercalated with other shelf sediments: black.
Associated Rocks	Bedded chert and chert breccia, dolomite, stromatolitic dolomite and chert, black shale, argillite, siltstone, quartzite, conglomerate, red beds, tuff, lava, volcaniclastic rocks; metamorphic equivalents of the preceding rock types.
Form of Deposit, Distribution of Iron Minerals	Mineable deposits are sedimentary beds with cumulative thicknesses typically from 30 m to 150 m and strike lengths of several km. In many deposits, repetition of beds caused by isoclinal folding or thrust faulting has produced widths that are economically mineable. Iron mineral distribution is largely determined by primary sedimentary deposition. Granular and oolitic textures are common.
Minerals: Principal Iron Minerals - *Associated* Minerals	Magnetite, hematite, goethite, pyrolusite, manganite, hollandite. Finely laminated chert, quartz, Fe-silicates, Fe-carbonates and Fe-sulphides (primary) or metamorphic derivatives of the preceding rock types.
Age, Host Rocks	Precambrian, predominantly early Proterozoic (2.4 to 1.9 Ga).
Age, Iron Mineralization	Syngenetic, same age as host rocks. In Canada, major deformation during Hudsonian and, in places Grenvillian orogenies produced mineable thicknesses of iron formation.

Criteria	Description
Genetic Model	A preferred model invokes chemical, colloidal and possibly biochemical precipitates of iron and silica in euxinic to oxidizing environments, derived from hydrothermal effusive sources related to fracture systems and offshore volcanic activity. Deposition may be distal from effusive centers and hot spring activity. Other models derive silica and iron from deeply weathered land masses, or by leaching from euxinic sediments. Sedimentary reworking of beds is common. The greater development of Lake Superior-type iron formation in early Proterozoic time has been considered by some to be related to increased atmospheric oxygen content, resulting from biological evolution.
Mineralization Controls, Guides to Exploration	Distribution of iron formation is reasonably well known from aeromagnetic surveys. Oxide facies is the most economically important of the iron formation facies. Thick primary sections of iron formation are desirable. Repetition of favorable beds by folding or faulting may be an essential factor in generating widths that are mineable (30 to 150 m). Metamorphism increases grain size, improves metallurgical recovery. Metamorphic mineral assemblages reflect the mineralogy of primary sedimentary facies. Basin analysis and sedimentation modeling indicate controls for facies development and help define location and distribution of different iron formation facies.

All iron deposits in the Labrador Trough formed as chemical sediments that were lithified and variably affected by alteration and metamorphism. This had important effects upon grade, mineralogy and grain size, which may impact the mineability. In addition, faulting and folding led to repetition of sequences in many areas, which greatly increases the surface extent and stratigraphic thicknesses of the deposits.

The three main types of iron deposits present in the Labrador Trough include:

Taconites: These are present throughout the Labrador Trough and are comprised of fine-grained, unmetamorphosed or weakly metamorphosed sedimentary iron formations (15 to 30% Fe), with magnetite as the dominant iron mineral. None are presently mined in the Labrador Trough, although they are important sources for iron mineralization elsewhere (e.g., Minnesota).

Meta-taconites: These are present in the southern part of the Labrador Trough, especially in the Labrador City-Wabush area, including within the Project. They have been moderately to strongly metamorphosed during the Grenville orogeny at ca. 1.0 Ga, and are coarse grained with specular hematite, granular magnetite and friable quartz. The grade of these deposits is generally higher than unmetamorphosed taconites (up to 41% Fe). They are easily beneficiated into iron concentrates (approximately 65% Fe), which are ideal for pellet production.

Direct Shipping Ores (DSO): These are secondary iron deposits containing >50% Fe that formed from the enrichment of primary taconites. Such iron deposits require minimal beneficiation and have very low mining costs. Two main types of DSO deposits have been described in the Labrador Trough. Soft, friable, fine-grained, variably porous deposits occur mostly in the Schefferville District of Quebec and may be related to deep groundwater circulation and supergene enrichment associated with Mesozoic (Cretaceous) tropical climates. Specifically, silica and carbonate were leached from the deposit, leaving a high residual iron content. Hard DSO deposits occur in several locations, including Sawyer Lake and Astray Lake southeast of Schefferville, Quebec.

The iron deposits in the Grenville part of the Labrador Trough in the vicinity of Wabush and Mont-Wright that have been developed through mines operated by IOC (Rio Tinto), ArcelorMittal, and Cliffs Natural Resources (Cliffs) (Wabush Mine) are meta-taconites. The Bloom Lake iron deposit being mined by Champion is also a meta-taconite. The iron formation within the Project area is similarly Lake Superior-type meta-taconite.

For non-supergene-enriched iron formation to be mined economically, iron oxide content must be sufficiently high, but the iron oxides must also be amenable to concentration (beneficiation). The concentrates produced must also be low in deleterious elements such as silica, aluminum, phosphorus, manganese, sulphur and alkalis. Additionally, for efficient bulk mining, the undesirable silicate and carbonate lithofacies and other rock types interbedded within the iron formation must be sufficiently segregated from the iron oxides at scales appropriate for exclusion through the mining method being applied. Folding can be important for structurally repeating iron formation units. This is an important contributing factor at various locations within the currently producing sections of the Labrador Trough, where thick sections comprised of economic concentrations of iron have been the direct result.

9.0 EXPLORATION

High Tide has completed two diamond drill programs between 2020 and 2022 on the Project for a total of 11 drill holes totalling 3,299 m.

High Tide completed a diamond drilling program from July 26 to September 3, 2020. The diamond drilling program was supervised by Mercator and comprised of four drill holes totalling 1,000 m. The diamond drilling program was designed to test the lithological and grade continuity between several widely spaced historical Rio Tinto diamond drilling holes from 2010 to 2012. Refer to Section 10.3.1 for further details on the 2020 diamond drilling program.

Mercator Geologist, Alan Phillipe, also spent two days in September 2020 prospecting in the vicinity of historical drill hole 10LB0011 on the eastern half of the property. In total, eight outcrop samples were collected, including three samples of iron formation. Other samples consisted of mafic intrusive and metasediments. The three iron formation samples were submitted to Actlabs for whole-rock XRF analysis. The most significant result was 24.0 % FeT in an oxide facies iron formation. Table 9-1 lists the sample numbers, coordinates, description and Fe assay results.

Table 9-1: Outcrop Locations, Descriptions and FeT Assay Results

Sample	Easting (NAD83 Z19N)	Northing (NAD83 Z19N)	Lithology	Description	Fe2O3 (T) (wt.%)	FeT (wt. %)
A1064238	656189	5898376	MAFIC INTRUSIVE	dark grey; mafic intrusive - no sulphides - weakly magnetic	NA	NA
A1064239	656186	5898386	METASEDIMENTS	hornfels sediment with strong platy cleavage; weak oxidation on planes	NA	NA
A1064240	656179	5898390	SCHIST	quartz rich schist; detrital origin; cracked quartz; 95% quartz; 5% calcite cement	NA	NA
A1064241	656001	5898359	MAFIC INTRUSIVE	grey/white; mafic intrusive - no sulphides - 50% plagioclase	NA	NA
A1064242	655998	5898359	OXIDE FACIES IRON FORMATION	moderately magnetic; mostly fine-grained quartz with 5-10% pervasive magnetite	34.32	24.00
A1064243	655981	5898367	CARBONATE FACIES IRON FORMATION	Quartz-carbonate facies IF; 10% carbonate; 80% quartz - 10% iron oxide	NA	NA
A1064244	655967	5898353	SCHIST	Quartz-Biotite Schist? Silicate IF?	12.71	8.89
A1064246	655971	5898322	IRON FORMATION	moderately heavy SG	19.16	13.40

NA = Not Analyzed; Fe_2O_3 (T) = Total iron calculated as trivalent iron oxide; Fe (T) is calculated from reported Fe_2O_3 (T)

High Tide conducted a second diamond drilling program from April 22 to June 30, 2022. The diamond drilling program was supervised by Mercator and comprised of seven drill holes totalling 2,299 m. The diamond drilling program was designed to further test the lithological and grade continuity between several widely spaced historical Rio Tinto diamond drilling holes from 2010 to 2012 and to provide drill hole spacing to define an Inferred Mineral Resource. Refer to Section 10.3.2 for further details on the 2022 diamond drilling program.

10.0 DRILLING

10.1 Overview

Rio Tinto has completed three diamond drilling programs in 2010, 2011 and 2012 and High Tide has completed two diamond drilling programs in 2020 and 2022, for a total of 30 drill holes and 7,727 m completed on the property. Three of the 30 holes were abandoned for technical reasons during the Rio Tinto drilling campaigns and were subsequently re-drilled.

10.2 Rio Tinto 2010 to 2012 Diamond Drilling Programs

In total, Rio Tinto drilled 19 diamond drill holes and 4,428 m on the Project between 2010 and 2012 (Figure 10-1 and Table 10-1). Fifteen of these drill holes occur in the area the deposit area deposit and were included in the Mineral Resource estimate. Significant intercepts of oxide-facies iron formation are listed in Table 10-2.

Table 10-1: Rio Tinto Diamond Drill Holes Completed on the Project (2010-2012)

Hole ID	Year Drilled	Easting (m)	Northing (m)	Hole Length (m)	Hole Azimuth	Hole Inclination
10LB0001	2010	651521	5896478	150.3	55	-60
10LB0002	2010	651026	5896790	31	30	-70
10LB0003	2010	651026	5896790	90.3	30	-60
10LB0011	2010	655937	5898313	201.3	303	-70
10LB0012	2010	649576	5895942	252	50	-80
11LB0024	2011	648662	5896560	165	307	-80
11LB0026	2011	649880	5895705	255	350	-80
11LB0027	2011	650837	5895342	348	10	-80
11LB0029	2011	650697	5895797	306.25	355	-80
11LB0030	2011	651310	5895721	255	6	-80
11LB0031	2011	650262	5896177	207	5	-80
11LB0032	2011	651892	5896004	446	357	-80
11LB0038	2011	650587	5897178	294	15	-80
12LB0045	2012	650451	5895554	336.77	3.4	-85
12LB0048	2012	651668	5895008	348	19.3	-85.8
12LB0051	2012	649082	5895328	309	14.5	-80
12LB0053	2012	651248	5896290	31.03	338	-80
12LB0054	2012	651248	5896290	36.3	338	-70
12LB0055	2012	651250	5896291	366	340.24	-80
Total of 19 drill holes			**Total m drilled =**	**4,428.25**		

Note: All collar coordinates in UTM NAD83 Zone 19

Figure 10—1: Drill Hole Location of Rio Tinto Diamond Drilling Programs on the Project

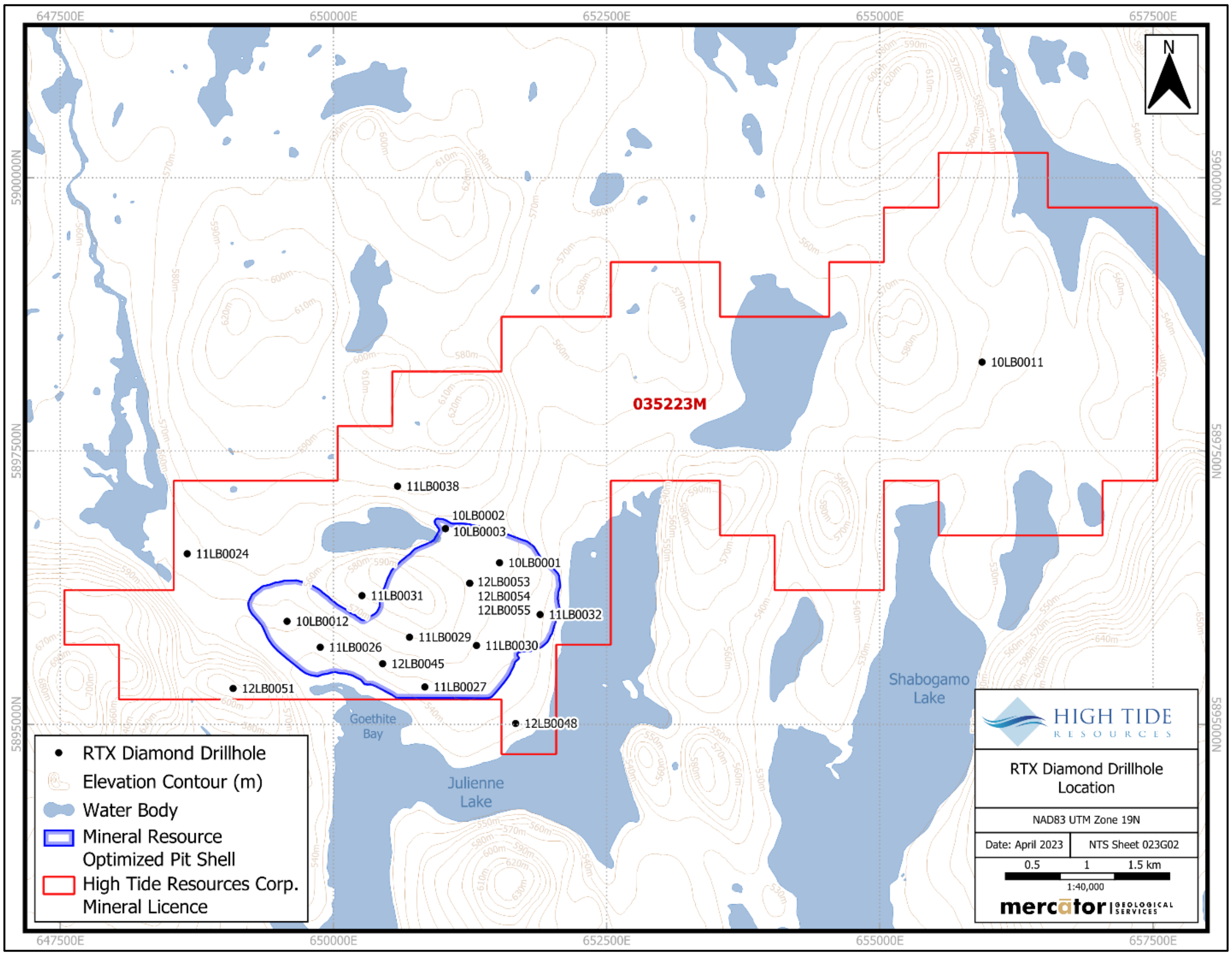


Table 10-2: 2010-12 Significant Intercepts of Oxide-Facies Iron Formation

Hole ID	Dominant Iron Phase	From (m)	To (m)	Length (m)	FeT (%)
10LB0001	Hematite-dominated	16.17	24.63	8.46	25.43
	Hematite-dominated	33.92	43.76	9.84	28.04
	Hematite-dominated	68.60	76.65	8.05	27.13
	Hematite-dominated	84.63	90.93	6.30	26.00
	Hematite-dominated	121.61	126.70	5.09	26.98
10LB0003	Hematite-dominated	26.00	42.17	16.17	30.83
10LB0011	Magnetite-dominated	12.76	43.00	30.24	27.48
10LB0011	Magnetite-dominated	97.60	163.56	65.96	25.74
10LB0012	Hematite-dominated	36.00	45.00	9.00	31.14
	Hematite-dominated	69.00	96.00	27.00	31.13
	Hematite-dominated	107.50	183.30	75.80	30.18
	Hematite-dominated	196.00	220.10	24.10	31.04
12LB0026	Hematite-dominated	76.06	94.73	18.67	33.41
	Hematite-dominated	127.11	142.72	15.61	29.56
	Hematite-dominated	176.31	195.37	19.06	29.78
12LB0027	Hematite-dominated	60.00	180.66	120.66	32.02
	Hematite-dominated	195.45	213.58	18.13	33.41
	Hematite-dominated	243.00	336.00	93.00	31.62
11LB0029	Hematite-dominated	72.00	147.00	75.00	28.81
12LB0030	Hematite-dominated	92.85	131.24	38.39	27.01
	Hematite-dominated	142.10	161.45	19.35	25.76
	Hematite-dominated	176.00	197.87	21.87	29.54
12LB0031	Hematite-dominated	84.00	120.00	36.00	33.15
12LB0032	Magnetite-dominated	110.10	142.34	32.24	27.47
	Magnetite-dominated	242.10	258.00	15.90	26.89
	Magnetite-dominated	343.34	358.13	14.79	26.30
	Magnetite-dominated	372.12	395.15	23.03	26.42
12LB0038	Hematite-dominated	10.04	84.05	74.01	26.98
	Hematite-dominated	97.41	110.01	12.60	30.38
	Hematite-dominated	184.03	200.00	15.97	30.34
12LB0045	Hematite-dominated	9.88	20.18	10.30	32.06
	Hematite-dominated	70.00	114.00	44.00	30.88
	Hematite-dominated	159.23	240.00	80.77	28.93
12LB0048	Hematite-dominated	33.00	50.00	17.00	25.49
12LB0055	Hematite-dominated	54.40	121.40	67.00	30.16
	Hematite-dominated	138.97	169.00	30.03	25.93
	Hematite-dominated	180.00	223.41	43.41	29.58
	Hematite-dominated	281.40	295.53	14.13	29.56

Note: Intercepts are reported as downhole lengths and true widths are approximately 90% of the reported length. Intercepts reflect a minimum grade of 15% FeT within predominantly oxide facies with a maximum accepted dilution of 6 m downhole.

10.2.1 Rio Tinto 2010 Diamond Drilling Program

Rio Tinto completed a total of four diamond drill holes for 725 m on the Project between July to September 2010 using a Zintex, helicopter portable, diamond core drill operated by Team Drilling of Saskatoon (Table 10-1 and Figure 10-1). The drill was mobilized using an Astar 350BA helicopter contracted from Canadian Helicopters based in Quebec. All core was NQ in diameter and placed in 1.5m long wooden core boxes and transported to Labrador City via helicopter to be processed and logged by Rio Tinto core technicians and geologists using a company unique coding scheme for iron formation subunits in core (Broadbent, 2010) (Table 10-3). Drill holes were surveyed using a downhole Reflex tool. All core was oriented using the ACT tool operated by the drill crew, however only about 30% of the core length had orientation marks that were deemed correct and useable. Extensive geotechnical, geological, and geophysical data was collected from each drill core including:

- Geotechnical: Total Core Recovery, Solid Core Recovery, and Longest Piece
- Geophysical: Magnetic Susceptibility
- Geological: Lithology, Structures, Mineralization
- Physical: Density

All data was entered directly into an AcQuire database at the time of collection using the coding scheme applied to each lithological unit (Table 10-3).

Table 10-3: Rio Tinto Coding Scheme for Recording Iron Formation Subunits in Core (Broadbent, 2010)

Formation	Code	Description
Shabogamo	Sha	Shabogamo Gabbro - post Sokoman dolerite composition intrusive (but may include some syn-Sokoman volcanics)
Menihek	Men	Menihek Formation. Grey or black carbonaceous metasediments
Sokoman IF - undifferentiated	Sok	Undifferentiated iron formation from legacy sources, compiled from 1:100,000 scale map localities with structural observations.
Sokoman IF - carbonate facies	CARB	dominantly qtz-siderite mineralogy, Fe oxides < 10%, carbonate > 20%, silicates < 10%, non-magnetic (Mag Susc < 100x10-5SI)
Sokoman IF - carbonate facies	MTCA	dominantly qtz-carbonate-magnetite mineralogy, Fe Oxides >20%, magnetic (Mag Susc >20000)
Sokoman IF - carbonate facies	CAMT	dominantly qtz-carbonate-magnetite mineralogy, Fe Oxides

Formation	Code	Description
		<20%, weakly magnetic (Mag Susc < 20000)
Sokoman IF - carbonate facies	CAHM	dominantly qtz-carbonate-hematite mineralogy, Fe Oxides <20%, poorly to non- magnetic (Mag Susc < 2000)
Sokoman IF - oxide facies	HMOX	dominantly qtz-hematite>magnetite(martite)-carbonate mineralogy, Fe oxides > 20%, carbonate<20%, poorly to non-magnetic (Mag Susc < 2000)
Sokoman IF - oxide facies	MHOX	Mixed qtz-hematite-magnetite(martite)-carbonate mineralogy, Fe oxides > 20%, carbonate<20%, moderately magnetic (Mag Susc 2-20000)
Sokoman IF - oxide facies	MTOX	dominantly qtz-magnetite>hematite-carbonate mineralogy, Fe oxides > 20%, carbonate and silicates < 20%, strongly magnetic (Mag Susc > 20000)
Sokoman IF - oxide facies	QMHT	Lean qtz-magnetite mineralogy, little to no silicate or carbonate, Fe oxides <10%, possibly near base of Sokoman, weakly magnetic (Mag Susc <20000)
Sokoman IF - silicate facies	SILI	dominantly qtz-silicate+siderite mineralogy, Fe oxides < 10%, silicates > 20%, carbonate< 20%, non-magnetic (Mag Susc < 300x10-5SI)
Sokoman IF - silicate facies	SICA	Mixed qtz-silicate-carbonate mineralogy, Fe oxides < 10%, silicates 10-30%, carbonate 10-30%, variably-magnetic (Mag Susc variable 300-20000x10-5SI)
Sokoman IF - silicate facies	SIMT	dominantly qtz-silicate-magnetite mineralogy, silicates > 20%, Fe oxides 10-20%, carbonates < 10%, weakly magnetic (Mag Susc < 20000)
Sokoman IF - silicate facies	MTSI	dominantly qtz-magnetite-silicate mineralogy, silicates > 10%, Fe oxides >20%,

Formation	Code	Description
		carbonates < 10%, strongly magnetic (Mag Susc >20000)
Wishart	Wis	Wishart Formation - orthoquartzite
Denault	Den	Denault Formation - carbonate marble, sometimes with minor silica banding
Attikamagen	Att	Attikamagen Formation - mica schists, dominanlty qt-plag-bt or qtz-felsp-musc- bt+garnet
Ashuanipi	Ash	Ashuanipi Basement complex - granitoids or foliated qtz-felsp-mi-gt gneiss

Drill hole 10LB0001 was drilled on a coincident magnetic and gravity high at Goethite Bay and intersected weakly mineralized iron formation throughout its length. Assay results were not encouraging due to the thin nature of oxide rich iron formation units which were interspersed within units of carbonate facies and silicate facies iron formation.

Drill holes **10LB0002** and **10LB0003** were drilled within a magnetic low to test for the presence of hematite dominant mineralization. 10LB0002 failed at 33 m and 10LB0003 failed at 90 m when rods became irretrievably stuck in broken ground. Recovered core from 10LB0003 contained significant hematite, goethite, and limonite iron mineralization that was strongly weathered and broken. Core recovery from the hole was poor. Assay values for total iron were encouraging in these holes, but much of the core sample was washed out of the core tube. This fact likely skewed the assay results toward having high iron values if the oxide mineralized material was preferentially recovered during the drilling process.

Drill hole **10LB0012** was drilled within a deep magnetic low. This target was chosen based on a series of holes drilled nearby in the 1950's by IOC where significant thicknesses of hematite were reported from a ground gravity survey. The hole intersected deeply weathered iron formation containing hematite+goethite+/-limonite mineralization and was completed in Wishart Quartzite. Core recovery was uniformly low in the iron formation due to the strong weathering. Total iron values were encouraging, but the core loss may have upgraded the iron content of core samples.

10.2.2 Rio Tinto 2011 Diamond Drilling Program

Rio Tinto completed a total of 8 diamond drill holes for 2,276 m on the Project area between June to September 2011 using a Zintex, helicopter portable, diamond core drill operated by Team Drilling of Saskatoon (Table 10-1 and Figure 10-1). The same drilling, core logging, sampling, and QA/QC procedures used in the 2010 drilling program and as described in Section 10.2.1 were used for the 2011 drilling program, except that Rio Tinto recovered both NQ and HQ diameter core to increase recovery.

Drill hole **11LB0024** was completed on the flank of a magnetic high and gravity low. Only one small zone of iron oxide facies was intersected and returned 34.2% total iron over 1.14 m from 85.52 m to 86.66 m downhole.

Drill hole **11LB0026** intersected many thin bands of hematite rich oxide facies iron formation. This drill hole was 1.4 km SE from hole 11LB0024 and also targeted a magnetic high and a gravity low. The amount of iron oxide intersected in this drill hole did not correlate directly to the gravity low interpretation. Near the top of the drill hole there was evidence of strong weathering to goethite and limonite with little remnant silicates preserved. This strongly weathered section was porous and interpreted by Rio Tinto geologists to be the cause of the gravity low anomaly. Assay results for this hole were encouraging with 29.6% total iron over 92.5 m and 30.6% total iron over 65 m beginning at a depth of 25.5 m.

Drill hole **11LB0027** encountered thick sections of goethite and hematite rich iron formation separated by a quartzite unit. This hole was drilled using larger diameter HQ size drill rods to evaluate whether the drill holes completed in 2010 that had poor recovery, but had intersected good iron grades, were preferentially upgrading the iron minerals at the expense of the silicates. Recoveries did significantly improve using HQ diameter core when compared to the NQ core recoveries from 2010.

The iron mineralization intersected in hole 11LB0027 represent significant intercepts with both thickness and grade. The hole was targeting a magnetic null and slight gravity anomaly on the flank of a large magnetic high. The large amount of iron encountered in this hole should have produced a large gravity anomaly but due to the strong weathering of the rock much of the silicates have been altered and the rock has a high amount of void space.

Drill hole **11LB0029** was completed as a 500-m step-out from hole 11LB0027 and encountered 29.4% total iron over 120 m (114-234 m depth) with similar mineralization to that observed in hole 11LB0027. This drill hole also returned a high-grade interval of 47.7% total iron over 2.7 m from 207.3 - 210 m depth.

Drill hole **11LB0030** was completed as a 600 m northeast step-out from hole 11LB0027 in order to assess the northeast extension of the mineralization observed in hole 11LB0027. This hole targeted a larger gravity and highly magnetic anomaly compared to the anomaly observed at 11LB0027. The oxide facies encountered in this hole were lower in overall grade but showed significant local iron content such as 44.9% total iron over 3 m from 66 - 69 m depth. Overall, this drill hole included a composite interval of 26.4% total iron over 214.5 m from 16.5 - 231 m depth.

Drill hole **11LB0031** targeted a weak gravity high and magnetic null 1 km northwest of hole 11LB0027. This hole intersected 28.4% total iron over 97.5 m from 25.5 - 123 m depth with a smaller interval of 30.3% total iron over 51 m from a depth of 72 m. Similar to other drill holes in the area the geophysical signature did not seem to directly correlate with the amount of iron present so the strong weathering observed in this drill hole was thought to have converted any primary magnetite to a non-magnetic form of iron oxide and increased pore space, thereby reducing the gravity anomaly encountered.

Drill hole **11LB0032** was completed over a large magnetic anomaly and moderate gravity anomaly. The hole intersected a strongly weathered oxide facies near the top of the hole but the weathering quickly became localized and the mineralization intersected was fresh magnetite rich iron formation inter-banded with silicate rich iron formation. Assay highlights include 21.5% total iron over 323 m from 77 - 400 m depth including 28.4% total iron over 47 m from 77 - 124 m depth and a smaller interval of 36.4% total iron over 2.65 m from 116.08 - 118.73 m depth.

Drill hole **11LB0038** intersected a low-grade composited interval of 26.9% total iron over 187 m from 9.4-197 m depth including a higher-grade interval of 36.5% total over 5.8 m from 46.2 - 52 m depth. The majority of the drill hole was strongly weathered, which may have contributed to the subdued magnetic and gravity anomalies over the area.

The 2011 Rio Tinto drilling program discovered large intersections of iron. Weathering from meteoric waters appeared to play a role in upgrading the original banded iron found in the holes drilled on the eastern side of the Project. Drilling determined that the depth of weathering was variable and likely controlled by a NW-SE trending fault that cuts across the Project. The realization that good iron grades could be found in areas without prominent gravity or magnetic anomalies resulted in Rio Tinto reviewing all of its iron properties to identify areas with similar characteristics for future drilling.

10.2.3 Rio Tinto 2012 Diamond Drilling Program

Rio Tinto completed a total of 6 diamond drill holes for 1,427 m on the Project between June to July 2012 using two helicopter portable, diamond core drills operated by Boart Longyear and Downing Drilling (Table 10-1 and Figure 10-1). The same drilling, core logging, sampling, and QA/QC procedures used in the 2010 and 2011 drilling programs and as described in Section 10.2.1 were used for the 2012 drilling program, and Rio Tinto recovered both NQ and HQ diameter core to increase recovery. In addition, during the 2012 drilling program a MultiMag Reflex or DeviFlex downhole survey tool was used to survey each hole once drilling was completed. In cases where the DeviFlex was used to survey a hole, that data was used to plot the hole in 3-D space for sections and plan maps.

Drill hole **12LB0045** was completed as a 470 m northwest step-out from hole 11LB0027 drilled to ensure that the mineralization encountered in holes 11LB0027 and 11LB0026 (both drilled in 2011) was continuous. Hole 12LB0045 reported a composite assay result of 30% total iron over 191 m from 56.9 m depth including 34.3% total iron over 22 m from 126 m depth. Rio Tinto inferred that the increased iron content in this subsection was due to goethite enrichment.

Drill hole **12LB0048** was completed to test the extension of a magnetic anomaly to the south of hole 11LB0032 (drilled in 2011). The hole collared into hematite-rich mineralization with abundant goethite and limonite and contained a continuous mineralized interval of 32.8% total iron over 70.16 m from 11.13 m depth. Rio Tinto inferred that some of the iron in this intersection could be attributed to goethite and limonite abundances. The assay results also detected deleterious pyrolusite and manganese, which produced increases in manganese oxide results. Below this interval, iron mineralization and associated iron percentages fluctuated throughout the limonite dominated rocks with only a few individual 3 m samples reporting above 30% total iron.

Drill hole **12LB0051** was completed to the southwest of hole 11LB0026 (drilled in 2011) to test the southern extent of iron mineralization on the Project. This drill hole provided valuable information on the structural characteristics within the Project area with evidence of overturned strata and a precisely located thrust faulting plane. The hole intersected approximately 130 m of schist before entering oxide facies iron formation at approximately 192 m depth returning a composite assay interval of 28.1% total iron over 33.7 m including 35.88% total iron over 3.2 m at 221.8 m depth. The hole was completed in silicate facies iron formation with increasing grades.

Drill hole **12LB0053** was completed in order to fill in a stratigraphic hole in the middle of a large magnetic anomaly and possibly extend iron mineralization encountered in hole 11LB0029. Hole 12LB0053 was abandoned at 31.03 m depth due to sand infilling the hole from above (poor ground conditions). The hole was collared in hematite-dominated oxide facies iron formation in a continuous interval of 27.61% total iron over 19.53 m until it was abandoned.

Drill hole **12LB0054** was completed as a twin hole to 12LB0053 after it was abandoned due to poor ground conditions. Hole 12LB0054 was also abandoned at 36.3 m depth due to sand infilling the hole from above. The hole collared into hematite-dominated iron formation in a continuous interval of 26.51% total iron over 15.65 m until it was abandoned.

Drill hole **12LB0055** was completed to a depth of 366 m as a twin hole to 12LB0053 and 12LB0054 that were both abandoned due to poor ground conditions. To avoid the problems with sand infilling that affected holes 12LB0053 and 12LB0054, the casing for hole 12LB0055 was extended far into bedrock (35 m in total). The hole encountered hematite dominated iron formation with a composite interval of 27.1% total iron over 254 m from 35 m depth (bottom of casing). The hole also intersected intermittent magnetite dominated iron formation and goethite/limonite rich intervals in a composite interval of 32% total iron over 20.31 m from 180 m depth, and rare schist intervals of 25.2% total iron over 51.63 m from 314 m depth.

Structural interpretations of the project area by Rio Tinto suggested the geology is composed of intensely folded beds that dip to the southeast. However, Rio Tinto reported that correlation of lithological packages was difficult between drill holes due to abundant folding, and strong to intense alteration of the iron formation lithologies. Lithological units (facies) showed intense folding on a centimetre scale in core and suggested folding on a kilometre scale. Rio Tinto also noted significant variable alteration patterns that transected observed lithological layers in the core. The lack of easily identifiable stratigraphic markers coupled with abundant micro- and macro-folding and the spatially-variable intense alteration made it difficult to recognize repeated layers and folding patterns or decipher the scale of folding in the drill core.

Rio Tinto also noted the generally accepted regional division of subunits within the Sokoman Iron Formation were difficult to distinguish in the core. This may have been due to core logging errors, or that the generally shallow holes made it difficult to discern the differences between Upper, Middle, and Lower Iron Formation units that have been defined on adjacent iron properties. Rio Tinto noted that identifying the three main iron formation facies types in drill core (i.e. oxide, carbonate, or silicate) was possible except in cases were alteration had obscured these facies types.

Rio Tinto concluded that discovering an iron deposit in the area with the necessary grade and tonnage to economically mine includes identifying areas where structural controls such as folding and faulting have upgraded thinner mineralized units into a mineable package thickness. Finding these zones requires further interpretation of gravity, magnetic, and drill core data, and additional diamond drilling.

10.3 High Tide Resources Diamond Drilling Programs

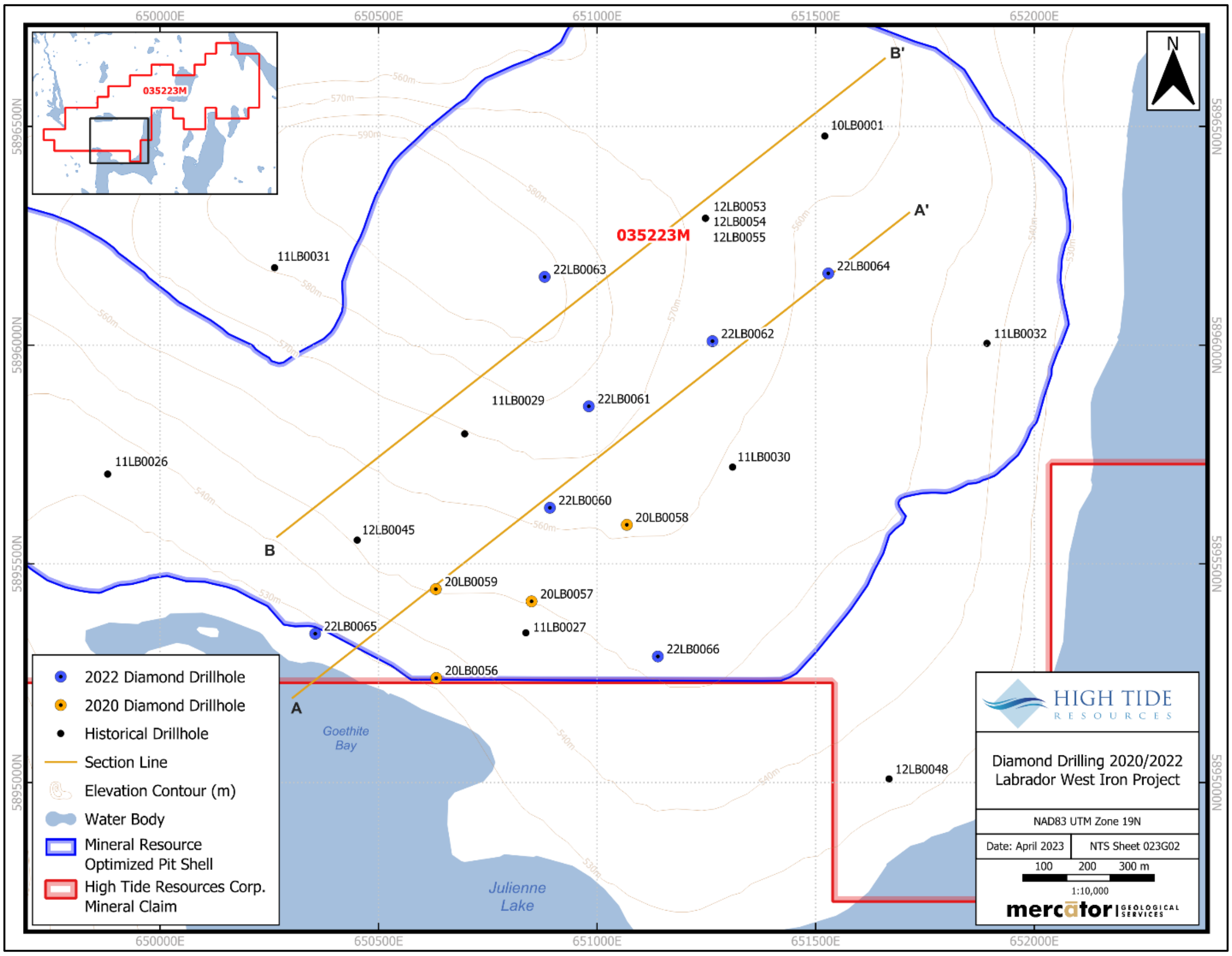
High Tide conducted two diamond drilling programs on the Labrador West property in 2020 and 2022. High Tide drilled a total 11 diamond drill holes and 3,299 m. The diamond drilling programs were designed to test the lithological and grade continuity between several widely spaced historical Rio Tinto diamond drilling holes from 2010 to 2012 to define an Inferred Mineral Resource estimate. Drill hole locations are summarized in Table 10-4 and Figure 10-2.

Table 10-4: Summary of 2020 and 2022 Diamond Drilling Program

Hole No.	Easting NAD83 (m)	Northing NAD83 (m)	Azimuth (deg.)	Dip (deg.)	Total Depth (m)	Start Date D/M/Y	End Date D/M/Y
20LB0056*	650609	5895214	341.0	-80	128	07/28/2020	08/03/2020
20LB0057	650850	5895414	340.8	-80	347	08/04/2020	08/13/2020
20LB0058*	651068	5895589	339.6	-80	190	08/13/2020	08/18/2020
20LB0059	650631	5895442	339.8	-80	334.5	08/19/2020	09/02/2020
22LB0060	650892	5895630		-90	272	04/24/2022	05/01/2022
22LB0061	650983	5895854		-90	252	05/03/2022	05/10/2022
22LB0062	651259	5896013		-90	350	05/12/2022	05/21/2022
22LB0063	650880	5896153		-90	350	05/22/2022	06/01/2022
22LB0064	651527	5896166		-90	345	06/03/2022	06/09/2022
22LB0065	650356	5895339		-90	395	06/10/2022	06/17/2022
22LB0066	651139	5895288		-90	335	06/21/2022	06/26/2022
Total Drill holes	**11**		**Total Meterage (m)**		**3,298.5**		

(1) Collar locations were surveyed using a handheld Garmin 64s GPS unit and are reported in UTM NAD83 Zone 19N
(2) True widths are estimated to be approximately 90% of the reported intervals
(3) Core drilling program using NQ diameter drilling rods
(4) *Holes were stopped in mineralization due to poor ground conditions

Figure 10—2: Location of High Tide 2020 and 2022 Diamond Drill Holes



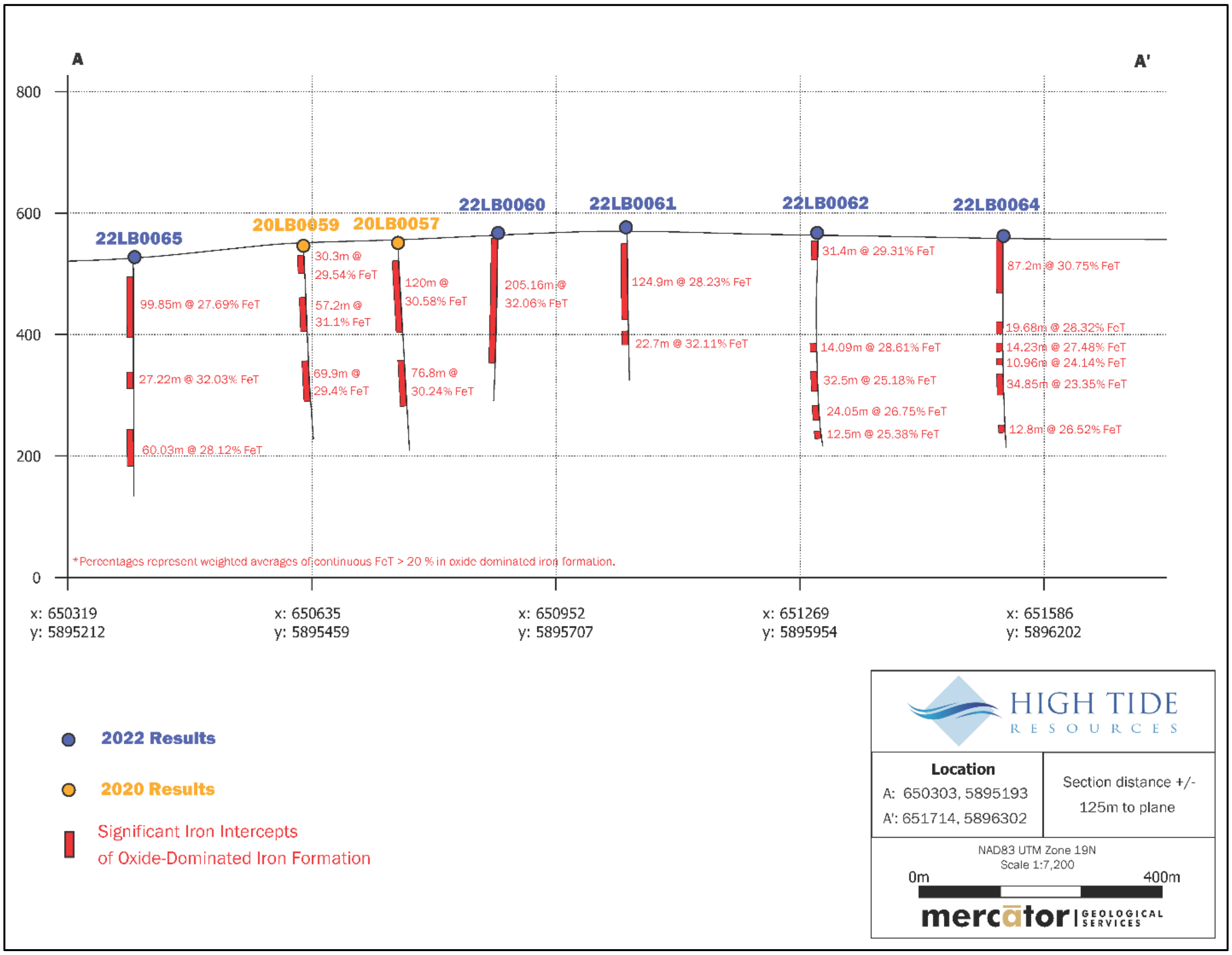
A summary of the significant intercepts of oxide facies iron formation appears in Table 10-5 below. Cross-sections in Figures 10-3 and 10-4 show the downhole location of the intercepts of the oxide facies iron formation. True widths for the sections drilled are estimated to be approximately 90% of measured sample interval thicknesses. The stratigraphic section containing the iron mineralization of interest is interpreted to be dipping to the south at approximately 30°. Table 10-6 describes the lithocoding system used throughout the 2020 and 2022 core logging programs. A summary of the main lithologies encountered in each drill hole appears in the sections below.

Table 10-5: 2020-21 Intercepts of Oxide Facies Iron Formation.

Hole ID	Dominant Oxide Facies	From (m)	To (m)	Drill width (m)	FeT (%)
20LB0056	Hematite-dominated	31.50	52.00	20.50	39.36
	Hematite-dominated	68.00	104.00	36.00	37.69
	Hematite-dominated	110.80	128.00	17.20	32.87
20LB0057	Hematite-dominated	29.00	151.70	122.70	30.60
	Hematite-dominated	195.50	272.30	76.80	30.25
20LB0058	Hematite-dominated	140.40	190.00	49.60	31.59
20LB0059	Hematite-dominated	20.20	50.50	30.30	29.54
	Hematite-dominated	91.00	165.00	74.00	30.81
	Hematite-dominated	198.70	268.60	69.90	29.42
22LB0060	Hematite-dominated	4.60	209.76	205.16	32.06
22LB0061	Hematite-dominated	26.30	151.20	124.90	28.23
	Hematite-dominated	170.00	192.70	22.70	32.11
22LB0062	Hematite-dominated	11.00	42.40	31.40	29.31
	Hematite-dominated	179.91	194.00	14.09	28.61
	Magnetite-dominated	226.00	258.50	32.50	25.18
	Magnetite-dominated	281.95	306.00	24.05	26.75
	Magnetite-dominated	323.75	336.25	12.50	25.38
22LB0063	Hematite-dominated	3.95	82.75	78.80	30.51
	Hematite-dominated	177.00	214.90	37.90	27.92
	Magnetite-dominated	241.70	265.00	23.30	27.99
	Magnetite-dominated	317.50	350.00	32.50	31.67
22LB0064	Hematite-dominated	3.30	90.50	87.2	30.75
	Magnetite-dominated	137.20	156.88	19.68	28.32
	Magnetite-dominated	172.12	186.35	14.23	27.48
	Magnetite-dominated	223.11	257.96	34.85	23.35
	Magnetite-dominated	307.50	320.30	12.8	26.52
22LB0065	Hematite-dominated	33.10	98.00	64.90	28.69
	Hematite-dominated	106.89	132.95	26.06	30.42
	Hematite-dominated	189.78	217.00	27.22	32.03
	Hematite-dominated	284.77	344.80	60.03	28.12
22LB0066	Hematite-dominated	128.30	179.00	50.70	31.18
	Magnetite-dominated	307.20	318.30	11.10	27.16

Note: Intercepts are reported as downhole lengths and true widths are approximately 90% of the reported length. Intercepts reflect a minimum grade of 15% FeT within predominantly oxide facies over a minimum length of 10 m with a maximum accepted dilution of 10 m downhole.

Figure 10—3: Section A-A' (Figure 10-2) with Significant Composite Assay Intervals (View to Northwest)



*Percentages represent weighted averages of continuous FeT > 20 % in oxide dominated iron formation.

Figure 10—4: Section B-B' (Figure 10-2) with Significant Composite Assay Intervals (View to Northwest)

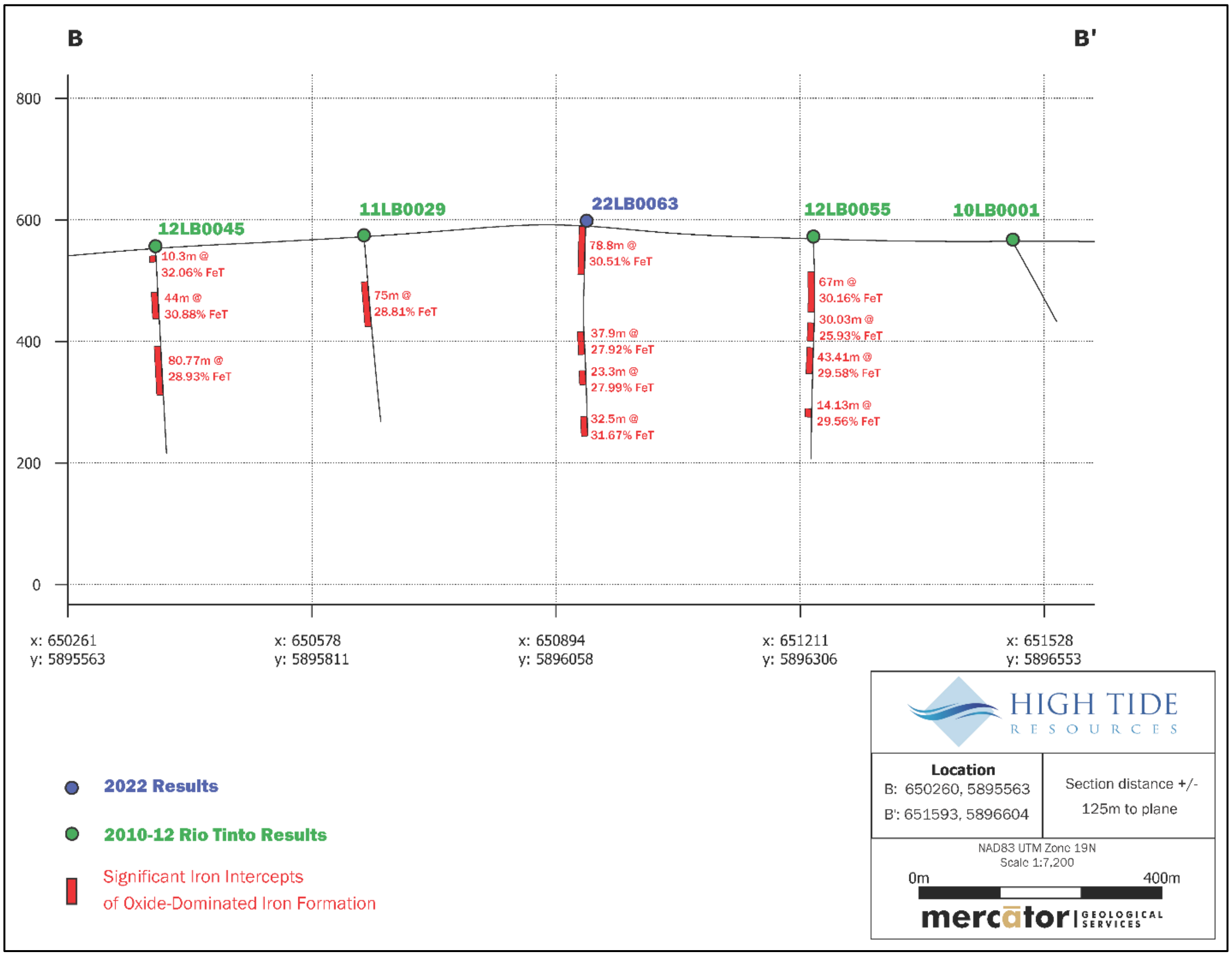


Table 10-6: Lithology Coding for 2020-2022 Diamond Drilling Programs

Major Lithologies	Subunits	Description (modified from Rio Tinto descriptions)	Stratigraphic Interpretation
SCGP	SCGP	Graphitic schist	Menihek Formation
Carbonate-Silicate Iron Formation (C-SIF)	SILI	Quartz -silicate (>10%)-carbonate (<10%), non-magnetic	Upper Iron Formation or lower Iron Formation
	SIGT	Similar to SILI but contains garnet; Quartz -silicate (>10%) -carbonate (<10%)-garnet;	
	SICA	Quartz-silicates (>10%) - carbonates (>10%); carbonates variably reactive to acid, variably magnetic	
Magnetite-Silicate Iron Formation (M-SIF)	MTSI	Quartz -magnetite (10-20%) - silicates; strongly magnetic	Upper Iron Formation?
	SIMT	Quartz - silicates - magnetite (<10%); weakly magnetic	
	GLSI	Oxidized or weathered iron formation (predominantly massive goethite and/or limonite); protolith is interpreted to be Silicate Facies based on presence of fibrous bands (limonite?) after amphibole	
Magnetite-Carbonate Iron Formation (M-CIF)	MTCA	Quartz-magnetite (10-20%) - carbonate (>10%), magnetic	Upper or Lower Iron Formation
	CAMT	Quartz - siderite (>20%) - magnetite (<10%); carbonate unreactive to 10 % HCl acid	
	CARB	Quartz-siderite (>10%); Carbonate unreactive to 10% acid; non-magnetic	
	GLCA	Oxidized or weathered Iron Formation (predominantly massive goethite and/or limonite) where protolith is interpreted to be Carbonate Facies based on presence of vugs (weathered out carbonate?)	
Magnetite-Hematite Iron Formation (M-HIF)	MTOX	Quartz -magnetite>>hematite-carbonate; Fe oxides > 20%, carbonate and silicates < 10%, strongly magnetic	Middle Iron Formation
	MHOX	Quartz-magnetite>hematite; Fe oxides > 20%, carbonate and silicates < 10%, moderately magnetic	
	QMHT	Lean quartz -magnetite-hematite; little to no silicate or carbonate, Fe oxides present but <10%, weakly to non-magnetic	
	HMOX	Quartz-hematite>magnetite-carbonate; Fe oxides, 20%, carbonate and silicates <10%, weakly to non-magnetic	

Major Lithologies	Subunits	Description (modified from Rio Tinto descriptions)	Stratigraphic Interpretation
	GLOX	Oxidized or weathered iron formation (predominantly massive goethite and/or limonite) where protolith is interpreted to be Oxide Facies; may contain hematite or magnetite	
	MNOX	MT or HM-rich Oxide Facies with distinctive pink colour due to Mn silicates and carbonates; Fe Oxides>10%	
Wishart Quartzite	QTEM	Quartz-dominated rock with micas as main accessory	Wishart Formation
	QTEC	Granular quartz>carbonate rock; quartz>50%, carbonate likely to be HCL-reactive	
	SCMI-msc	Micaceous schist; muscovite-rich; quartz and feldspar vary up to >70%	
CMBL	CMBL	Granular carbonate>quartz rock; quartz <50%., carbonate likely to be HCL-reactive; no samples found for library	Denault Formation dolostone?
SCAM	SCAM	Amphibole-rich schist; dark green or bluish green in colour, often with biotite and garnet; looks very similar to AMP	Shabogamo Gabbro Sill
SCMI-bt	SCMI-bt	Micaceous schist; biotite-rich; quartz and feldspar vary up to >70%	
QTEF	QTEF	Quartz-dominated rock with feldspar as main accessory; no samples found for library	Le Fer Formation, Ashuanipi Complex or Menihek Formation gneisses
FQTE	FQTE	Feldspar > quartz >mica rock; no samples found for library	
FMSC	FMSC	Feldspar >mica>quartz rock; no samples found for library	
AMP	AMP	Amphibolite gabbro; may have garnet and biotite but little quartz	Shabogamo Gabbro
CAHM	CAHM	Quartz-carbonates-hematite; Fe Oxides <10%, carbonate>10%, silicates<10%, weakly to non-magnetic; no samples found for library	Unknown

10.3.1 2020 Diamond Drilling Program Details

High Tide completed a diamond drilling program between July 26, 2020 and September 3, 2020 focused on the iron deposits defined by Rio Tinto drilling within the Project area. The diamond drilling program was supervised by Mercator and comprised four diamond drill holes totalling 1,000 m. The diamond drilling program was designed to test the lithological and grade continuity between several widely spaced historical Rio Tinto diamond drill holes completed between 2010 and 2012. Table 10-4 and Figure 10-2 indicate the location of diamond drilling holes completed in 2020.

The 2020 diamond drilling program was undertaken using a CDI 500 heli-portable diamond drilling rig provided by Cartwright Drilling Inc. of Happy Valley – Goose Bay, NL. The drilling rig was broken down into numerous components weighing less than 900 kilograms (approx. 2,000 lbs) and flown by a Eurocopter AS350 B2 helicopter to the drill pad site where it was re-assembled. This program was completed using wireline drilling equipment that recovered NQ size (47.6 mm diameter) core. The depth capacity of the equipment used is approximately 500 m using NQ rods at hole inclinations between -90° and -45°.

Drill holes were located on Crown land owned by the Province of Newfoundland and Labrador within High Tide's mineral licence. Completed drill holes depths ranged from 128 m to 347 m in drilled length. Due to the poor ground conditions identified on the Project, core loss was possible from the driller using too much water pressure, ineffective use of drilling additives, grinding of core, and the re-drilling of core that has been dropped from the core barrel due to faulty core springs. Core loss was documented in the total core recovery of the geotechnical logging as well as in every sample comment where it was noted <50cm.

Drill holes were spotted using a Garmin 64s global positioning system (GPS) hand-held instrument using UTM NAD83 Zone 19N coordination. All drill pads were cleaned of any debris after completion of drilling activities and remain clearly visible at this time. Future surveying of hole locations using more accurate positioning methods can be readily undertaken.

The following summarizes the geology and mineralization for each of the four diamond drill holes completed on the property in 2020. Generally, overburden thickness varied from 1.8 m to 10 m and drilling confirmed that the bedrock sequences are predominantly comprised of thick (typically >50 m) lenses of massive specular hematite (HMOX) containing relatively thin (10-20 m) interbedded intervals of variably altered silicate and/or carbonate facies iron formation. All four holes intersected high grade intervals of total iron dominated by HMOX. This is consistent with results returned for the four Rio Tinto holes completed previously in the immediate area of the 2020 drilling.

2020 Diamond Drill Hole Summary Descriptions

Drill hole 20LB0056

This hole had a planned depth of 350 m but terminated at a depth of 128 m due to poor ground conditions. Attempts to recover the hole were not successful. The hole was collared approximately 260 m east of Rio Tinto hole 11LB0027 and was targeted as an infill hole to test continuity of iron mineralization between holes (Figure 10-2). The hole intersected predominantly iron formation rocks, including a thick section of massive specular hematite (HMOX lithocode) as well as thinner, interbedded sections of carbonate/silicate facies iron formation rocks with greater than 10% interbedded iron formation (oxide facies), plus goethite and limonite bearing intervals (GLOX, GLSI lithocodes). The hole also encountered a 6.8 m thick silicate carbonate interval (QMHT lithocode), with a granular quartz matrix plus patchy ankerite, and minor goethite mineralization. Significant core loss was noted (approx. 90%) between 57.2 m and 68.2 m.

Drill hole 20LB0057

This hole was drilled to a depth of 347 m and was collared 75 m north of Rio Tinto drill hole 11LB0027 (Figure 10-2). The top of the hole from 3 m to 12 m intercepted silicate facies iron formation (GLSI lithocode) with hematite and magnetite mineralization followed by a 11.3 m thick marker bed of biotite schist (SCAM lithocode) to a depth of 23.3 m. The remainder of the hole was dominated by thick iron formation (HMOX, GLOX lithocodes) interlayered with minor silicate facies iron formation (GLSI lithocode) and a thin interval (< 10m) of a quartz rich unit (QMHT lithocode). The hole intersected quartzite of the Wishart Formation at a depth of 338 m and was shut down at 347 m.

Drill Hole 20LB0058

This hole had a planned depth of 350 m but was terminated at a depth of 190 m due to poor ground conditions. The hole was collared as an infill hole between Rio Tinto hole 11LB0030 in the northwest and High Tide hole 20LB0057 in the southeast (Figure 10-2). The top of the hole, from 4.5 m to 120.2 m, was dominated by iron oxides (>10%) (MTCA, MTSI lithocodes) and minor thin silicate-quartz-carbonate iron formation, (SICA, SIMT lithocodes at <10%). Iron oxides in these silicate units were mostly comprised of centimetre-scale magnetite bands (10-20% visual estimates). A 12.6 m think quartz-biotite schist (SCAM lithocode) was intersected from 120.2 m to 132.8 m. From 132.8 m to 190 m the hole intersected magnetite rich iron oxides (MHOX lithocode), predominately quartz and specular hematite with 15-20% magnetite banding. Minor intercalated strongly altered goethite iron formation (GLOX lithocode) and thin quartz units (QMHT lithocode at <10m thicknesses) were also intersected within the predominantly oxide facies mineralization interval. The hole was terminated at 190 m due to poor ground conditions.

Drill hole 20LB0059

This hole was targeted as a step-out infill hole located 225 m east from High Tide hole 20LB0057 and Rio Tinto hole 12LB0045 (Figure 10-2). The hole collared into bedrock at 1.8 m and intersected a quartz rich unit (QMHT lithocode) to a depth of 20.2 m, including a 4.9 m interval of quartz-biotite rich schist (SCAM lithocode). From 20.2 m to 325.1 m the hole was dominated by thick lenses of oxide facies iron formation with quartz, hematite, magnetite (HMOX, GLOX lithocodes) and a small 4 m interval of interbedded quartz-silicate-carbonate (SILI lithocode). Quartzite of the Wishart Formation was intersected at 325.1m and the hole was terminated at 334.5m.

10.3.2 2022 Diamond Drilling Program Details

High Tide completed a diamond drilling program from April 22 to June 30 2022 on the property. The diamond drilling program was supervised by Mercator and comprised of seven drill holes totalling 2,299 m. The diamond drilling program was designed to further test the lithological and grade continuity between the widely spaced historical Rio Tinto diamond drilling holes from 2010 to 2012 and to provide adequate drillhole spacing to define an Inferred Mineral Resource.

Exploration permits, water usage permits, and wood harvesting permits were issued by the GNL. The exploration permit was approved by a Regional Geologist with GNL, the water withdrawal permit for drilling operations was approved by Water Management Engineer with GNL, and the wood harvesting permit was approved by a Regional Forest Ranger with GNL.

The 2022 diamond drilling program was executed using a Duralite heli-portable diamond drilling rig provided by Logan Drilling Inc. of Stewiacke, NS. The drilling rig was broken down into numerous components weighing less than 900 kilograms (approx. 2,000 lbs) and flown by a Eurocopter AS350 B2 helicopter to the drill pad site and reassembled. The drilling rig is a rotary drill with a diamond drill bit attached. All drillholes were started with HQ drilling rods and reduced to NQ drilling rods when drilling couldn't progress further. HQ drilling rods have an outer hole diameter of 96 mm and return core with a diameter of 63.5 mm; and NQ drilling rods have an outer hole diameter of 75.7 mm and return core with a diameter of 47.6 mm. The core is retrieved using a wireline core tube assembly inside the rods.

Drill holes were located on Crown land owned by the Province of Newfoundland and Labrador within High Tide's mineral licence. Holes were drilled depths varied from 252 m to 395 m in depth from surface. Due to the poor ground conditions identified on the Project, core loss was possible from the driller using too much water pressure, ineffective use of drilling additives, grinding of core, and the re-drilling of core that has been dropped from the core barrel due to faulty core springs. Core loss was documented in the total core recovery of the geotechnical logging as well as in every sample comment where it was noted <50cm.

Drill holes were spotted by a Garmin 64s global positioning system (GPS) in NAD83 Zone 19N, with a +/- 3 m radius error. Three out of four drill holes had the casing pulled; however, all drill pads remain visible for future surveying. All seven drill pads were inspected, documented, and photographed by Ryan Kressall at the end of the program.

The following summarizes the geology and mineralization for each of the seven diamond drill holes completed on the property in 2022. Generally, overburden thickness varied from 1.8 3 m to 11 m and drilling confirmed that the bedrock sequences are predominantly comprised of thick (typically >50 m) lenses of massive specular hematite (HMOX) containing relatively thin (10-20 m) interbedded intervals of variably altered silicate and/or carbonate facies iron formation. All seven holes intersected significant intervals of total iron dominated by HMOX. The thickest composite intercept using a 15% cut-off is 32.06 % total iron over 205.16 m, beginning at a downhole depth of 4.6 m in 22LB0060.

Drill Hole 22LB0060

This hole was drilled to a depth of 272 m and was collared 300 m north of drill hole 20LB0057 (Figure 10-2). Overburden extended to 4.6 m. The top of the hole from 4.60 m to 225.95 m intercepted a thick sequence of oxide facies iron formation (HMOX, GLOX lithocode) with hematite and magnetite mineralization. Pervasive goethite-limonite alteration occurs between from 76.58 to 141.2 m and 195.45 to 219.15 m. From 225.95 to 262.32 m, the hole intersected goethite-limonite-altered iron formation with relatively poor recovery. The protolith for altered zone is interpreted to be carbonate facies iron formation. The hole intersected quartzite of the Wishart Formation at a depth of 262.32 m and was terminated at 272 m within the quartzite.

Drill Hole 22LB0061

This hole was drilled to a depth of 252 m and was collared 300 m north of drill hole 20LB0060 (Figure 10-2). Overburden extended to 3.95 m. The top of the hole from 3.95 m to 7.5 m intercepted a weathered gabbro unit, followed by silicate (+ magnetite) facies iron formation from 7.5 to 15.0 m and altered carbonate facies iron formation from 15.0 to 26.3 m. The hole intersected oxide facies (magnetite + hematite) iron formation from 26.3 to 151.2 m. From 151.2 to 170 m, the hole intersected silicate facies iron formation. The drill hole intersected a shorter interval of oxide facies iron formation from 170 to 192.7 m, then from 192.7 to 242.1 m, the hole intersected strongly oxidized carbonate facies iron formation with poor competency. The hole intersected quartzite of the Wishart Formation at a depth of 242.1 m and was shut down at 252 m within the quartzite.

Drill Hole 22LB0062

This hole was drilled to a depth of 350 m and was collared 300 m northwest of drill hole 20LB0061 (Figure 10-2). Overburden extended to 11 m. The drill hole intercepted hematite-dominated oxide facies iron formation (HMOX) from 11.0 m to 42.4 m. From 42.4 m to 81.9 m, the drill hole intersected carbonate facies iron formation that becomes increasingly oxidized and altered to goethite and limonite towards the top contact with the oxide facies iron formation and bottom contact with the Wishart Formation quartzite. The drill hole intersected the Wishart Formation quartzite from 81.9 to 112.38 m, where the hole returned to iron formation. From 112.38 to 179.91 m, the iron formation is dominantly silicate facies with short intercepts of magnetite-dominant horizons (1 to 5 m thick). The hole intersected oxide facies iron formation (magnetite > hematite) from 179.91 m to 194 m, before returning to silicate (+/- carbonate) facies iron formation. The hole intersected significant horizons of oxide mineralization within the silicate-carbonate iron formation at 222.9 to 258.5 m, 281.95 to 307.95 m, and 323.75 to 336.25 m. Within these horizons, magnetite is generally more dominant than hematite and they commonly contain calcite. The hole was terminated at 350 m within goethite-limonite altered iron formation. The intersection of quartzite (Wishart Formation?) within the iron formation between 81.9 and 112.38 m is believed to be the result of isoclinal folding of the Kaniapiskau Supergroup.

Drill Hole 22LB0063

This hole was drilled to a depth of 350 m and was collared 300 m northeast of drill hole 20LB0061 (Figure 10-2). Overburden extended to 3.95 m. From 3.95 m to 82.75 m, the drill hole intercepted hematite-dominated oxide facies iron formation (HMOX). From 82.75 to 129.83 m, the hole intersected a transitionary zone and consists of dominantly friable goethite-limonite iron formation with quartzite intercepts up to 4 m thick. The vuggy texture of the iron formation supports a possible carbonate facies iron formation protolith. From 129.83 to 163.9 m, the drill hole drilled through a quartzite unit, then returned to goethite-limonite altered iron formation until 177.0 m. From 177.0 to 214.9 m, the drill hole intersected hematite-dominated oxide facies iron formation. The remainder of the drillhole, from 214.9 to 350 m, consists of goethite-limonite iron formation (interpreted as a carbonate facies iron formation protolith) with horizons of magnetite-dominated (+/- hematite) iron formation. Horizons of oxide-dominated iron formation occur at: 241.9 to 265.0 m, 317.5 to 330.0 m, and 333.93 to 336.3 m. The hole was terminated at 350 m within goethite-limonite altered iron formation. The intersection of quartzite

(Wishart Formation?) within the iron formation between 129.83 and 163.9 m is believed to be the result of same isoclinal folding intersected in drill hole 22LB0062.

Drill Hole 22LB0064

This hole was drilled to a depth of 345.3 m and was collared 300 m northeast of drill hole 20LB0062 (Figure 10-2). Overburden extended to 3.3 m. The top of the hole from 3.3 m to 90.5 m intercepted hematite-dominated oxide facies iron formation. From 90.5 to 137.5 m, the hole intercepted altered iron formation where the protolith is interpreted as carbonate iron formation based on the abundance of vugs. The remainder of the hole, from 137.5 to 345.3 m consists interlayered beds of silicate facies and magnetite-dominated (+/- hematite) iron formation 1 to 18 m thick. The most substantial magnetite-rich zones are identified at 137.2 to 156.88 m, 172.12 to 186.35 m, 222.11 to 247.293.72 m, and 307.07 to 320.3 m, but are intermixed with the host silicate facies iron formation. The drill hole was shut down at 345.3 m still within the silicate facies iron formation.

Drill Hole 22LB0065

This hole was drilled to a depth of 395 m and was collared 300 m southwest of Rio Tinto drill hole 11LB0045 (Figure 10-2). Overburden extended to 11 m. The top of the hole from 11 m to 33.1 m intercepted sandy iron formation with very poor core return. From 33.1 to 132.95 m, the hole intercept hematite-dominated oxide facies iron formation with two minor breaks of silicate facies iron formation occurring at 48.73 to 55.55 m and 111.8 to 120 m; and locally altered to goethite-limonite and rubble. From 132.95 to 189.78 m, the hole intercepted altered carbonate facies iron formation, before transitioning back to oxide facies iron formation between 189.78 and 217 m. From 217.0 to 276.4 m, the hole intercepted a mix between weathered carbonate facies iron formation and quartzite. From 276.4 to 344.8 m, the hole intercepted a third horizon of hematite dominated iron formation. From 344.8 to 382.37 m, the iron formation is altered to goethite/limonite and clay, making it difficult to identify the facies protolith. The drill hole intersected the Wishart Formation quartzite at 382.37 m and was shut down at 395 m within this unit.

Drill Hole 22LB0066

This hole was drilled to a depth of 335 m and was collared 300 m southeast of drill hole 20LB0057 (Figure 10-2). Overburden extended to 4 m. The top of the hole from 4 m to 37.17 m intercepted rubbly and weathered (to goethite and limonite) iron formation with poor core return. It is difficult to identify the iron formation facies protolith for the rubbly intercept at the top of the hole. From 37.17 to 132.38 m, the hole intercepted silicate iron formation dominated by grunerite and actinolite with accessory magnetite (less than 10 %) and calcite. Magnetite-dominated silicate-facies intercepts occur at 47.82 to 50 m (~45 % magnetite), 69.06 to 77 m (35 to 70 % magnetite) and 128.3 to 132.38 m (~40 % magnetite). Gabbro intrusions occur at 44.0 to 44.85 m, 47.22 to 47.82 m, and 50 to 64.85 m. From 132.38 to 227.1 m, the hole intersected hematite-dominated oxide facies iron formation. Towards the top and bottom contacts above and below, the oxide facies iron formation becomes increasing altered to goethite and limonite and gouge/sand between 132.38 to 148.9 m, and 191 to 227.1 m. Faults may confine the oxide facies iron formation unit. From 227.1 to 307.2 m, the hole intercepted silicate-facies iron formation with greater concentrations of magnetite (locally up to 60 %) than the silicate-facies iron formation intersected above. A magnetite-hematite iron formation occurs between 307.2 to 321.3 m, directly above the Wishart Formation quartzite. The Wishart Formation quartzite was intersected at 321.3 m and the hole was terminated at 335 m within this unit.

11.0 SAMPLE PREPARATION, ANALYSES AND SECURITY

11.1 Core Logging, Sampling and Sample Preparation

11.1.1 2010 to 2012 Rio Tinto Drilling Programs

During the 2010, 2011 and 2012 diamond drilling programs by Rio Tinto, mineralized intervals of drill core were continuously sampled throughout the interval defined by the geologist. These samples were 1.5 m in length of half core. Both a core saw, and a hydraulic core splitter were used to split core in half longitudinally. Unmineralized or weakly mineralized core was sampled approximately every 10-20 m with a single 1.5 m long sample. These samples were sent to SGS Minerals Services Laboratory (SGS) in Lakefield, Ontario for laboratory analysis with selected samples sent for detailed trace element analysis. SGS is independent of Rio Tinto and is ISO/IEC 17025 certified.

Quality control samples consisting of blanks, duplicates, and standards were inserted into the sampling sequence approximately 1 in every 5 samples. Pure, locally collected quartzite was used as blank material, and professionally prepared iron sample materials of high, medium, and low iron grades were used as certified reference materials (standards). Sample duplicates were collected from the remaining half of the core not used in the original sample (1st sample = half core; duplicate sample = half core). Finally, all individual samples were weighed, with each weight recorded in the database. The weights provide a simple way to verify if a given sample has been inadvertently switched with another during the assaying process.

Each batch of assay data received from the laboratory underwent QA/QC checks. Results from the sample standards were plotted by Rio Tinto to determine if the values reported by the lab were within acceptable tolerance of the know values. Blank samples were checked to see if they were, indeed, blank with respect to metal content. The lab was notified of any values that were outside of tolerance and would have been asked to re-run specific samples. Once an assay batch passed QA/QC the data was loaded into the AcQuire database.

Each sample was placed in a sealed cloth or plastic sample bag and securely tied shut. For shipping to the laboratory, individual samples were placed in 5 gallon plastic buckets, the lids sealed, and two security tags were attached to opposite rims of the bucket (180° apart) through holes drilled in the bucket lid and sides. Each bucket was assigned a number. The bucket number, seal numbers for each bucket, and total number of buckets were recorded on a sample tracking sheet, a copy of which was sent to the assay laboratory. Buckets were then palletized and shipped via local freight carrier to the SGS in Lakefield, Ontario, Canada. Upon receipt, the lab inventoried the sample shipment against the provided sample list to be sure that all buckets and samples were accounted for and no tampering of the shipment had occurred.

11.1.2 2020-2022 High Tide Resources Programs

The 2020 and 2022 High Tide drill core was logged, sampled, and tested for magnetic susceptibility (Mag Susc) using a KT-10 magnetic susceptibility meter. Geotechnical logging included recording of core box tags and calculation of total core recovery (TCR) and rock quality designation (RQD). Drill core sampling were selected based on lithological contacts. In 2020, selected samples had an average sample length of 1.5 m and in 2022, selected samples have an average sample length of 3 m. Larger sample intervals (>3 m) were also used in some instances and correspond to areas of significant core loss within the sample interval. Core was photographed both dry and wet, with digital images being stored on the Mercator's cloud-based server to which, High Tide has access for viewing.

In 2020, core samples were sawn in half longitudinally using a VANCON 240-volt core saw. In 2022, samples were split in half using a hydraulic splitter that was rented from Tacora Resources Inc. (Figure 11-1). The core was cut in half so that the top of the core stayed in the box with the china marker writing preserved. The bottom portion was put into a sample bag and zip tied, lined up by increasing sample numbers, QA/QC inserts were pre-made and inserted. Sample bags are identified by the sample number being recorded on the outside of the sample bag and one sample tag placed inside the bag with the sample. The shipment was secured in a large pallet size heavy-duty megabag that was tied shut, shrink wrapped to the pallet and picked up by the transport company Procam International Inc. (Procam). The shipment of samples was secure throughout the chain of custody process. Procam is a commercial shipping firm independent of High Tide and Mercator.

For both the 2020 and 2022 programs, specific gravity (SG) was determined for each sample using the water immersion method and was performed on each sample after splitting the sample. Specific gravity determinations were not taken on rubbly or weathered core. Figure 11-2 shows the water immersion SG station used during the 2022 program, for which weight measurements were taken using an A& D EJ-6100 Electronic Scale with a 6100 g weight capacity. Three to four pieces of core were randomly selected from the sample bag to be weighed in air and fully immersed in water. Specific gravity was also measured at Activation Laboratories Ltd. (Actlabs) in Ancaster, Ontario, for the 2022 program using wax-coated water immersion for every major lithology within each drill hole at approximately every 20th sample.

Figure 11—1: 2022 Core Splitter Setup

(Mercator, 2023)

Figure 11—2: 2022 Water Immersion Specific Gravity Station

(Mercator, 2023)

Procam delivered the palleted core samples to Actlabs where they were prepared and analyzed. Iron content was measured using the Lithium Metaborate fusion technique with wavelength dispersive XRF. Sample preparation at Actlabs was through the laboratory's standard rock preparation protocol that begins with jaw crushing followed by pulverization of a sample split (250g) to generate a pulp having 95% passing 0.074 mm grain size. Further details on iron analysis during the 2020 and 2022 program are provided below in Section 11.2. Actlabs is commercially operated analytical services firm that is ISO 17025 accredited and independent of High Tide and Mercator.

11.2 Sample Analysis

11.2.1 2010 to 2012 Rio Tinto Diamond Drilling Programs

During the 2010, 2011 and 2012 Rio Tinto diamond drilling programs, samples were scanned, dried, and weighed before going through the prep facility at SGS. In the prep facility the samples were crushed to 85% passing 2 mm fraction size and then a representative 1 kg split was taken from the crushed allotment. This subsample was then pulverized to 90% passing 75 microns in size. After the prep was completed the sample was submitted for assay. Mineralized samples (>10% iron oxide IF) underwent Whole Rock Analysis by XRF (Lithium Borate Fusion) with LOI 450°C, LOI 650°C, and LOI 1000°C to test the quantity of iron and deleterious elements. These same samples also underwent 50 element 4 acid digest ICP-OES and MS analysis to scan for non-targeted mineralization that might be of interest. Unmineralized samples (<10% iron oxides IF plus schist, quartzite, and gabbro lithologies) underwent the same ICP analysis to scan for unexpected mineralization. SGS is a commercially operated analytical services firm that is ISO 17025 accredited.

11.2.2 2020-22 High Tide Resources Diamond Drilling Programs

During the 2020 and 2022 High Tide diamond drilling programs, sample shipments were delivered to ActLabs where they were prepared and analyzed. Iron content was measured using the Lithium Metaborate fusion technique. Prior to fusion, the loss on ignition (LOI), which includes H_2O+, CO_2, S and other volatiles, is determined from the weight loss after roasting the sample. The fusion disk is made by mixing the roasted sample with a combination of lithium metaborate and lithium tetraborate. Samples are fused in Pt crucibles using an automated crucible fluxer and automatically poured into Pt molds for casting. Samples are analyzed on a Panalytical Axios Advanced wavelength dispersive XRF. Sample preparation was through the laboratory's standard rock preparation protocol that begins with jaw crushing followed by pulverization of a sample split (250g) to generate a pulp having 95% passing 0.074 mm grain size. Magnetite was determined using a Satamagan instrument. For QA/QC purposes, each shipment contained at minimum two certified blanks, two certified standards, and one duplicate. Actlabs is commercially operated analytical services firm that is ISO 17025 accredited and independent of High Tide and Mercator.

11.3 Rio Tinto QA/QC Program (2010-2012 Diamond Drilling Programs)

Rio Tinto inserted blanks, duplicates and standards into the sampling sequence at a frequency of approximately 1 in every 10 samples. Blanks consisted of locally collected quartzite. Standards consisted of professional manufactured sample material of high, medium and low iron grades. Duplicate samples consisted of the remaining half of core not used in the original sample.

Mercator reviewed the results for the QA/QC program for the Rio Tinto's 2010 to 2012 drilling program and found the procedures and results satisfactory. Sample numbers of control samples and the iron grades of the three standards used were not available within the publicly available assessment reports filed by Rio Tinto, Mercator was able to determine the control samples from the lab certificates as every tenth sample ending in a last digit of '0'. Based on sample weight and SiO2 %, it was possible to determine which samples were blanks, which were standards, and which were core duplicates. Blank samples had a consistently low Fe2O3 content below 1.00 wt. %. Standards had relatively consistent values. And half-core duplicate pairs had a correlation coefficient (R^2) of 0.96.

11.4 High Tide QA/QC Program (2020-2022 Diamond Drilling Programs)

11.4.1 Overview

In 2020, Smee & Associates Consulting Ltd. (North Vancouver, BC, Canada) prepared four certified reference standards for High Tide from 12 to 16 lb select split drill core samples: Standard A, Standard B, Standard C and Standard D. The certified mean values for total iron provided for the four certified reference materials are provided in Table 11.1.

Table 11-1: Certified Mean FeT % for Standards

Reference Material	Certified Mean FeT %	Number of Samples Submitted 2020	Number of Samples Submitted 2022
Standard A	21.02 ± 0.25	8	14
Standard B	20.35 ± 0.31	10	13
Standard C	25.40 ± 0.22	8	12
Standard D	4.31 ± 0.08	26	39

High Tide's QA/QC insertions were designed by Mercator, with certified reference Standards A, B and C submitted as blind certified reference standards and certified reference Standard D, which has a much lower iron content, submitted as a blind blank sample. Blanks and standards were inserted at a rate of every alternating 10th sample, with Standards A, B and C selected randomly. Standards and blanks were pre-made by inserting them into marked sample bags and peeling the only identifying sticker on the pulp material package and recorded into the original sample booklet.

Duplicate quarter core, coarse reject and pulp check sampling program during the 2022 diamond drilling program. Samples selected for quarter core sampling were split into quarter core samples during the core splitting process. Half core was retained in the box, while the two quarter core samples was submitted with different sample numbers within the submitted sample stream. Quarter core duplicates were analyzed to test the heterogeneity of the samples. Duplicate quarter core samples were systematically analyzed within the laboratory sample sequence to every 40th sample (or nearby section amenable to sampling). Actlabs was also requested to analyze pulp split and coarse reject splits at a frequency of 1 in every 40 samples (offset from each other and all other QA/QC samples).

Samples were inserted into the sample bag order in sequence and stored in a heavy-duty bulk bag on a pallet for shipping. Records of reference standard and blank insertions were maintained as part of the core sampling and logging QA/QC protocols.

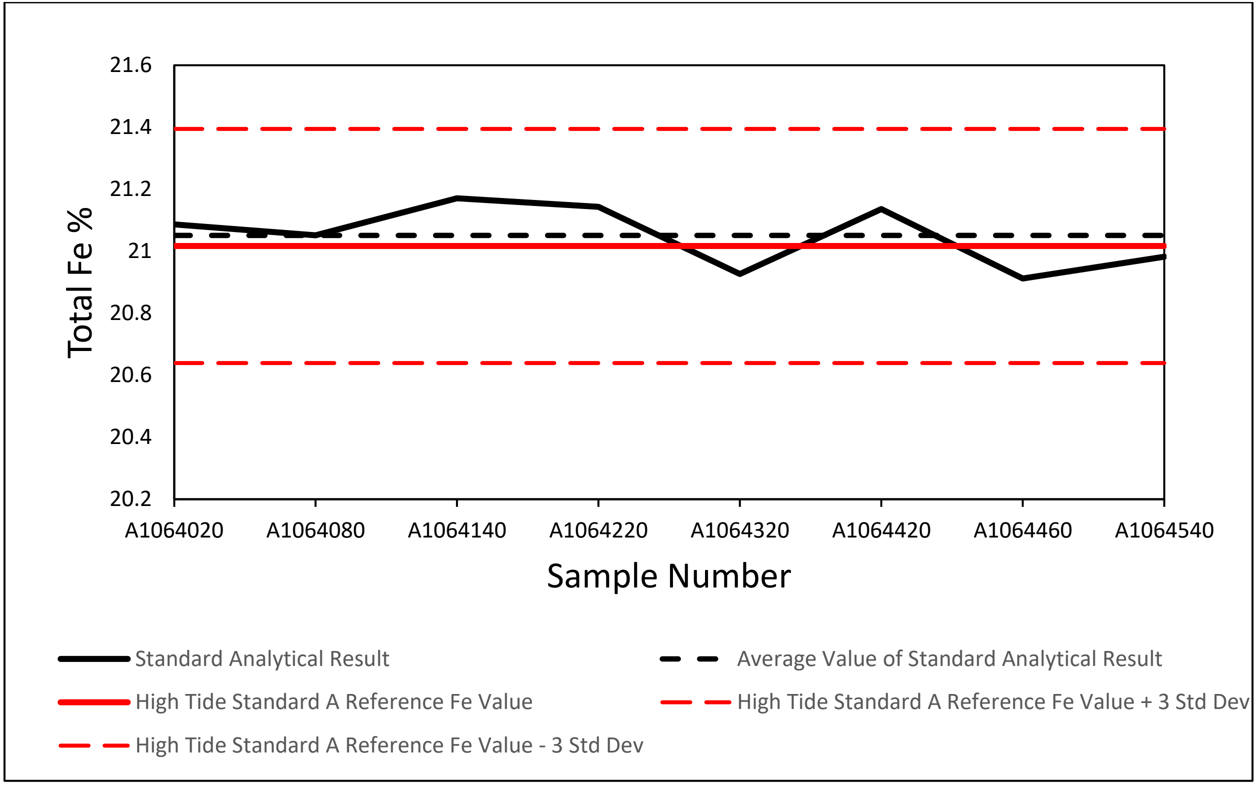
11.4.2 2020 QA/QC Program Results

In total, 26 blind certified reference standards and 26 blind blank samples were submitted to Actlabs to be analyzed. Reference samples were systematically inserted into the laboratory sample shipment sequence by Mercator staff following the insertion procedure described above. Records of reference standard and blank insertions were maintained as part of the core sampling and logging QA/QC protocols.

The total iron results for the three submitted reference standards are plotted in Figures 11-3 to 11-5. All total iron results for Standard A and Standard B fall within two standard deviations of the respective mean certified values and the majority of total iron results for Standard C also fall within two standard deviations of mean certified value. Standard A returned values averaging 21.05% total iron, or 0.2% above the mean certified value; Standard B returned values averaging 20.40% total iron, or 0.2% above the mean certified value; and Standard C returned values averaging 25.47% total iron, or 0.3% above the mean certified value. Only one sample of Standard C returned a value (25.74% total iron) slightly above the two standard deviations range, but within the acceptable three standard deviation range. The time sequence represented by all reference standard analyses shows that results progressively trend from generally above certified mean values early in the program to slightly below mean values in the latter part of the program. However, this trend occurs largely within the two standard deviations control limits. A clear explanation for the trend is not readily apparent but it is not considered to have imparted a significant bias within the core data set. Further investigation of this trend is warranted.

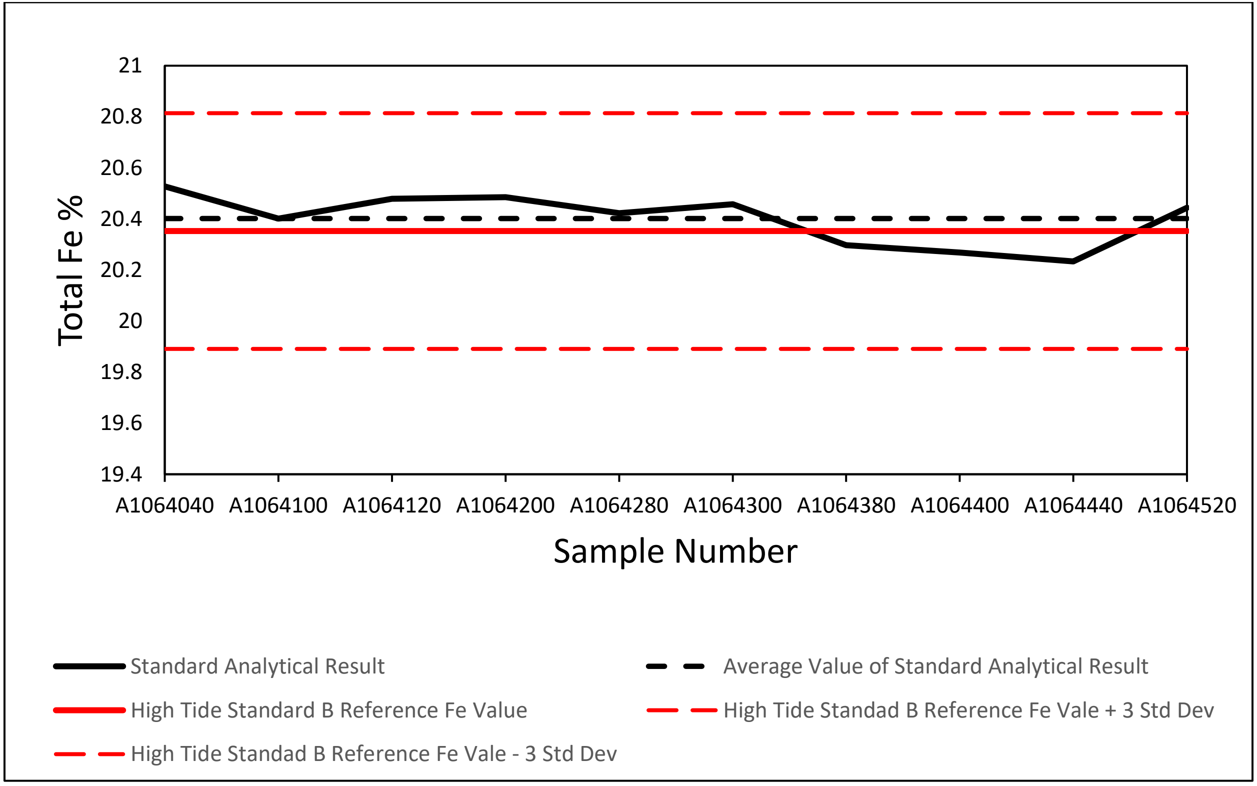
The total iron results for the submitted blank material (Standard D) are plotted in Figure 11-6. The total iron results for the blank samples are slightly higher than the certified mean value for Standard D but acceptable for a blank sample. The average returned value is 4.38% total iron which is approximately 1.62% above the certified mean value for Standard D of 4.31 % +-.08%. Eight of the submitted blank samples returned values above two standard deviations of the certified mean value with the highest value being 4.63%, or approximately 7.42% above the certified mean value but still within the mean +/- 3 standard deviations limits for the blank sample material. Overall, results of the blank sample program demonstrate that sample preparation stage cross contamination is not a significant issue within the 2020 core sample dataset. However, spiking of results above the 2 standard deviations control limits is locally notable and should be investigated further to assess potential explanations for such results. Spiking could represent a non-systematic, low-level cross contamination effect but also might indicate heterogeneity within the volume of previously prepared blank sample material submitted for analysis.

Figure 11—3: 2020 Standard A Sample Results for Total Fe (N= 8)



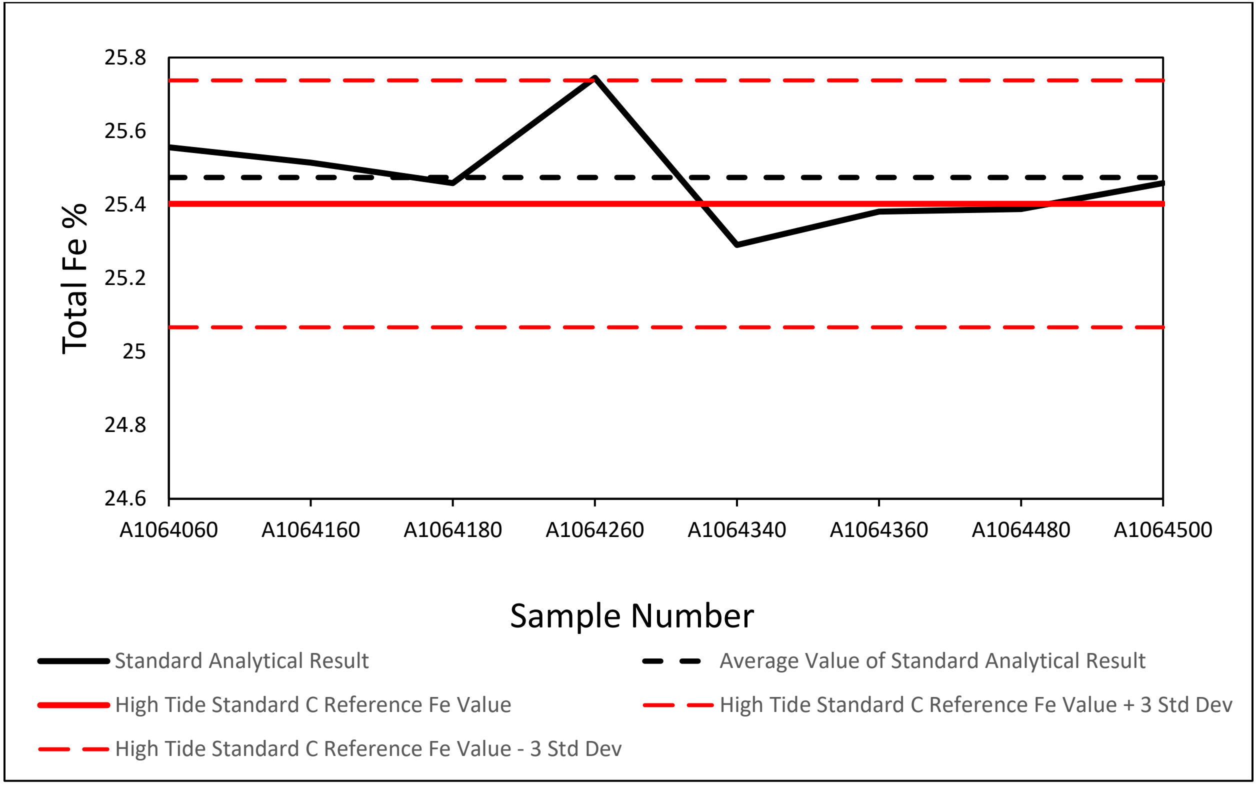
(Mercator, 2020)

Figure 11—4: 2020 Standard B Sample Results for Total Iron (N= 10)



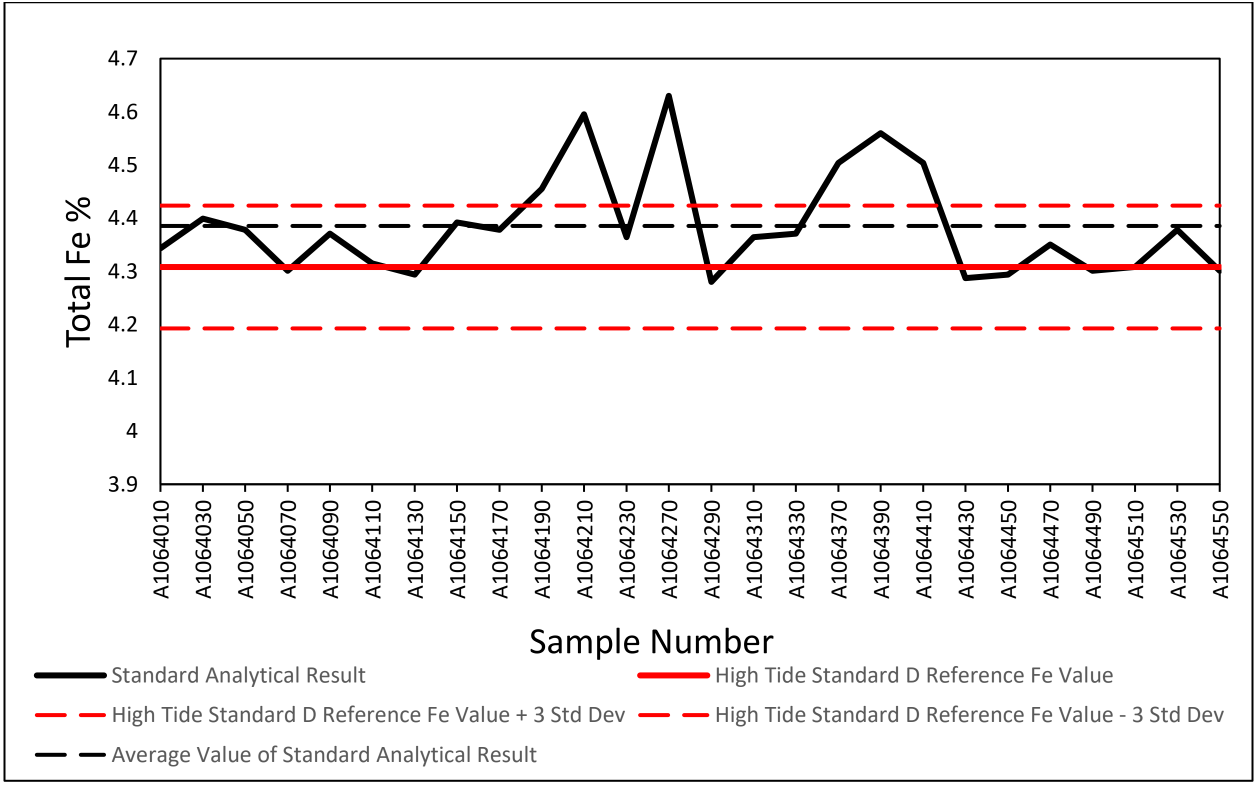
(Mercator, 2020)

Figure 11—5: 2020 Standard C Sample Results for Total Iron (N= 8)



(Mercator, 2020)

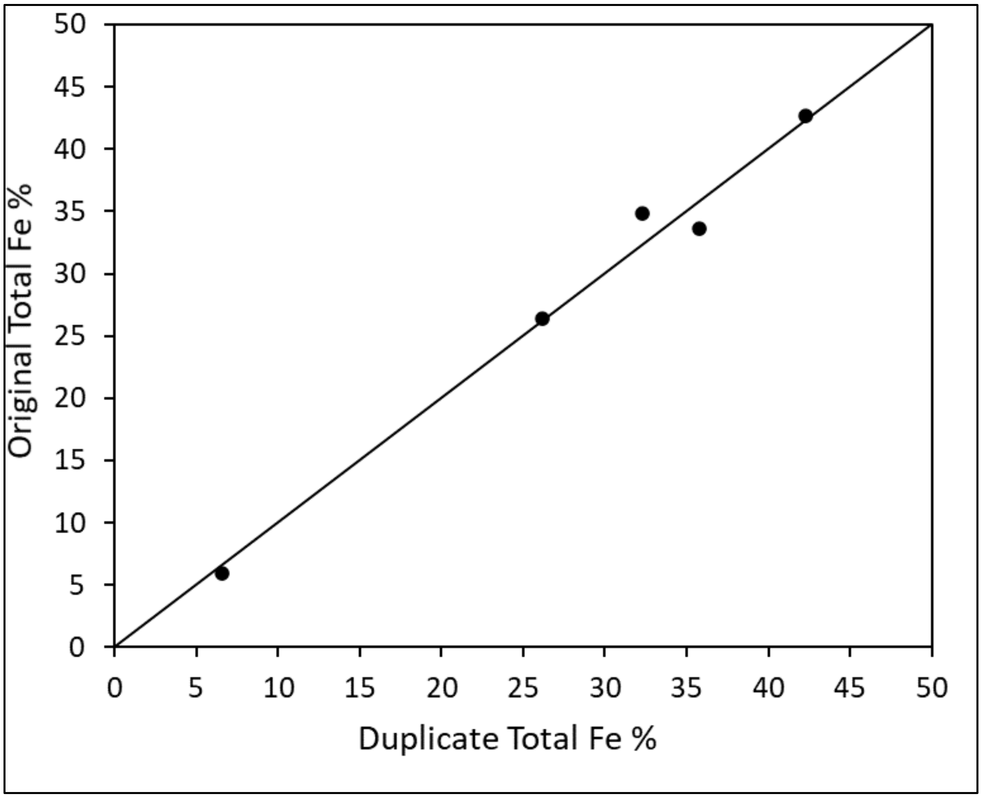
Figure 11—6: 2020 Blank (Standard D) Sample Results for Total Iron (N= 26)



(Mercator, 2020)

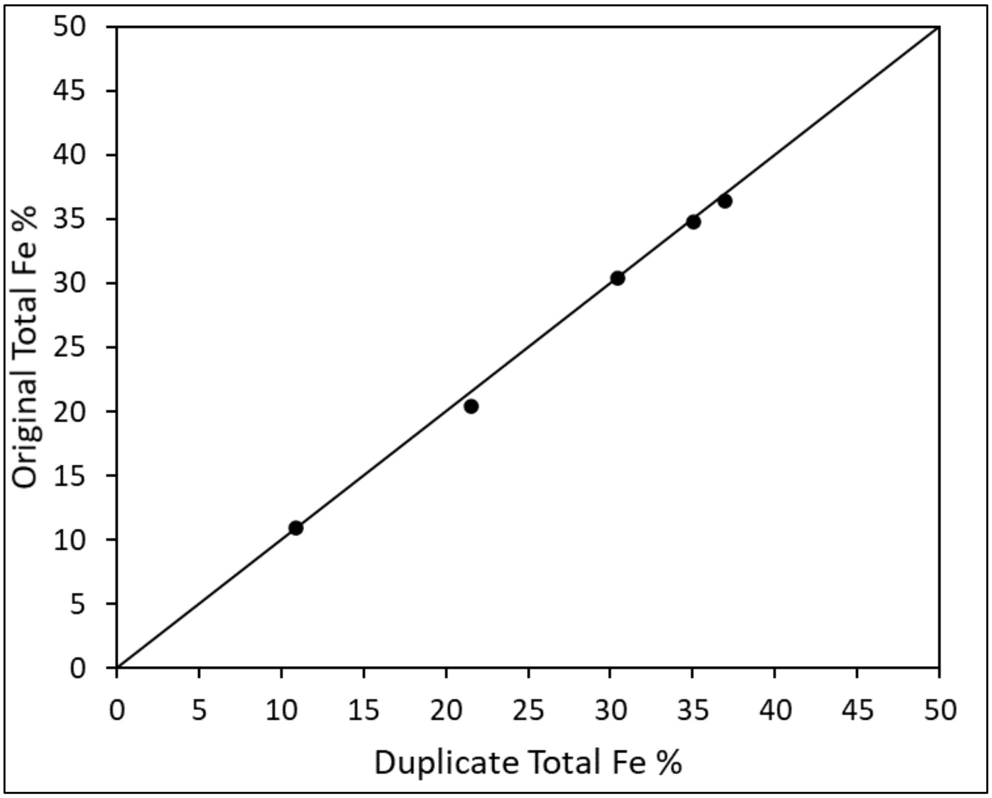
High Tide also carried out a duplicate quarter core and pulp check sampling program by summitting quarter core samples and by requesting Actlabs to create and analyze duplicate pulp splits on requested samples. This was done to check on laboratory precision during the 2020 diamond drilling program. A total of 5 duplicate analyses of quarter core and 5 pulp splits were processed during the 2020 drilling program. Duplicate quarter core and pulp splits were systematically analyzed within the laboratory sample sequence to ensure at least one duplicate pulp was analyzed for every 95th sample. Total iron results for duplicate – original pairs are presented in Figure 11-7 and 11-8. The correlation coefficient (R^2) between the quarter core duplicate – original pairs for total iron is 0.99. The correlation coefficient (R^2) between the pulp split duplicate – original pairs for total iron is 1.00. The results for both sets of duplicates cluster along the 1:1 equality line in Figures 11-7 and 11-8. While the dataset is limited in extent, the high correlation factor indicates that good precision exists for the total iron results.

Figure 11—7: 2020 Quarter Core Duplicate Sample Results for FeT% (N = 5)



(Mercator, 2020)

Figure 11—8: 2020 Duplicate Pulp Split Sample Results for FeT % (N = 5)



(Mercator, 2020)

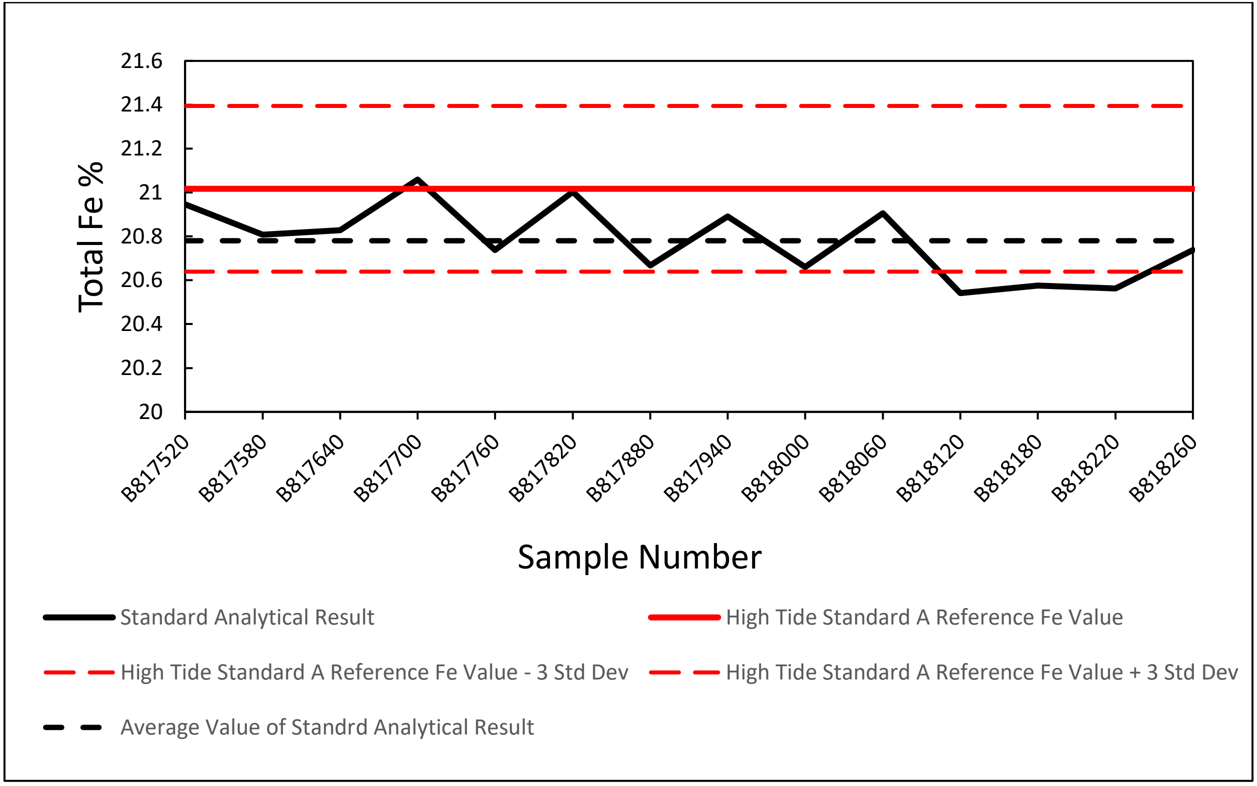
11.4.3 2022 QA/QC Program Results

In total, 39 blind certified reference standards and 39 blind blank samples were submitted to Actlabs to be analyzed during the 2022 diamond drilling program. Reference samples were selected at random by Mercator staff and systematically inserted into the laboratory sample shipment sequence following the insertion procedure described above. Records of reference standard and blank insertions were maintained as part of the core sampling and logging QA/QC protocols.

The total iron results for the three submitted reference standards are plotted in Figures 11-9 to 11-11. Although the results for the majority of blind standards fall within the acceptable ±3 standard deviation range, total iron results for Standard A and Standard C had a lower base level than observed during the 2020 diamond drill program. Standard A returned values averaging 20.78% total iron, or 0.24% below the mean certified value; and Standard C returned values averaging 25.23% total iron, or 0.16% below the mean certified value. Actlabs was requested to reanalyze the standards with results that occurred outside 3 standard deviation, which includes 3 “Standard A”’s and 1 “Standard C”. The reanalyses yielded results that were near identical to the original analysis, suggesting that the low bias in Standards A and C is related to the standards themselves, not the analytical procedures at Actlabs. It is likely that the standard pulp in the non-vacuum sealed envelopes reacted with the atmosphere, either hydrating or oxidizing the material, adding weight, and resulting in an apparent decrease in total iron. Standard B, on the other hand, returned values near the certified value, averaging 20.37 wt.% total iron or just 0.02% above the mean certified value.

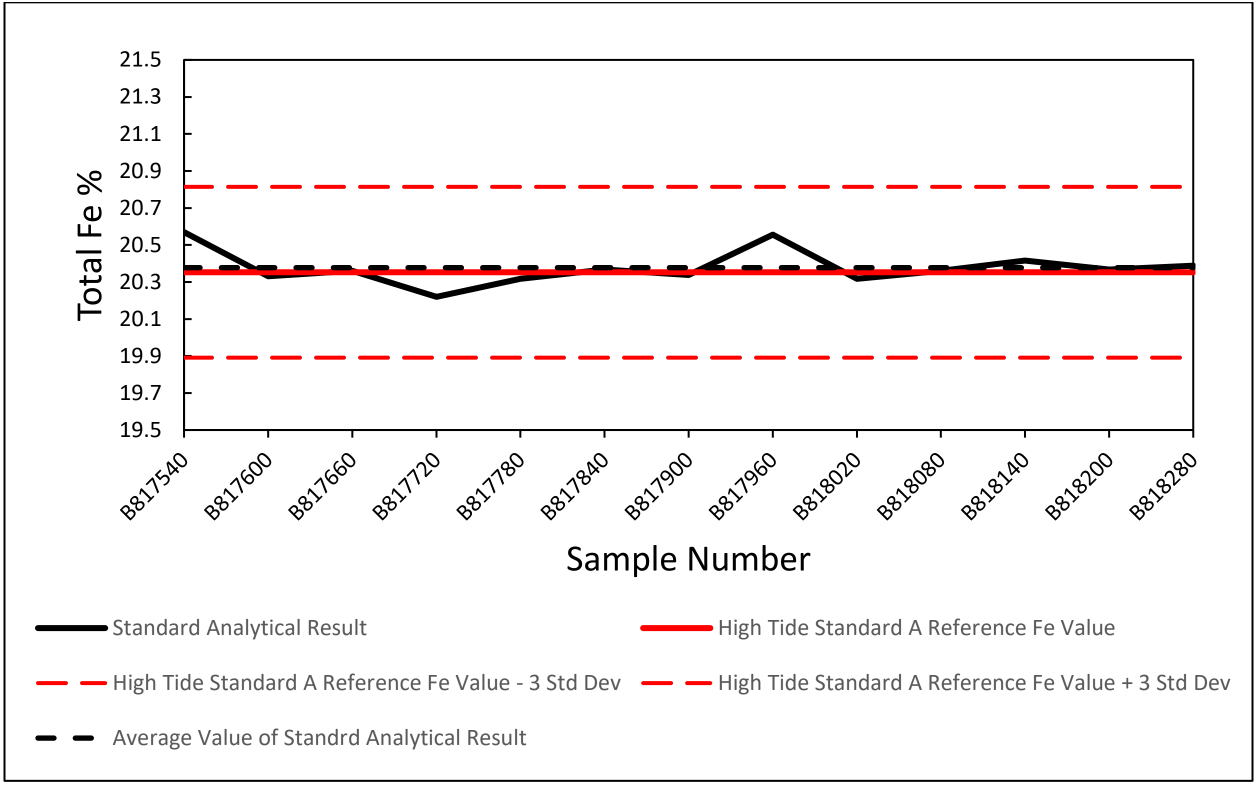
The total iron results for the submitted blank material (Standard D) are plotted in Figure 11-12. The average returned value is 4.32% total iron, close to the certified mean value for Standard D of 4.31 % +- .08%. Only three submitted blank samples returned values above three standard deviations of the certified mean value with the highest value being 4.64%. Overall, results of the blank sample program are interpreted as indicating that sample preparation stage cross contamination is not a significant issue within the 2022 core sample dataset and should have no significant impact on the iron grade or the Mineral Resource estimate being reported here. However, spiking of results above the 3 standard deviations control limits is locally notable and could be investigated further to assess potential explanations for such results. Spiking could represent a non-systematic, low-level cross contamination effect but also might indicate heterogeneity within the volume of previously prepared blank sample material submitted for analysis.

Figure 11—9: 2022 Standard A Sample Results for Total Fe (N= 14)



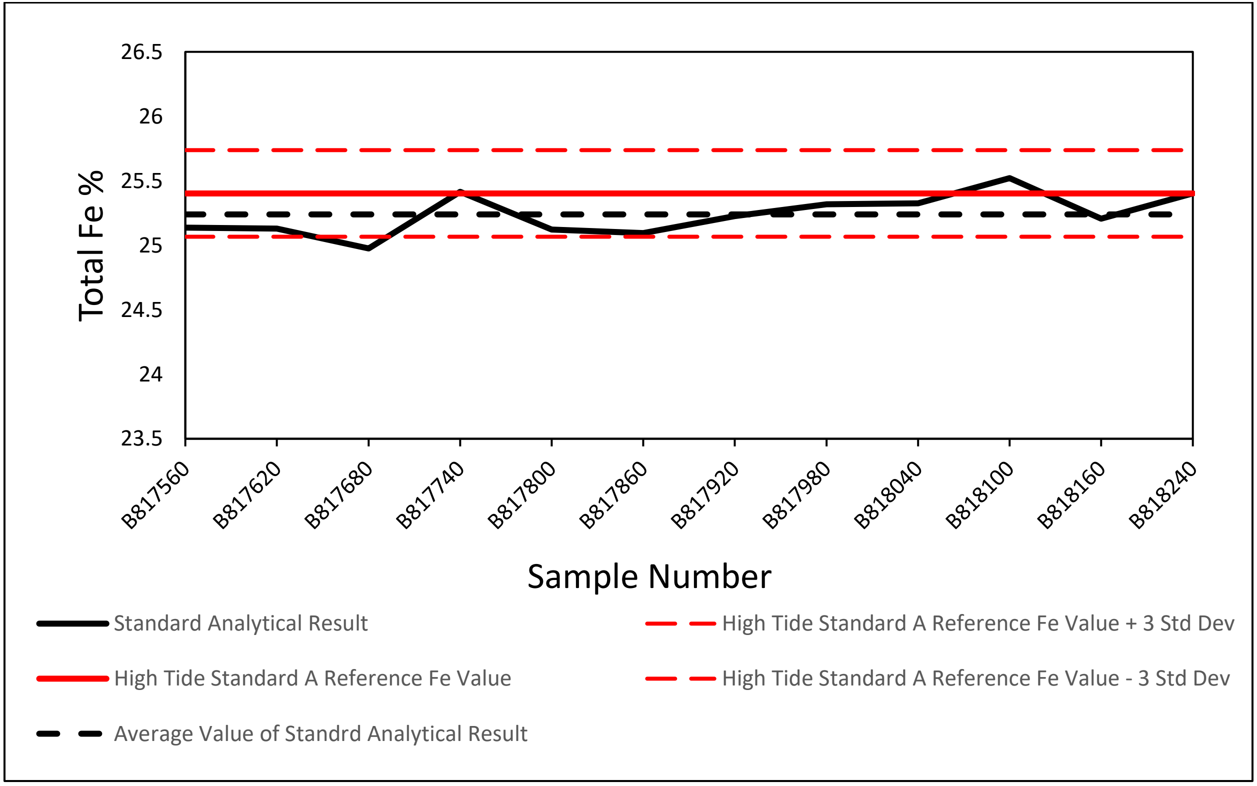
(Mercator, 2023)

Figure 11—10: 2022 Standard B Sample Results for Total Iron (N= 13)



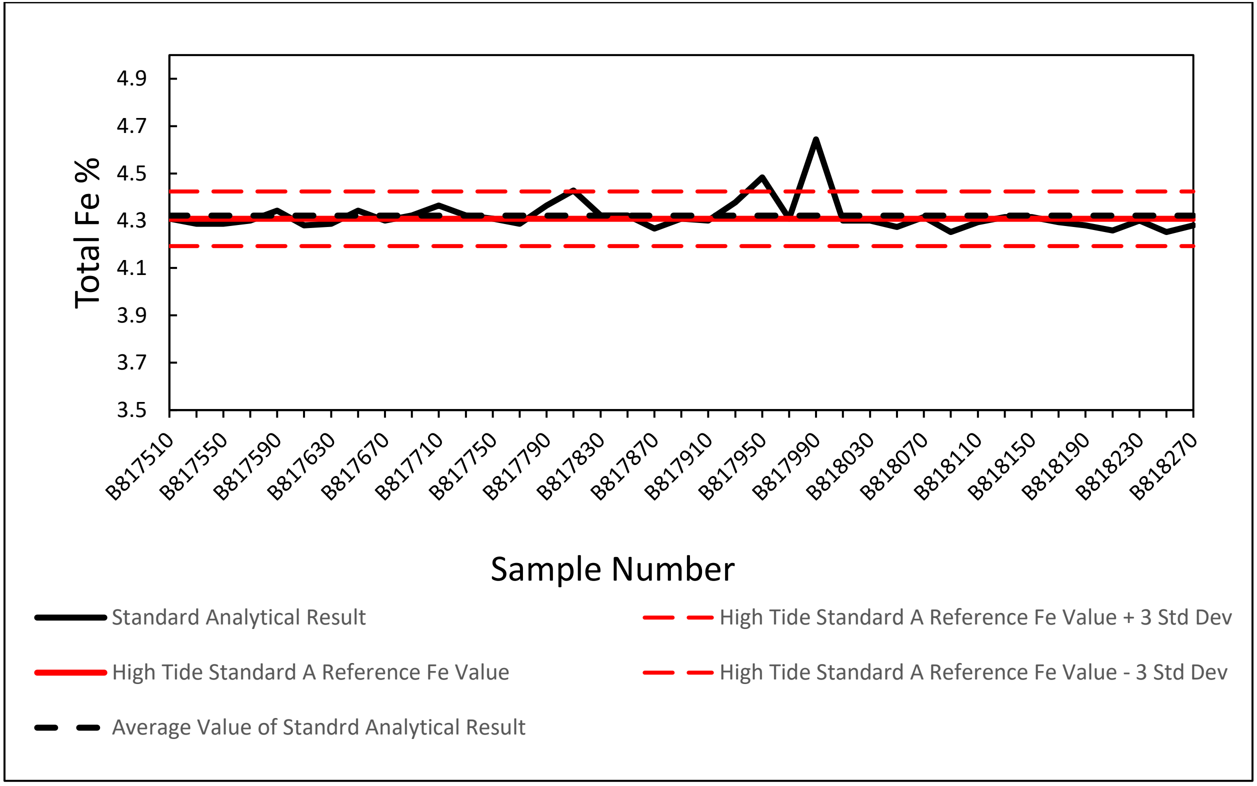
(Mercator, 2023)

Figure 11—11: 2022 Standard C Sample Results for Total Iron (N= 13)



(Mercator, 2023)

Figure 11—12: 2022 Blank (Standard D) Sample Results for Total Iron (N= 39)



(Mercator, 2023)

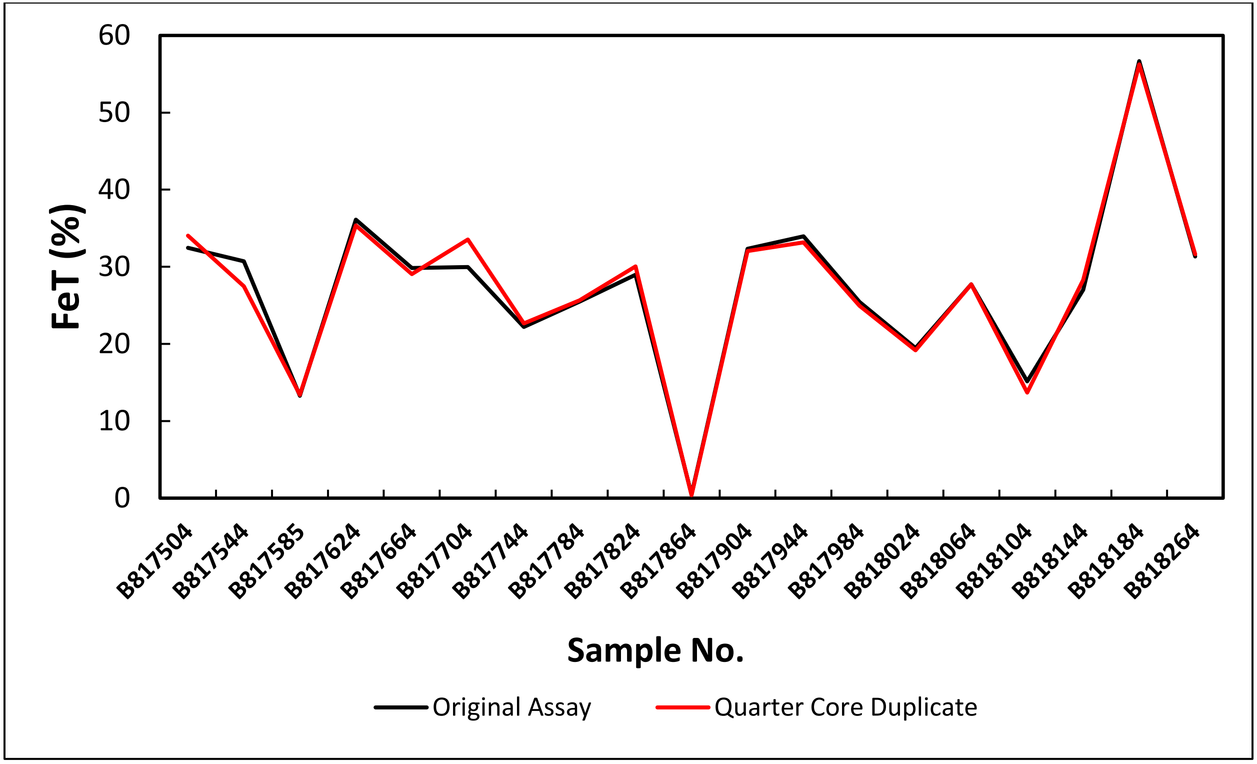
A total of 19 quarter core duplicate samples were submitted to Actlabs during the 2022 drilling program. Total iron results for quarter core duplicate – original pairs are presented in Figure 11-13. The correlation coefficient (R^2) between the duplicate – original pairs for total iron is 0.985 and the distribution of the results group along the 1:1 equality line, suggesting little variation of iron distribution within the sampled rock.

Mercator requested Actlabs to create and analyze duplicate coarse reject and pulp splits by submitted a list of requested samples. This was done to check on laboratory preparation procedures and precision during the 2022 diamond drilling program. A total of 19 duplicate coarse reject and 18 duplicate pulp splits were processed during the 2022 drilling program. Coarse reject splits and pulp splits were systematically analyzed within the laboratory sample sequence to ensure at least one coarse reject split and one pulp split was analyzed for every 95th sample. Total Fe results for coarse reject duplicate – original pairs are presented in Figure 11-14. The correlation coefficient (R^2) between the coarse reject duplicate – original pairs for total iron is 0.997, suggesting that there is no bias associated with contamination during the sample preparation process.

Total iron results for pulp split duplicate – original pairs are presented in Figure 11-15. The correlation coefficient (R^2) between the coarse reject duplicate – original pairs for total iron is 0.9995. The high correlation factor indicates that good precision exists for the total iron results.

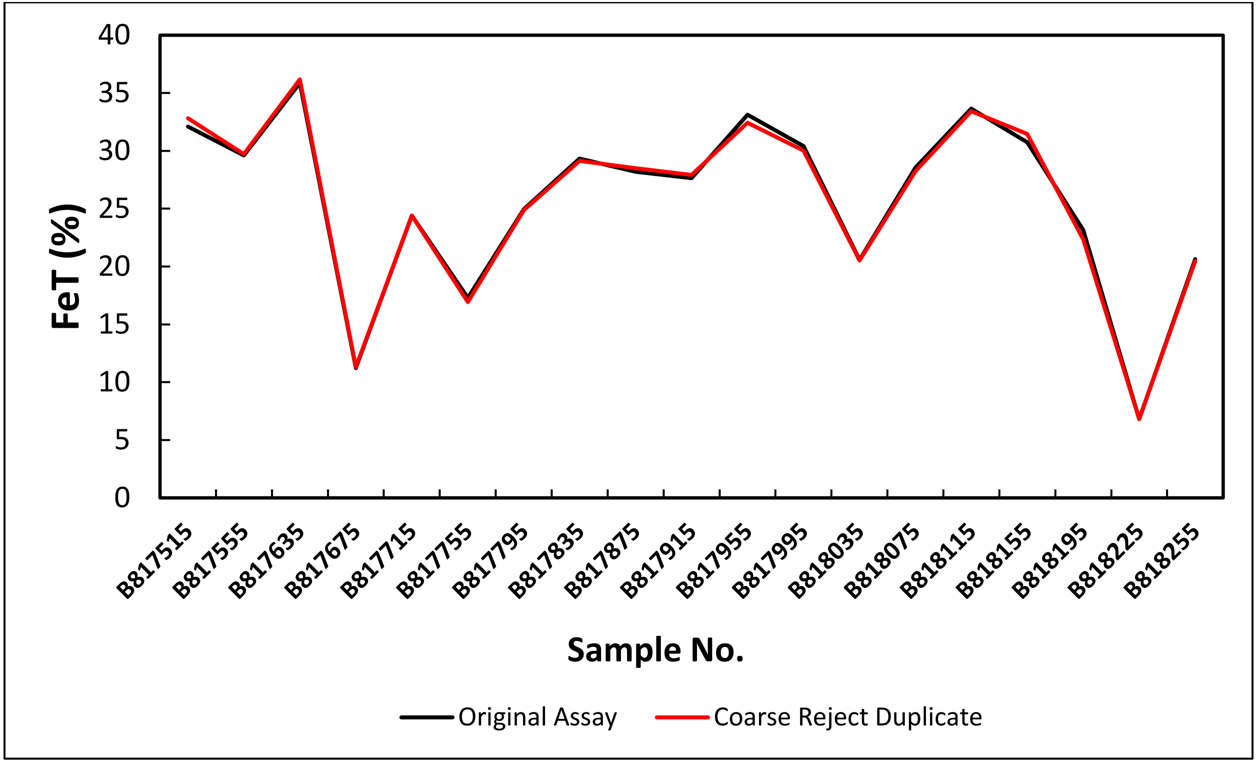
In addition to the duplicates analyzed at Actlabs, 7 duplicate pulp splits were submitted to ALS Canada Ltd. (ALS) in North Vancouver, BC during the 2022 drilling program. ALS analyzed the pulps using a similar analytical method for total iron (%) as Actlabs, lithium borate fusion with XRF finish (CODE ME_XRF21u). ALS is a commercially operated analytical services firm that is ISO/IEC 17025:2017 accredited and independent of High Tide and Mercator. The Actlabs and ALS results are compared in Figures 11-16. The correlation coefficient (R^2) between the duplicate pairs is 0.9962, supporting a high accuracy for the total iron assay results.

Figure 11—13: 2022 Quarter Core Duplicate Sample Results for Total Fe% (N = 19)



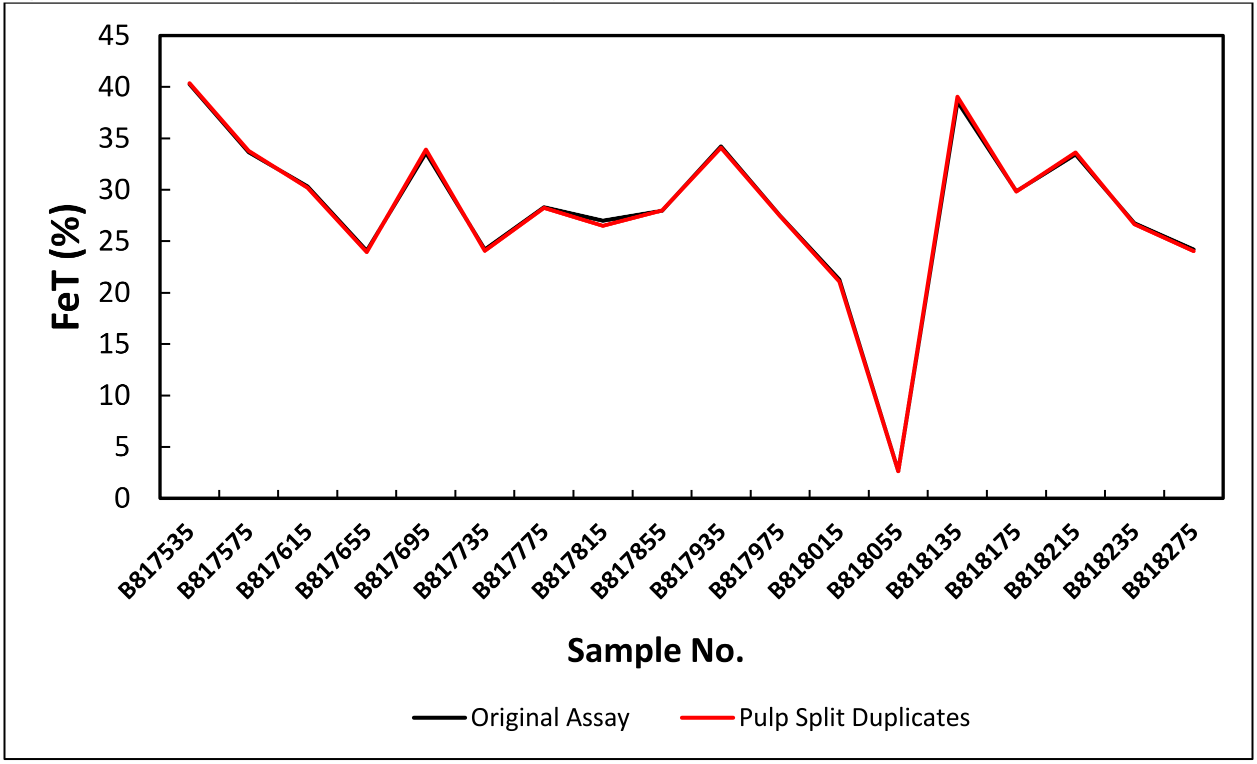
(Mercator, 2023)

Figure 11—14: 2022 Coarse Reject Duplicate Sample Results for Total Fe% (N = 19)



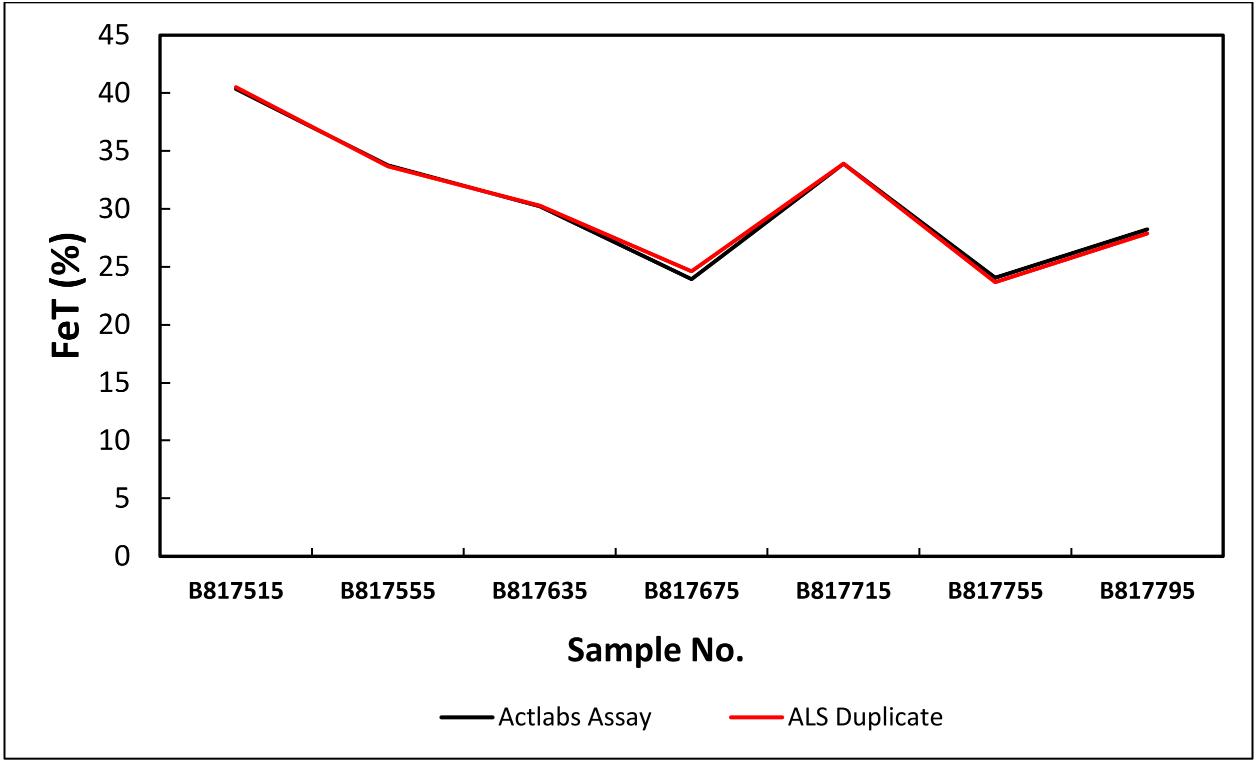
(Mercator, 2023)

Figure 11—15: 2022 Pulp Split Duplicate Sample Results for Total Fe% (N = 18)



(Mercator, 2023)

Figure 11—16: Laboratory Duplicate Sample Results for Total Fe% (N = 7)

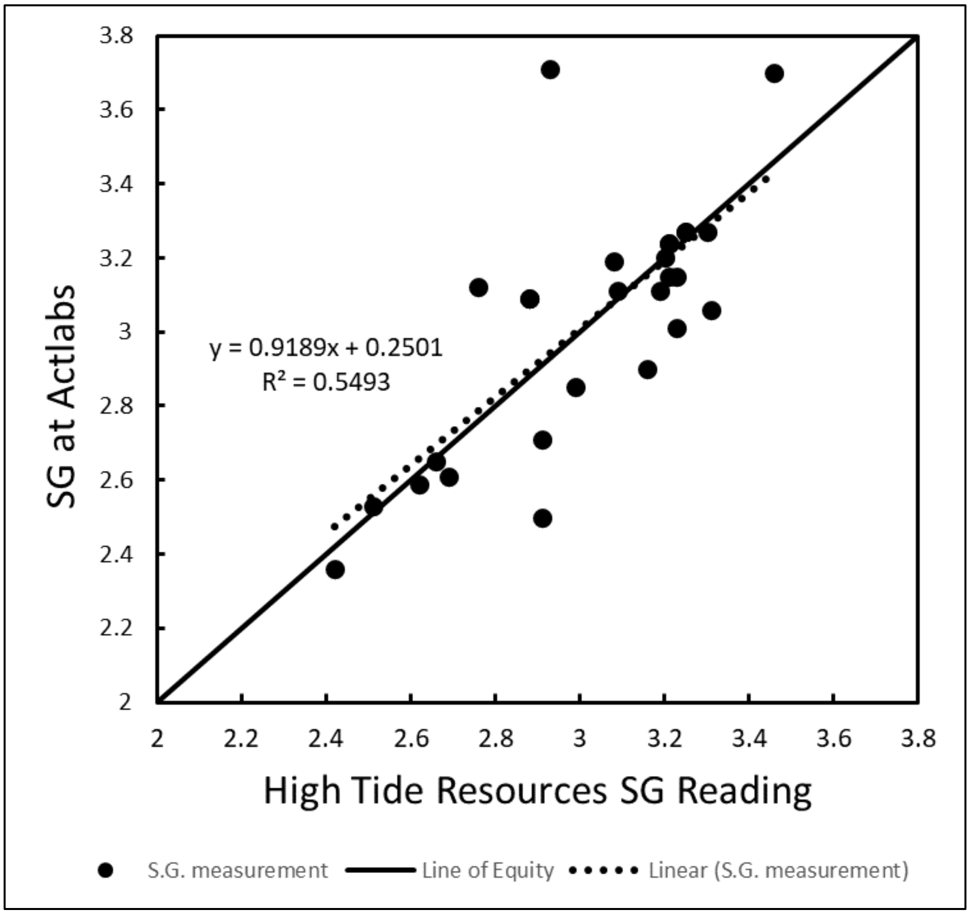


(Mercator, 2023)

11.5 2022 Specific Gravity QA/QC

In addition to SG readings taken by High Tide geologists for every sample interval during the 2022 diamond drilling program, a subset of 27 samples were requested to be analyzed by Actlabs for SG by water immersion using a wax coating (analytical code RX-16-W). Samples analyzed by Actlabs were selected to capture each major lithology within each 2022 drill hole and occur at approximately every 20th sample within the sample stream. The Actlab SG results for these 27 samples are compared to the High Tide SG measurements in Figure 11-17. The clustering of samples along the line of equity and good agreement with the regression line and line of equity support good accuracy of the SG measurements. The lower R^2 of the regression line and average residual value of 0.15 suggest a high variation in SG within the nominal 3 m sample intervals. The average variation of SG between High Tide and Actlab measurements is 5 % with a minimum variation of 0 % and a maximum variation of 21 %. Both High Tide and Actlabs randomly selected a piece of drill core from the sample bag for SG measurement and the high variation between measurements suggests a high variation in alteration within some samples. No systematic bias is observed within the SG dataset.

Figure 11—17: Results of Specific Gravity Check Samples.



(Mercator, 2023)

11.6 QP's Opinion on Sample Preparation, QA/QC Protocols, and Analytical Methods

The QP is of the opinion that results of the various data validation program components discussed above indicate that industry standard levels of technical documentation and detail are evident in records of the exploration programs carried out by High Tide to date on their exploration licences in Labrador West. Site visit field observations also show that lithological and other field attributes were being accurately recorded by field staff and that industry standard QA/QC protocols were consistently applied from core logging and sampling to laboratory analysis for the 2022 diamond drilling program. Results of the 2020 and 2022 core drilling QA/QC program are interpreted as indicating that associated data are of acceptable quality.

12.0 DATA VERIFICATION

12.1 Overview

Data verification procedures carried out by the QP for the Project consisted of three main components:

(1) Review of public record and internal source documents cited by High Tide with respect to key geological interpretations, previously identified geochemical or geophysical anomalies, and historical drilling results that support the arguments for iron potential on the Project;

(2) Completion of a site visit to the Project and the core shed facility during the 2022 diamond drilling program between the dates of June 21 to 30, 2022, which included a visitation to each 2022 drill site and verification of logging and sampling procedures. No issues were identified that negatively impact the findings and conclusions of this Report.

(3) Validation of digital drilling files against source information such as laboratory reports and field data. During this verification process diamond drilling, core sampling, and QA/QC procedures were observed to assess the relative quality of exploration data to be used for geological interpretation and modelling purposes.

Mercator staff were responsible for data compilation, designing and implementing the 2020 and 2022 exploration program. Mercator staff also interpreted the data sets for drill targeting and modelling purposes using mining industry standards and CIM Mineral Exploration Best Practice Guidelines. Mercator staff completed data verification procedures throughout the entire process including review of QA/QC procedures and results.

Review of field procedures showed that a coordination error internal to High Tide at the start of the 2020 drilling program resulted in drill holes 20LB0056 and 20LB0057 being completed at locations that did not optimize their distribution relative to the previously drilled historical drill holes and other planned 2020 holes. Notwithstanding this issue, both holes provide good quality geological and analytical information that can be used by High Tide to assess the property’s iron potential. The net effect of this factor was that spacing between these two holes and neighbouring historical holes was reduced from originally planned separations.

Core review by Mercator staff during logging procedures identified that core loss from some cored sections is substantial. These intervals were clearly logged are readily apparent from the TCR values recorded in the core logs and drilling database. While localized, these intervals have greater uncertainty with respect to associated analytical results due to associated reduced core volumes and a potential sampling bias introduced by the core loss factor. Importantly, core loss is not considered to be an issue that pervasively affected the 2020 and 2022 drilling program. Observed core loss levels are consistent with those recorded earlier for historical core drilling by Rio Tinto in the Project area.

12.2 Review of Supporting Documents and Assessment Reports

The QP obtained copies of relevant historical assessment work reporting as part of the data validation procedures. In addition, internal documents such as technical presentations summarizing exploration program results were also made available. Key aspects of this historical reporting are in part referenced in this Report and were obtained through online searching of historic assessment reports available through the provincial government GeoAtlas interactive online database.

Results of the reference documentation checking program showed that in all instances considered, digital and written records presented by High Tide and Mercator accurately reflect content of referenced source documents.

12.3 Site Visit and Review of Drilling Procedures and Data Results

QP Ryan Kressall completed a site visit to the Project between June 21 and 30, 2022 during the 2022 diamond drilling program. R. Kressall completed multiple visits to the property during this visit including a site check to each of the 2022 drill hole sites on June 29, 2022. All seven 2022 drill holes were observed and staked with a large wooden post. The QP noted no obstacles to complete further drilling of the project.

QP R. Kressall also visited the drill core facility between July 16th and 30th, 2021 for two weeks, where he reviewed and sampled select drill hole intervals from 2010 to 2012 to create a representative drill core library and sampled two entire drill holes (12LB0045 and 20LB0057) for metallurgically testing.

The QP verified the data collection and QA/QC procedures during the 2022 diamond drilling program in the field including collar locations, sampling procedures, and the insertion of certified standards, blanks, and duplicates. A complete validation of the geological and assay database was also completed including checking for overlapping intervals, missing collar data, negative widths, and results past the specified maximum depth in the collar table. Downhole survey data was checked for overlapping intervals, surveys beyond drill hole depths, duplicate entries, survey intervals past the specified maximum depth in the collar table and/or any abnormal dips and azimuths. There were no issues identified with the geological, collar, assay, and downhole survey records other than those issues identified above.

The QA/QC program applied to the 2022 core drilling program included submission of certified reference materials (standards), blank samples, quarter core duplicate samples and duplicate pulp split samples. Results of all programs were described previously in Section 11. The QP has interpreted the QA/QC program results as indicating that analytical data for the 2022 drilling program are of acceptable quality.

Alan Phillipe, a former employee of Mercator staff, also completed a site visit of the Project between July 26 and September 3, 2020, including field checking of historical drill holes and review of historical drill core from immediate area of the 2020 drilling program (11LB0027, 11LB0029, 11LB0030 and 12LB0045). At least one caved drill hole collar (11LB0027) was verified.

12.4 Authors' Opinion on Data Verification

The QP is of the opinion that results of the various data validation program components discussed above indicate that industry standard levels of technical documentation and detail are evident in records of the exploration programs carried out by High Tide to date on their exploration licences in Labrador West. The site visit field observations show that lithological and other field attributes were accurately recorded by field staff and that industry standard QA/QC protocols have been consistently applied for all aspects of High Tide's diamond drilling core sampling programs.

13.0 MINERAL PROCESSING AND METALLURGICAL TESTING

13.1 Introduction

High Tide mandated BBA to conduct a review of the metallurgical testwork conducted to date on samples sourced from drilling campaigns conducted on the Project.

The main objectives of early metallurgical testing are to:

- Understand the minerals of interest's heterogeneity and distribution throughout the Project;
- Determine the rock's hardness in terms of crushing and grinding;
- Determine the minerals of interest's liberation size;
- Determine if a saleable concentrate can be produced via known beneficiation methods;
- Determine the expected recovery rate for economical analysis; and
- Identify potential impurities that could impact the final product's saleability or pose health, safety or environmental risks to the Project.

Two testwork programs were completed to date on samples from the Project.

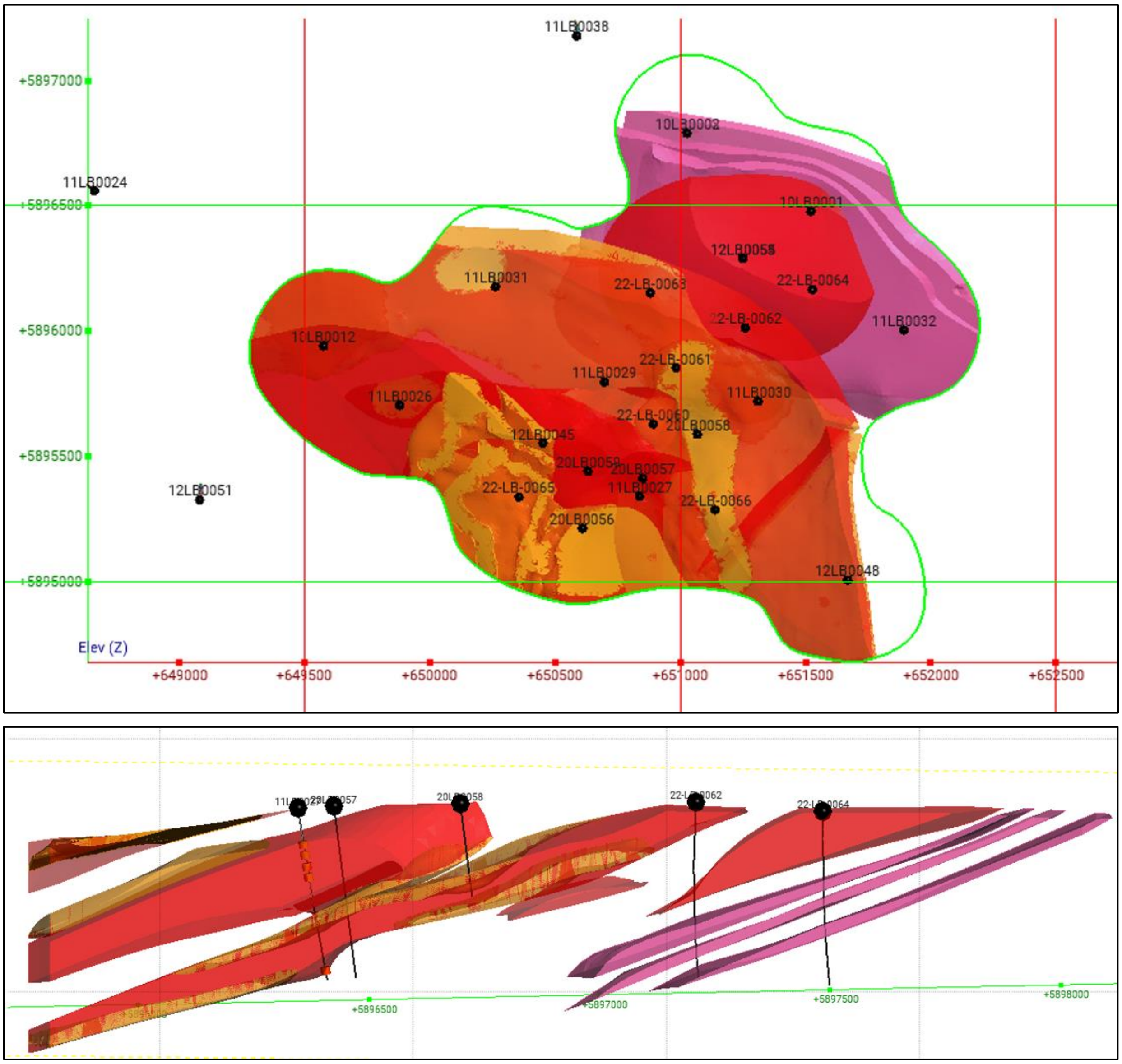
A description of the Project along with a review of the two metallurgical testwork program results are presented in this Report. Recommendations for further testwork are also included.

13.2 Project Description

In the Project area, the Sokoman formation is informally divided into three iron formation lithofacies characterized by different mineralogy and textures: oxide, carbonate, and silicate facies. The rock sequences encountered during the drilling campaigns are predominantly comprised of oxide facies iron formation units containing abundant hematite and lesser amounts of magnetite that typically can be economically recovered and beneficiated to high purity concentrates. However, these units are variably interbedded with silicate and carbonate iron formation facies which are not desirable.

A geological interpretation of the Project is shown in Figure 13-1. A hematite-rich zone (red and coded as HMOX) is shown in the central and southwest area of the project and a magnetite-rich zone (pink and coded as MTOX) is shown to the northeast. Goethite and limonite-rich zones are also shown (orange and coded GLSI/GLCA) at different levels throughout the deposit, mainly in the hematite-rich zone. The complete list of lithological codes used for the mineralogical description of the Project is available in Table 10-6.

Figure 13—1: Geological Interpretation of the Project – Plan View (top) and Cross-Section (bottom)



(Mercator, 2023)

13.3 Historical Testwork

A total of two metallurgical testwork programs were conducted on Project samples. The first was done by Rio Tinto in 2012, and the second by High Tide Resources in 2020. The following section presents a summary of the samples used and a list of the testwork completed to date.

13.3.1 Sample Source

The samples used for metallurgical testing by Rio Tinto in 2012 were sourced from prospect's drill holes. A total of 10 composite samples from Goethite Bay were selected for metallurgical beneficiation testing and five half-core samples were selected for grindability testing. The origin of all samples is presented in Table 13-1 and Table 13-2 and the location of the associated drill holes is shown in Figure 13-1.

Table 13-1: 2012 Beneficiation Samples Source

Sample	Hole	From	To	Weight	East	North	RL	Datum
40200632	11LB0026	56	71	51	649880	5895705	536	UTM And 83 Z 9N
40200634	11LB0027	66.35	81	50	650837	5895342	552	UTM And 83 Z 9N
40200625	11LB0027	87	102	40	650837	5895342	552	UTM And 83 Z 9N
40200635	11LB0027	111	126	59	650837	5895342	552	UTM And 83 Z 9N
40200636	11LB0027	132	147	58	650837	5895342	552	UTM And 83 Z 9N
40200628	11LB0027	321	336	58	650837	5895342	552	UTM And 83 Z 9N
40200637	11LB0029	205	219	28	650697	5895797	573	UTM And 83 Z 9N
40200638	11LB0030	61.6	75	16	651310	5895721	559	UTM And 83 Z 9N
40200639*	11LB0030	90.57	105	53	651310	5895721	559	UTM And 83 Z 9N
40200631*	11LB0030	90.57	105	61	651310	5895721	559	UTM And 83 Z 9N

*40200639 created from coarse rejects and 4020631 created from half core

Table 13-2. 2012 Grindability Samples Source

Sample	Hole	From	To	Weight	East	North	RL	Datum
40200633	11LB0027	66.35	81	67	650837	5895342	552	UTM And 83 Z 9N
40200626	11LB0027	111	126	73	650837	5895342	552	UTM And 83 Z 9N
40200627	11LB0027	132	147	67	650837	5895342	552	UTM And 83 Z 9N
40200629	11LB0029	205	219	55	650697	5895797	573	UTM And 83 Z 9N
40200630	11LB0030	61.6	75	21	651310	5895721	559	UTM And 83 Z 9N

The samples used for metallurgical testing by High Tide in 2020 were sourced from exploration drill cores. A total of 37 composite samples originating from two drill holes were selected for beneficiation testing. The origin of all samples is presented in Table 13-3 and the location of the associated drill holes is shown in Figure 13-1.

Table 13-3: 2020 Beneficiation Samples Source

Sample	Hole	From	To	Weight	Lithology
1064651	20LB0057	23.3	38	10.3	GLSI/MTOX/GLOX
1064652	20LB0057	38	59	10.8	MTOX/GLOX/HMOX
1064653	20LB0057	59	74	10.3	HMOX
1064654	20LB0057	74	89	10.4	HMOX/GLSI
1064655	20LB0057	89	104	12.7	GLSI/HMOX
1064656	20LB0057	104	119	13.5	HMOX
1064657	20LB0057	119	134	10.5	HMOX
1064658	20LB0057	134	149	10.3	MTOX/HMOX
1064659	20LB0057	149	173	10.6	HMOX/QMHT
1064661	20LB0057	173	188	10.6	HMOX
1064660	20LB0057	188	203	10.3	HMOX/QMHT/MTOX
1064662	20LB0057	203	218	10.2	MTOX/GLOX/HMOX
1064663	20LB0057	218	233	12.2	HMOX
1064664	20LB0057	233	248	12.2	HMOX
1064665	20LB0057	248	263	12	HMOX
1064666	20LB0057	263	284	11.1	HMOX/GLOX
1064667	20LB0057	284	305	10.6	HMOX/QMHT
1064668	20LB0057	305	339.5	4.5	HMOX/QMHT
1064669	12LB0045	9.88	15	12.5	HMOX
1064670	12LB0045	18	39.2	13.9	GLCA/GLSI
1064671	12LB0045	39.2	54.2	15.1	QMHT/HMOX
1064672	12LB0045	54.2	70	10.9	HMOX/GLSI/GLCA
1064673	12LB0045	70	82	15.1	HMOX
1064674	12LB0045	82	94	12.2	HMOX
1064675	12LB0045	94	111	14.9	HMOX with minor MTSI
1064676	12LB0045	111	126	14.3	MTSI/GLCA/GLSI
1064677	12LB0045	126	143	10.6	GLCA
1064678	12LB0045	143	159.23	14.6	SILI/GLSI/GLCA
1064679	12LB0045	159.23	165.56	14.1	HMOX
1064680	12LB0045	165.56	186	14.9	HMOX
1064681	12LB0045	186	203	18.3	GLCA/GLOX/GLOX
1064682	12LB0045	203	218	14.2	HMOX
1064683	12LB0045	218	233	10.9	HMOX
1064684	12LB0045	233	240	11	HMOX/GLSI
1064685	12LB0045	242.5	257	16.7	GLSI/GLCA
1064686	12LB0045	257	273	17.2	GLCA
1064687	12LB0045	273	285.28	11	GLCA

13.3.2 Testwork

The 2012 testwork program consisted of:

- Chemical anlaysis on each composite;
- Heavy Liquid Separation test at 3.32 g/cm^3 on material ground at 100% passing 850, 600, 425, 250 and 150 µm respectively;
- Davis Tube testing at 100% passing 250, 150, 75, 53 and 45 µm respectively;
- SAG Power Index grindability test;
- Bond ball mill grindability test for a 150 µm grind.

The 2020 testwork program consisted of:

- Chemical analysis and SAT analysis on each sample;
- Wilfley Table testing on material crushed to 100% passing 425 µm.

13.4 Testwork Results

A summary of the metallurgical results generated to date are presented in the following sections.

13.4.1 Chemical and Mineralogical Characterization

A total of 52 samples were collected and analyzed for chemical composition analysis and metallurgical testing. Of these, 31 were associated with hematite-dominant oxide facies (HMOX) and 21 were associated to silicate and carbonate facies (SICA), which would typically be classified as waste. No samples originated from, or were classified as, magnetite-dominant oxide facies (MTOX). The number of samples falling in each category for each of the programs completed are shown in Table 13-4.

Table 13-4: Sample Count per Iron Formation Type

Type	2012 Beneficiation	2012 Grindability	2020 Beneficiation
HMOX	7	3	21
MTOX/MNOX	0	0	0
SICA	3	2	16
Total	10	5	37

The average chemical content of the samples selected for testing are shown in Table 13-5.

Table 13-5: Average Chemical Analysis by Sample Type

	2012		2020	
	HMOX	**SICA**	**HMOX**	**SICA**
%Fe	31.7 ± 2.94	30.3 ± 3.27	29.5 ± 2.96	28.2 ± 4.02
$\%SiO_2$	52.3 ± 4.06	47.8 ± 7.12	55.4 ± 4.00	54.0 ± 6.20
$\%Al2O_3$	0.32 ± 0.20	0.26 ± 0.02	N/A	N/A
%MgO	0.10 ± 0.06	0.09 ± 0.04	0.13 ± 0.20	0.10 ± 0.14
%CaO	0.03 ± 0.01	0.03 ± 0.02	0.01 ± 0.00	0.03 ± 0.05
%MnO	0.32 ± 0.24	2.46 ± 2.52	0.25 ± 0.21	0.55 ± 0.55
$\%TiO_2$	0.02 ± 0.01	0.01 ± 0.00	N/A	N/A
SAT	N/A	N/A	3.31 ± 1.27	2.76 ± 2.52

13.4.2 Grindability Testwork

The SAG Power Index (SPI®) gives the time in minutes required to grind 2 kg of mineral sample from 80% passing 1,250 µm to 80% passing 170 µm and provides a measure of the hardness of the sample from the perspective of semi-autogenous (SAG) milling. The CEET Crusher Index (CEET Ci) is also measured during the SPI® feed preparation procedure. Results obtained for the 2012 SPI® testwork are shown in Table 13-6.

Table 13-6: 2012 SPI Testwork Results

Sample	**SPI® #**	**CEET Ci**	**SPI®**
		kWh/t	**(minute)**
40200633	1-11863	17.5	5.9
40200626	1-11859	22.4	7.6
40200627	1-11860	18.1	10.8
40200629	1-11861	26.7	16.3
40200630	1-11862	17.5	24.0
Average		20.4	12.9

The Bond ball mill grindability test is used to determine the hardness of a sample from the perspective of ball milling. Results obtained for the 2012 Bond testwork are shown in Table 13-7.

Table 13-7: 2012 Bond Testwork Results

Sample	Grind	F80 (µm)	P80 (µm)	Production	Work Index	Hardness Percentile
	(µm)	(µm)	(µm)	g/revolution	(kWh/t)	%
40200626	150	1151	131	1.92	15.7	65.1
40200627	150	1741	133	2.12	13.3	38.7
40200629	150	1918	130	2.15	12.7	32.3
40200630	150	2238	129	1.99	13.2	37.1
40200633	150	1332	132	1.94	15.0	58.1
Average			131	2.02	14.0	46.3

13.4.3 Beneficiation Testwork

The Davis Tube test (DT) is used for the assessment of the separability of magnetic ores by low-intensity magnetic separation. In the 2012 campaign, tests were conducted at various grind size. A summary of the results obtained on the six hematite-dominant samples tested is presented in Table 13-8.

Table 13-8: 2012 Davis Tube Testwork Results – Average per Grind Size – HMOX Only

Grind Size P100	Yield to Concentrate	Concentrate Grade				
(µm)	(%)	(%Fe)	(%SiO_2)	(%Al_2O_3)	(%C)	(%MnO)
250	3.50	66.20	5.13	0.15	0.03	0.19
150	3.37	68.78	1.88	0.10	0.03	0.18
75	2.61	70.05	0.82	0.07	0.06	0.20
53	1.85	70.60	0.87	0.06	0.12	0.24
45	1.90	69.33	1.55	0.05	0.14	0.26
38	1.80	70.00	2.07	0.06	0.27	0.28

Results indicate a low yield to concentrate which is to be expected as selected samples were hematite dominant and were expected to have a low magnetite content.

The Heavy Liquid Separation test (HLS) is used for the assessment of the separability of ores by gravity or density separation. In the 2012 campaign, tests were conducted at various grind size. A summary of the results obtained on the six hematite-dominant samples tested is presented in Table 13-9.

Table 13-9: 2012 Heavy Liquid Separation Testwork Results – Average per Grind Size - HMOX Only

Grind size P100	Yield to -150µm	Yield to Concentrate	Head Grade		Concentrate Grade		Fe Recovery	SiO_2 Recovery
(µm)	(%)	(%)	(%Fe)	(%SiO2)	(%Fe)	(%SiO2)	(%)	(%)
850	21.7	34.6	31.4	52.7	64.4	4.8	70.2	3.6
600	26.3	30.9	31.4	52.7	64.7	4.7	63.3	3.1
425	29.1	30.0	31.4	52.7	65.5	4.0	61.9	2.8
250	36.6	26.8	31.4	52.7	66.4	2.5	56.5	1.4
150	64.2	15.2	31.4	52.7	67.1	1.7	32.4	0.5

The Wilfley table test (WT) is also used for the assessment of the separability of ores based on their density and is considered a good predictor of a spiral concentrator performance. This test allows the generation of multiple data points that can be used to build a grade-recovery curve to use for interpolation of performance at different quality targets. The 2020 tests were conducted at a grind size of 425 µm and the silica content of the concentrate produced varied significantly from sample to sample. Of the 37 samples tested, only 14 produced a concentrate with less than 1.5% SiO_2 and seven samples produced a concentrate with a minimum silica concentrate grade higher than 4%. A summary of the results obtained on the 37 samples tested is presented in Table 13-10. However, of the 37 samples tested, 16 were identified as silicates-dominant and should be expected to have poor metallurgical performance. The performances associated with an interpolation of the results at 4 and 1.5% SiO_2 for only the samples falling withing the hematite-dominant zone of the resource are presented in Table 13-11 and Table 13-12.

Table 13-10: 2020 Wilfley Table Testwork Results - Average per Category All Tests

Sample Category	Quantity	Concentrate Grade 1		Concentrate Grade 1-2		Fe Recovery 1-2	SiO_2 Recovery 1-2
	(#)	(%Fe)	(%SiO_2)	(%Fe)	(%SiO_2)	(%)	(%)
>4 %SiO_2	7	54.8	11.8	44.5	26.4	41.3	9.4
>1.5 and <4 %SiO_2	16	62.4	2.63	60.2	9.54	66.3	5.2
<1.5 %SiO_2	14	63.8	1.20	62.5	8.37	77.4	5.3
All	37	63.2	3.87	58.5	12.0	67.7	6.1

Table 13-11: 2020 Wilfley Table Testwork Results - Interpolation to 4% SiO_2 HMOX Only

20 samples	Yield	Concentrate Grade		Fe Recovery	SiO2 Recovery
Parameter	(%)	(%Fe)	(%SiO2)	(%)	(%)
Average	27.8	66.2	4.0	61.5	2.03
Std	6.71	0.32	0	12.8	0.54
Min	15.8	65.5	4.0	38.9	1.08
Max	39.5	66.8	4.0	78.8	3.08

Table 13-12: Wilfley Table Testwork Results - Interpolation to 1.5% SiO_2 HMOX Only

14 samples	Yield	Concentrate Grade		Fe Recovery	SiO_2 Recovery
Parameter	**(%)**	**(%Fe)**	**(%SiO_2)**	**(%)**	**(%)**
Average	21.9	68.2	1.5	49.8	0.60
Std	7.36	0.20	0	15.3	0.22
Min	9.8	67.9	1.5	21.6	0.28
Max	34.6	68.6	1.5	72.7	1.01

13.4.4 Concentrate Quality

The average chemical composition of the concentrate produced throughout the different beneficiation tests conducted are presented in Table 13-13, alongside typical market specifications for comparison.

Table 13-13: Concentrate Quality – by Test – HMOX Only

		Type	Fe_T	SiO_2	Al_2O_3	MgO	CaO	TiO_2	P_2O_5	MnO	S
Market Specifications											
IODEX	China	58% Fe	58	5.50	1.50	-	-	-	0.115	-	0.02
IODEX	China	62% Fe	62	4.50	2.25	-	-	-	0.206	-	0.02
IODEX	China	65% Fe	65	3.50	1.00	-	-	-	0.172	-	
Fastmarket	Qingdao	62% Fe	62	4.00	2.30	-	-	-	0.229	-	0.02
Fastmarket	Qingdao	65% Fe	65	1.70	0.50	-	-	-	0.183	-	0.01
Results											
2012 -DT (HMOX)		Average	69.0	2.13	0.085	0.015	0.075	0.018	0.029	0.219	N/A
2012 – HLS (HMOX)		Average	65.2	4.08	0.276	0.032	0.017	0.027	0.039	0.450	N/A
2020 - WT Con 1 (HMOX)		Average	67.9	1.73	N/A	0.040	0.010	N/A	N/A	0.219	N/A
2020 - WT Con 1-2 (HMOX)		Average	63.2	7.85	N/A	0.040	0.010	N/A	N/A	0.335	N/A

*The concentrate generated through DT testing is shown to have very high quality as very little mass was generated due to the low magnetite content of the samples tested

13.5 Testwork Analysis

The results obtained from the 2012 and 2020 testwork programs were analyzed and compared to those obtained during the exploitation and development of other iron projects as a reference. The data was reviewed with the objective of determining the:

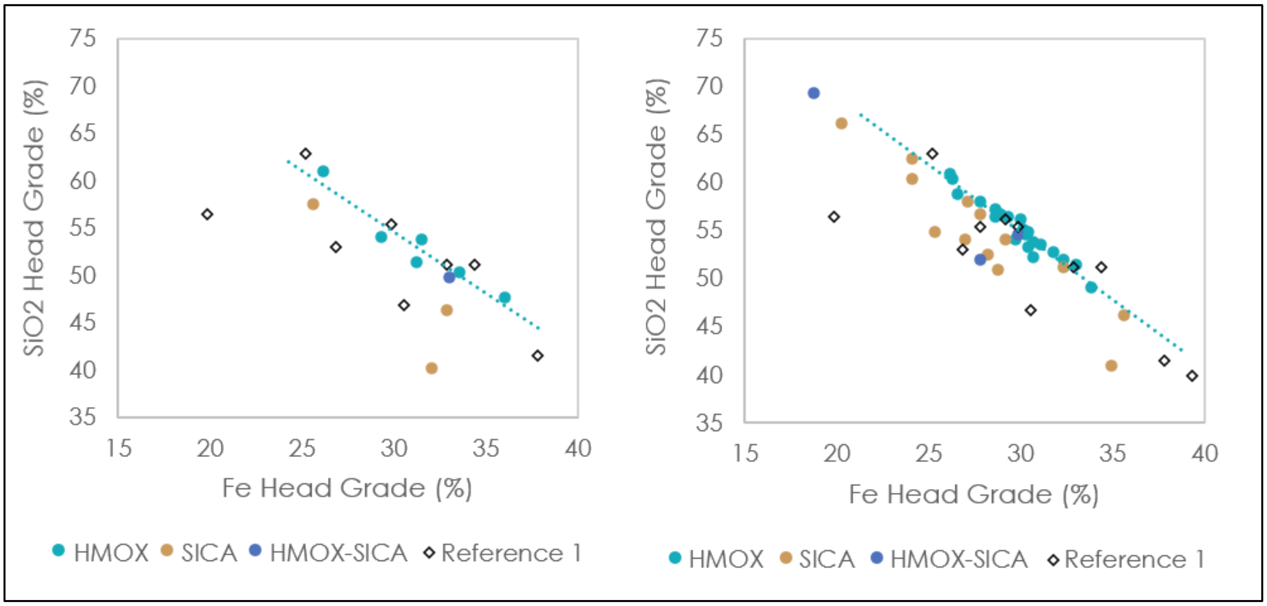
- Mineralogical characteristics of the samples;
- Grindability of the samples;
- Minerals liberation size;
- Achievable concentrate grade;
- Achievable recovery;
- Concentrate quality and potential impurities.

The results of the analysis are presented in the following sections.

13.5.1 Mineralogical Characteristics

Graphs showing the silica to iron ratio of the head samples used for testing are presented in Figure 13-2. The silica to iron ratio data points associated with the samples with hematite as the dominant iron-bearing mineral (HMOX) follow a linear trend, indicating a limited and consistent ratio of non-silica and non-iron-bearing minerals from sample to sample. Data points associated with silicates and carbonates facies (SICA) also show a mostly linear trend, with lower levels of silica for a given iron grade, and therefore more impurities. The samples selected for testing appear to be similar in terms of grade and impurity level to those typically selected for other iron projects.

Figure 13—2: 2012 HLS Testwork Results (Left) and 2020 WT Testwork Results (Right) - SiO_2 to Fe Grade Ratio of Head Samples



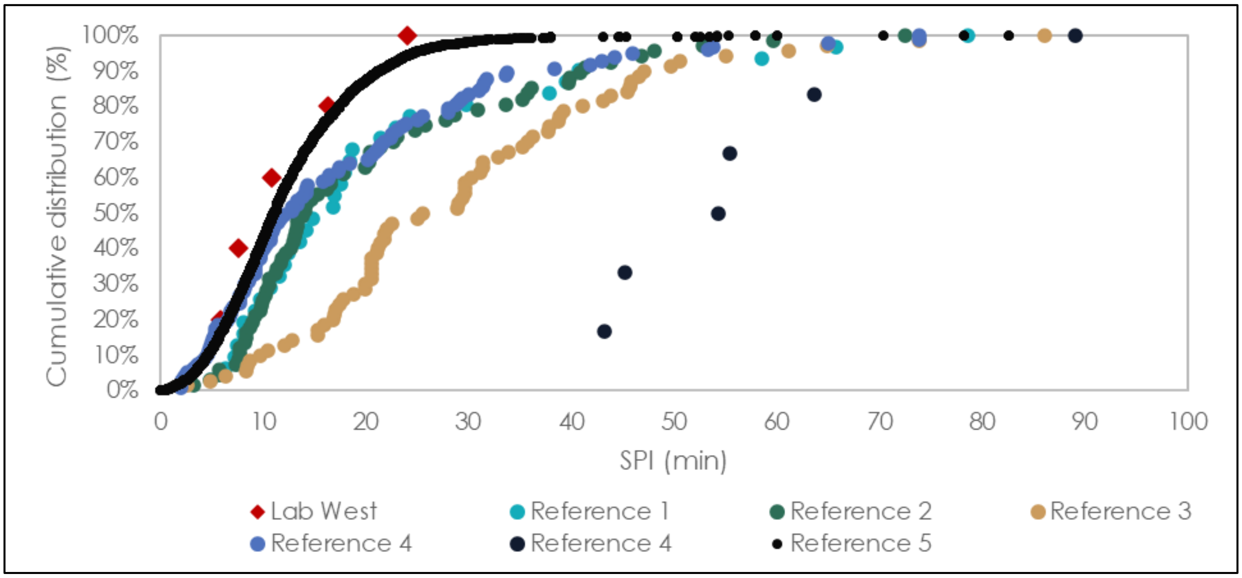
(BBA, 2023)

In terms of magnetic content, a review of the Davis Tube results indicates a very low magnetic content for the samples selected as part of the 2012 test program, with mass yield to the magnetic portion below 5%, even at the coarsest grind size tested (250 µm). Additionally, Satmagan results also indicate a low magnetic content of the samples selected for the 2020 test program, with an average value of 3.1 and only 4 of the 37 samples analysis resulting in a SAT >5. These results are in line with the geological interpretation of the deposit and the fact that all metallurgical samples collected for the two historical campaigns were sourced in the hematite dominant zone.

13.5.2 Grindability

The SPI® testwork results were compiled and compared to those obtained for similar iron deposits. The comparison is presented in Figure 13-3.

Figure 13—3: 2012 SPI® Testwork Results - Comparison to Similar Iron Deposits in the Labrador Trough area



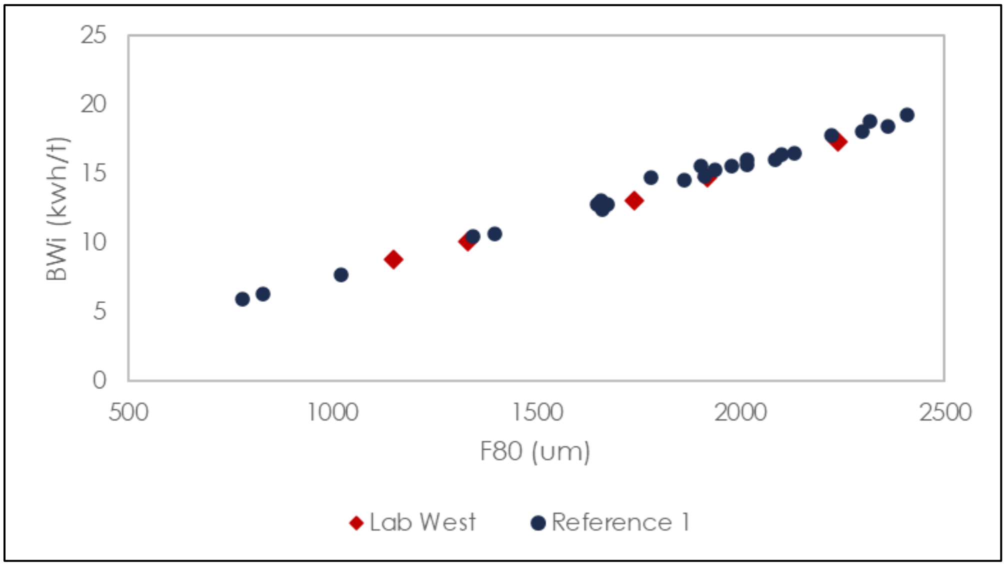
(BBA, 2023)

Comparison with other SPI® data in BBA's database suggests that the hardness of the Project material compares well with the softest iron ore in the region in terms of coarse grinding.

SPI® results of the two samples identified as SICA led to significantly higher values, indicating that this type of material would be harder to grind compared to the hematite samples.

The Bond testwork results were also compiled and compared to those obtained in similar conditions for another iron project. The Bond testwork results as a function of the samples' feed size are presented in Figure 13-4.

Figure 13—4: Bond Testwork Results - Comparison to a Similar Iron Deposit in the Labrador Trough area



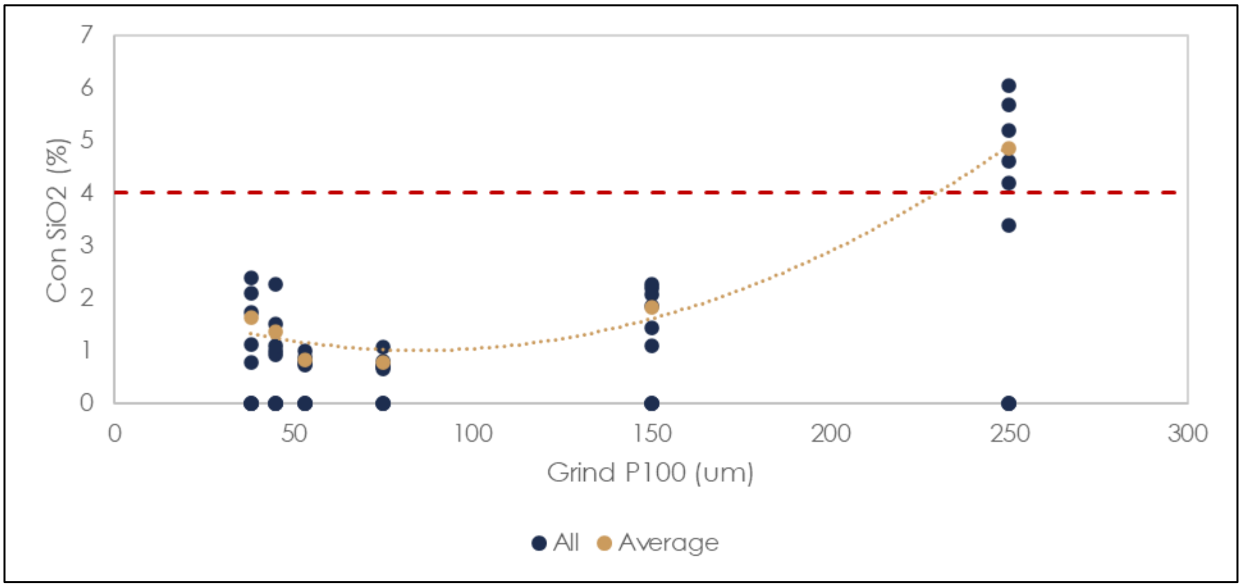
(BBA, 2023)

These results indicate that Project material is of average hardness in terms of fine grinding with Bond values between 12 and 16 kWh/t. Results obtained align with other iron deposit test results in BBA's database.

13.5.3 Liberation and Beneficiation

The 2012 Davis tube and Heavy-liquid separation tests were carried out at various grind size to determine the silica liberation size. The impact of grind size on silica rejection via magnetic and gravity separation is shown in Figure 13-5 and Figure 13-6.

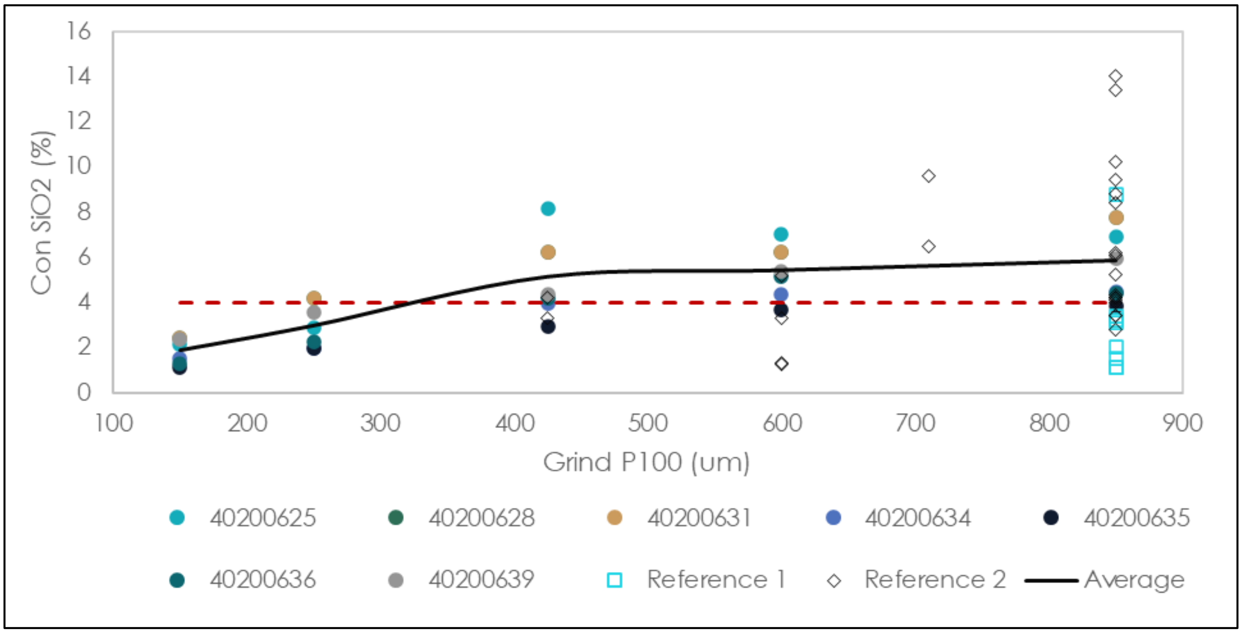
Figure 13—5: 2012 DT Testwork - Impact of Grind Size on Silica Rejection via Magnetic Separation



(BBA, 2023)

Results obtained indicate that the small quantity of magnetic minerals contained in the tested sample show maximum liberation from silica at a particle size of 75 µm, although acceptable silica level can also be achieved at 150 µm.

Figure 13—6: 2012 HLS Testwork - Impact of Grind Size on Silica Rejection via Gravity Separation for HMOX Samples

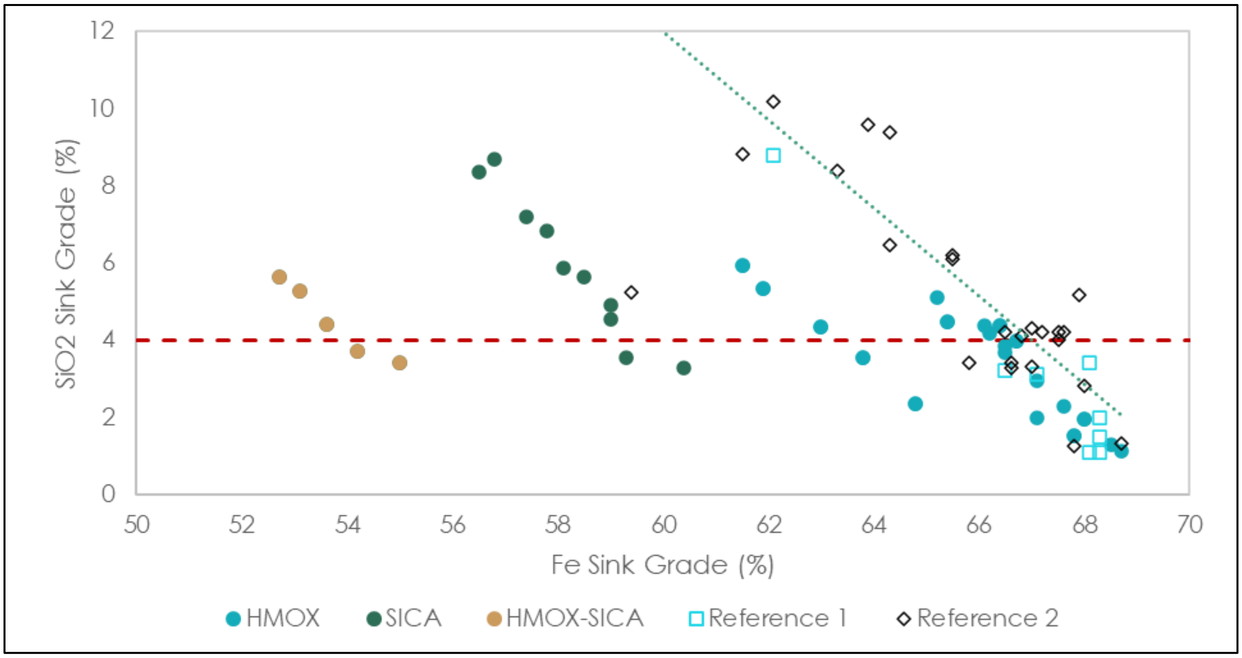


(BBA, 2023)

Results indicate an increase in silica liberation starting at 425 µm, which is finer than the liberation size of most iron deposits in BBA’s database. Even at that fine a grind size, two of the seven HMOX samples produced a concentrate with more than 4% SiO_2. Concentrate grades in the range of 1.5% SiO_2 were achieved when using a grind size of 150 µm.

The quality of the concentrates produced through the HLS and WT tests can be analyzed to get a sense of the concentrate grades achievable via gravity separation. The silica to iron ratio of the concentrate produced with these tests are presented in Figure 13-7 and Figure 13-8.

Figure 13—7: 2012 HLS Testwork Results - Achievable Concentrate Grades per Sample Type – All Grind Sizes

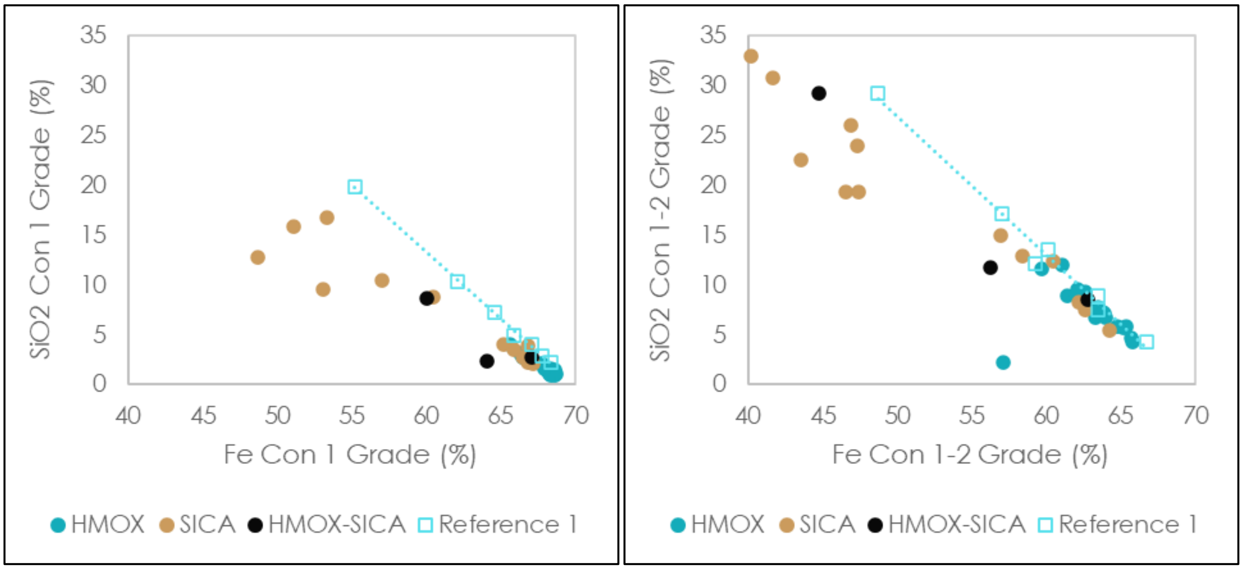


(BBA, 2023)

HLS test results indicate that the hematite dominant material selected for testing has the potential to be upgraded to 64-68% Fe with less than 4% SiO_2 when using a grind size finer than 600 µm.

Silicate and carbonate dominant samples and samples associated with mixed composition could not be upgraded to 62% Fe even at grind size of 150 µm.

Figure 13—8: 2020 WT Testwork Results - Achievable Concentrate Grades per Sample Type



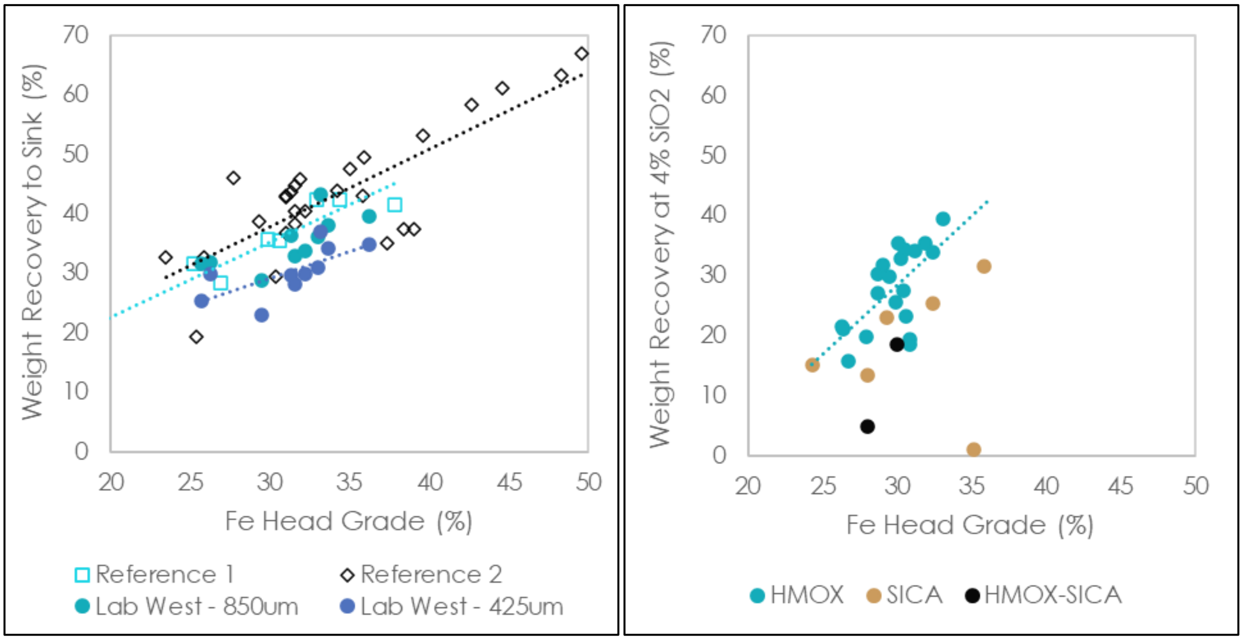
(BBA, 2023)

Similar results were obtained with the Wilfley table tests, which were conducted on samples ground to 425 µm. Indeed, the interpolation of the results at 4% SiO_2 grade gives an average iron concentrate grade of 64.0% Fe for all samples confounded and of 66.2% Fe when considering the HMOX samples only.

13.5.4 Recovery

The weight and iron recovery results obtained in the HLS and WT tests provide a good idea of the performance to expect from a gravity plant. Weight recovery results obtained through these tests are shown in relation to the samples head grade in Figure 13-9 and iron recovery results are shown in relation to the concentrate iron grade achieved in Figure 13-11 and Figure 13-12.

Figure 13—9: 2012 HLS Testwork Results (Left) and 2020 WT Testwork Results (Right) - Weight Recovery to Concentrate

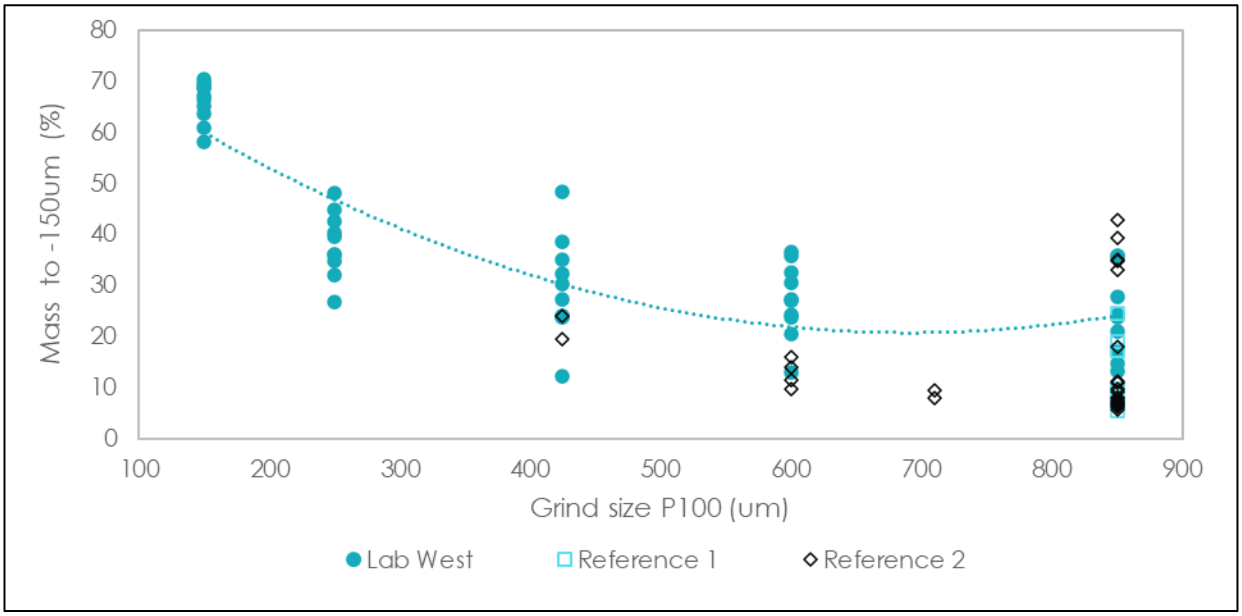


(BBA, 2023)

The weight recovery results reported in the HLS test are slightly lower than that of other iron deposit tests in BBA's database at a grind size of 850 µm, and even more so when evaluating the weight recovery of the samples ground to 425 µm. The weight recoveries interpolated for results at 4% SiO_2 obtained with the WT tests are slightly more variable but more or less in-line with those of HLS tests.

A review of the mass of sample reporting to the -150 µm fraction in the HLS test revealed that a significant amount of fine material was generated during the grinding of the samples. This portion is not tested for heavy liquid separation and impacts the overall recovery, explaining the slightly lower weight and iron recovery results reported for samples ground at a finer size. The correlation between sample grind size and the amount of -150 µm generated is presented in Figure 13-10.

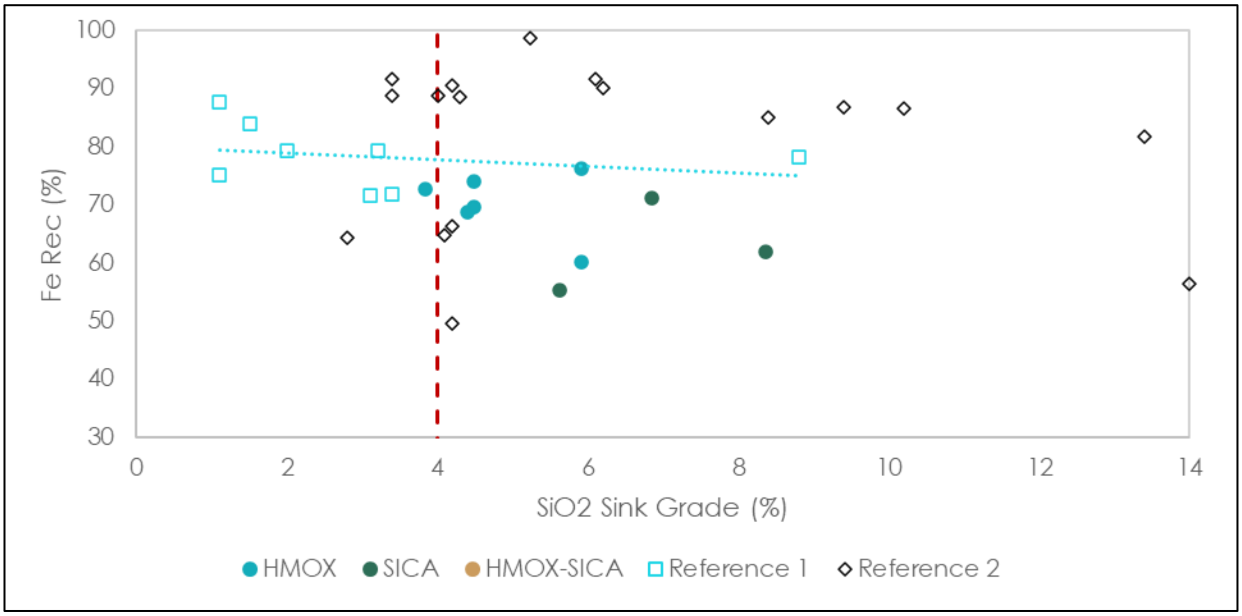
Figure 13—10: 2012 HLS Testwork Results - Weight Recovery to the -150 µm Fraction



(BBA, 2023)

The grade-recovery curve of the HLS results at a grind size of 850 µm is shown in Figure 13-11.

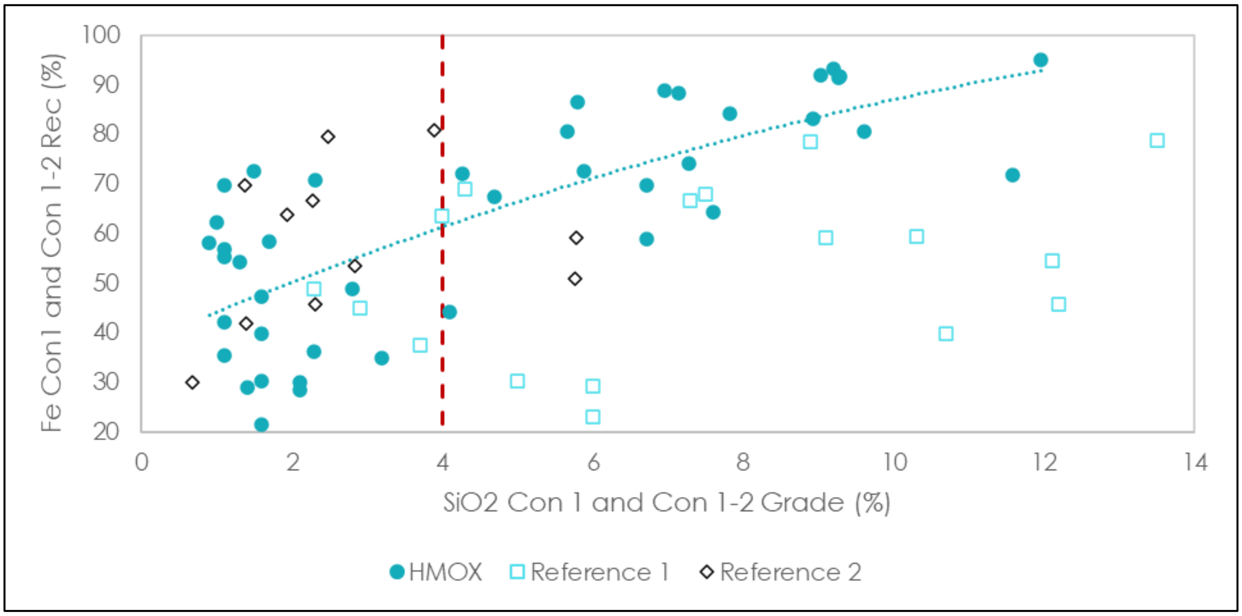
Figure 13—11: 2012 HLS Testwork Results - Iron Recovery per Sample Type at 850 µm



(BBA, 2023)

The results indicate that iron recovery in the order of 70-75% could be obtained at a concentrate grade of 4% SiO_2 using a single stage gravity or density-focused equipment at a grind size of 850 µm. As mentioned previously, the recovery obtained at lower grind size were all inferior due to the amount of iron reporting to the -150 µm portion.

Figure 13—12: 2020 WT Testwork Results - Iron Recovery per Sample Type at 425 µm



(BBA, 2023)

Similarly, the results of the Wilfley table tests shown in Figure 13-12 indicate that with a grind size of 425 µm, iron recovery in the order of 70-75% could be achieved with a concentrate grade of 4% SiO_2.

In both the HLS and WT cases, results are similar to other iron deposit test results available in BBA's database.

13.5.5 Concentrate Impurities

Low levels of magnesium, calcium and titanium oxide as well as phosphate were observed in the concentrate produced through the different tests. The manganese oxide levels are also low but not insignificant and the quantification and distribution of manganese-bearing minerals throughout the Project will have to be better understood to ensure that production of a concentrate with sufficiently low manganese content is feasible on a sustainable basis. It is also worth noting that the sulfur content of the concentrate was not analyzed in any of the testwork programs completed thus far.

14.0 MINERAL RESOURCE ESTIMATES

14.1 General

The definition of Mineral Resource and associated Mineral Resource categories used in this Report are those incorporated by reference into NI 43-101 and set out in the CIM Definition Standards (May 10, 2014). Assumptions, metal threshold parameters and deposit modeling methodologies associated with the Project resource estimate are discussed below.

The Mineral Resource estimate for the Project was prepared by Mr. Ryan Kressall, P. Geo., and Mr. Matthew Harrington, P. Geo., both of Mercator. Mr. Harrington is the QP responsible for the Project Mineral Resource estimate with an effective date of January 31, 2023. A summary of the Project Mineral Resource estimate constrained within a conceptual open pit shell is presented in Table 14-1.

Table 14-1: Labrador West Project Mineral Resource Estimate – Effective Date: January 31, 2023*

Type	Cut-off (Fe %)	Category	Tonnes (Mt)	FeT %
Pit Constrained	15	Inferred	654.9	28.84

Notes:

1. Total iron (FeT) Mineral Resources include only oxide-facies iron formation (magnetite or hematite dominated).
2. Mineral Resources are defined within an optimized conceptual pit shell with an overall pit slope angle of 50^{o} and a 1.3:1 strip ratio (waste: mineralized material)
3. Pit shell optimization parameters include: pricing of CDN $129 /tonne for 65% Fe concentrate, exchange rate of CDN$1.30 to US$ 1.00, mining cost at CDN $3.00/t, processing cost at CDN $4.55/t processed, tailings cost at CDN $0.35 processed, rail & port cost at CDN $18.00/t shipped, G & A Cost at CDN $5.00/t processed, Ocean Freight at $28.00/t shipped and mill recovery at 80%.
4. A cut-off grade of 15% FeT was selected for definition of the Mineral Resource.
5. Mineral Resources were estimated using Inverse Distance Squared methods applied to 3 m downhole assay composites. Iron grades were capped at 50 % FeT. Model block size is 20 m (x) by 20 m (y) by 12 m (z).
6. Bulk density for the block model was calculated from a linear regression relationship between FeT (%) and core specific gravity measurements from the Project. The average bulk density estimated for the deposit is 3.10 g/cm^3.
7. Mineral Resources may be materially affected by environmental, permitting, legal, title, taxation, sociopolitical, marketing, or other relevant issues.
8. Mineral Resources are not Mineral Reserves and do not have demonstrated economic viability.
9. Mineral Resource tonnages are rounded to the nearest 100,000.

14.2 Geological Interpretation Used In Resource Estimation

The Labrador West iron deposit is interpreted as a stacked sequence of Sokomon Iron Formation, moderately dipping to the south-southwest, resulting in repeat sequences of oxide and silicate-carbonate facies iron formation. A lower quartzite unit, interpreted to be the Wishart Formation, was used as a stratigraphic marker bed for the structural interpretation. Mineralized units show substantial drill section to drill section continuity and have been modelled as laterally continuous bedded deposits.

14.3 Methodology of Resource Estimation

14.3.1 Overview of Estimation Procedure

The Mineral Resource estimate is based on verified results of 26 diamond drill holes (6,758 m), including 15 drill holes (3,459 m) completed by Rio Tinto between 2010 and 2013 and 11 drill holes (3,299 m) completed by High Tide between 2020 and 2022. Solid modelling was performed using Seequent Leapfrog™ Geo 2022.1.1 (Leapfrog) modeling software. Block model volume, grade, and density modeling was performed using GEOVIA Surpac™ 2021 (Surpac) with total iron percent values for the block model estimated using inverse distance squared (IDS) interpolation methodology from 3 m down hole assay composites. Block specific gravity values were assigned using a regression curve based on total iron percent. The resource block model was set up with a block size of 20 m (x) by 20 m (y) by 12 m (z). The predominant iron minerals in the deposit are hematite and magnetite.

Iron grade assignment was peripherally constrained by solid models based on sectional geological interpretations of the Project. The geological model developed for the deposit area consists of 23 solids, including seven oxide facies solids that define the Mineral Resource volume. The other 16 solids define overburden and waste rock units, including silicate-carbonate iron formation (SICA), gabbro dykes (SCAM) and quartzite (WISHART). Resource solids include both hematite-dominated iron formation (HMOX-U1, HMOX-U1b, HMOX-U2 HMOX-L2) and magnetite-dominated iron formation (MTOX-1, MTOX-2 and MTOX-3). The HMOX solids are believed to represent the middle Sokomon Formation that is thrust faulted and stacked, resulting in repeat sequences of HMOX and SICA. The MTOX solids represent correlated horizons of magnetite-dominated iron formation that occur within the SICA sequences. In addition to thrust faulting, the deposit may be isoclinally folded, with the marker WISHART possibly representing the hinge of a larger scale fold, implying that units below the WISHART marker bed may be overturned. All modelled units dip approximately 20° to 30° towards an azimuth of 190° and a have been defined over a strike length of up 2,650 m. The HMOX units range in thickness from 50 to 150 m, with thickened sequences interpreted to represent stacking from thrust faulting or thickening from folding. The MTOX units range from six to 35 m in thickness. Geology is defined to a maximum vertical depth of approximately 450 m.

Interpolation ellipsoid ranges and orientations were developed through assessment of variography, combined with geological interpretations and drill hole spacing. Major axis orientations conform to the dip direction, between an azimuth 185° and 216° and a dip of 18.5° to 23°. The semi-major axes occur in the strike direction and perpendicular to the major axes, while minor axes are oriented at a high angle to stratigraphy. Total iron grade interpolation was constrained to block volumes using a four interpolation pass approach. Interpolation passes, implemented sequentially from pass one to pass four progress from being restrictive to more inclusive in respect to ellipsoid ranges, composites available, and the number of composites required to assign block grades. Grade domain boundaries were set as hard boundaries for grade estimation. Grade interpolation was restricted to the 3 m assay composites associated with the drill hole intercepts assigned to each oxide facies solid.

The requirement for reasonable prospects for eventual economic extraction was assessed for the by means of developing an optimized open pit shell to constrain Mineral Resources. This shell was based on the mineral deposit block model and developed by the QP through application of operating and recovery parameters deemed appropriate for the style of mineralization present. Pit optimization parameters include metal pricing of CDN$129/t for 65 % Fe concentrate, an exchange rate of CDN$1.30 to US$ 1.00, mining at CDN $3.00/t, processing at CDN $4.55/t processed, tailings cost at CDN $0.35/t processed, rail and port cost at CDN $18.00/t shipped, G&A cost at CDN $5.00/t shipped, ocean freight cost at $28.00/t shipped and milling recovery at 80 %. The optimized pit shell supports a 1.3:1 strip ratio with an overall pit slope of 50°.

Mineral Resources are reported at a cut-off grade of 15 % FeT within the optimized pit shell. This cut-off grade is in-line with current operations within the Labrador Trough and is selectively higher than the marginal cut-off grade of 5 % FeT determined in pit optimization.

Categorization of Inferred Mineral Resources was applied after interpolation of the block model based on degree of confidence in the geological interpretation, density of drilling, and interpolation results. Orphan blocks and discontinuous zones of Inferred Mineral Resources were refined through application of categorization solid models. Measured and Indicated Mineral Resources were not defined.

14.3.2 Data Validation

The Mineral Resource estimate is based on verified results of 26 diamond drill holes totalling 6,758 m of drilling. This includes 524 m from four historical surface diamond drill holes completed in 2010 by Rio Tinto, 1,817 m from six surface diamond drill holes completed in 2011 by Rio Tinto, 1,118 m from five surface diamond drill holes completed in 2012 by Rio Tinto, 1,000 m from four surface diamond drill holes completed in 2020 by High Tide, and 2,298 m from six surface diamond drill holes completed in 2022 by High Tide. Drill hole coordinates are located in UTM NAD83 Zone 19 coordination.

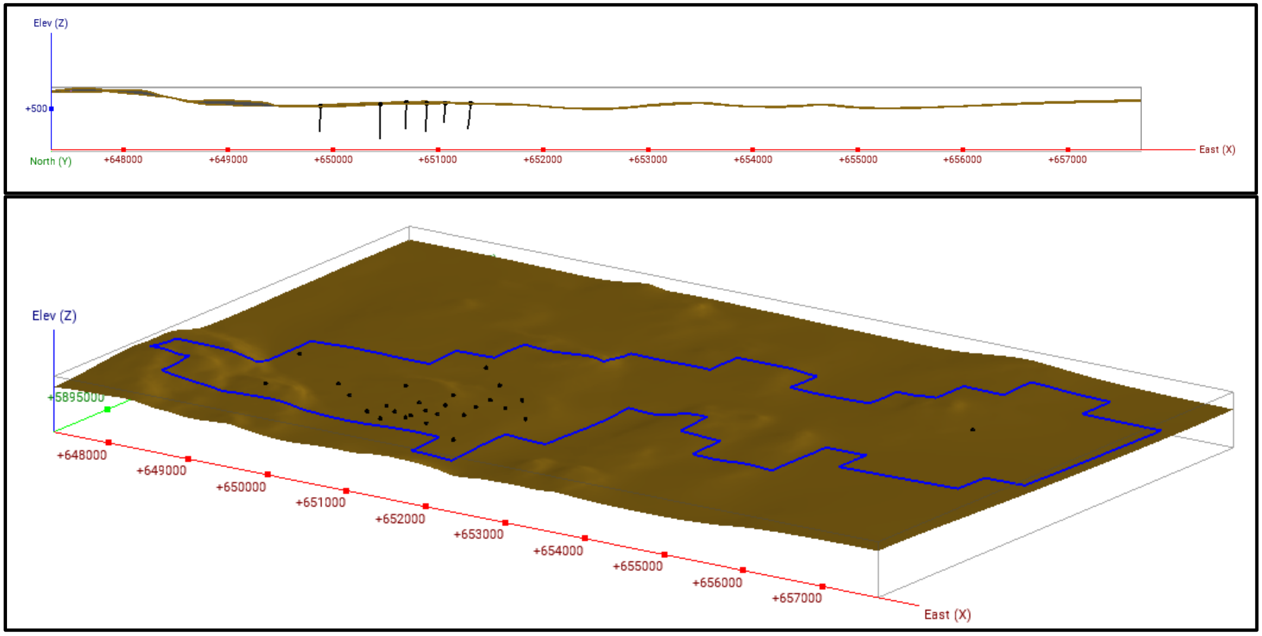
The 2020 and 2022 diamond drill programs were managed by Mercator personnel and Mercator geologists were responsible for all aspects associated with logging, sampling, and data management using Sequent MX Deposit® software. Mercator staff logged drill hole results in Seequent MX Deposit software. Mercator, under the supervision of the QP, compiled a Microsoft Access drill hole database of the historic drill hole data from publicly available assessment reports filed by Rio Tinto and the High Tide MX Deposit drill hole dataset. A 30 % validation program was carried out that included drill hole collars, down hole surveys, lithological entries and laboratory records with acceptable results. In addition, validation checks on overlapping intervals, inconsistent drill hole identifiers, improper lithological assignment, unreasonable assay value assignment, and missing interval data were performed on all relevant entries. A total of 2,693 core samples and 1,979 specific gravity determinations are compiled on the project and a total of 2,426 core samples and 1,706 specific gravity determinations occur within the limits of the peripheral resource solids.

14.3.3 Modelling: Topography, Lithology, and Grade

14.3.3.1 Topography Surface

A digital terrain model (DTM) was produced for the Project area in Leapfrog using elevation contours from the CanVec dataset published by Natural Resources Canada in 2017. The elevation dataset is contoured at 10 m and the absolute vertical accuracy of a single point is approximately 5 m. Drill collar elevations were measured using a handheld GPS and therefore local elevations determined by the DTM are considered to be more accurate. Drill hole collar elevations in the drill hole database were set to the topography DTM. Lateral extents measure approximately 10,300 m east-west and 6,500 m north-south over the Project area. Figure 14-1 presents cross-sectional and isometric views of the DTM of topography.

Figure 14—1: Cross-Sectional View (Looking North) and Isometric View (Looking Northwest) of the DTM of Topography

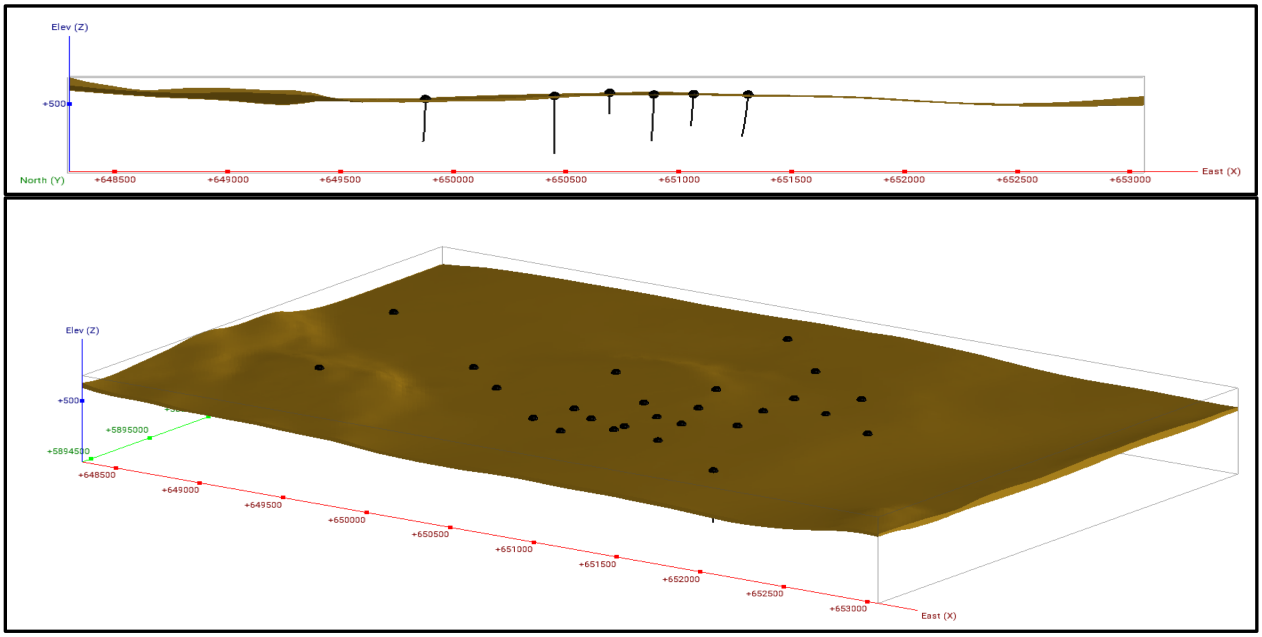


(Mercator, 2023)

14.3.3.2 Overburden Solid Model

An overburden solid model was developed in Leapfrog at an adaptive resolution of 25 m from drill hole litho-codes and the topography DTM. The topography DTM and overburden solid model were used to constrain the surface projections of the grade domain and lithological solid models. Overburden thickness, in the project area, averages approximately 8 m, with maximum thicknesses of approximately 30 m. Figure 14-2 presents cross-sectional and isometric views of the overburden solid model.

Figure 14—2: Cross-Sectional View (Looking North) and Isometric View (Looking Northwest) of the Overburden Solid Model



(Mercator, 2023)

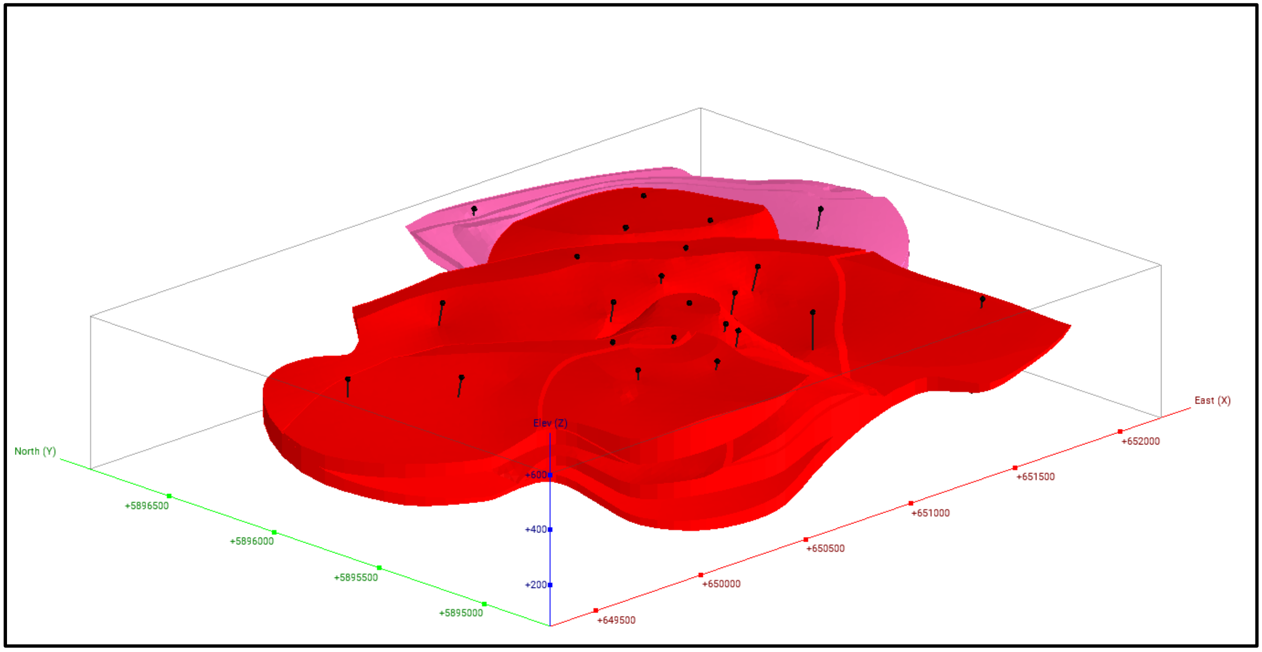
14.3.3.3 Lithology Solid Models

To best assess recoverable iron mineralization for the Project, solid models were developed to define oxide facies iron formation and exclude silicate and carbonate facies iron formation. The geological model developed for the deposit area consists of 23 solids, including seven oxide facies solids that define the Mineral Resource volume. The other 16 solids define overburden and waste rock units, including silicate-carbonate iron formation (SICA), gabbro dykes (SCAM) and quartzite (WISHART).

Resource solids include four hematite-dominated iron formation solids (HMOX-U1, HMOX-U1b, HMOX-U2, HMOX-L2) and three magnetite-dominated iron formation solids (MTOX-1, MTOX-2 and MTOX-3). Two additional magnetite-dominated iron formation solids (MTOX-4 and MTOX-5) were also modelled but were not accepted for use in the Mineral Resource because of low confidence in their geological interpretation. The MTOX-4 solid is only defined by two drill hole intersections and MTOX-5 is only defined by one drill hole intersection.

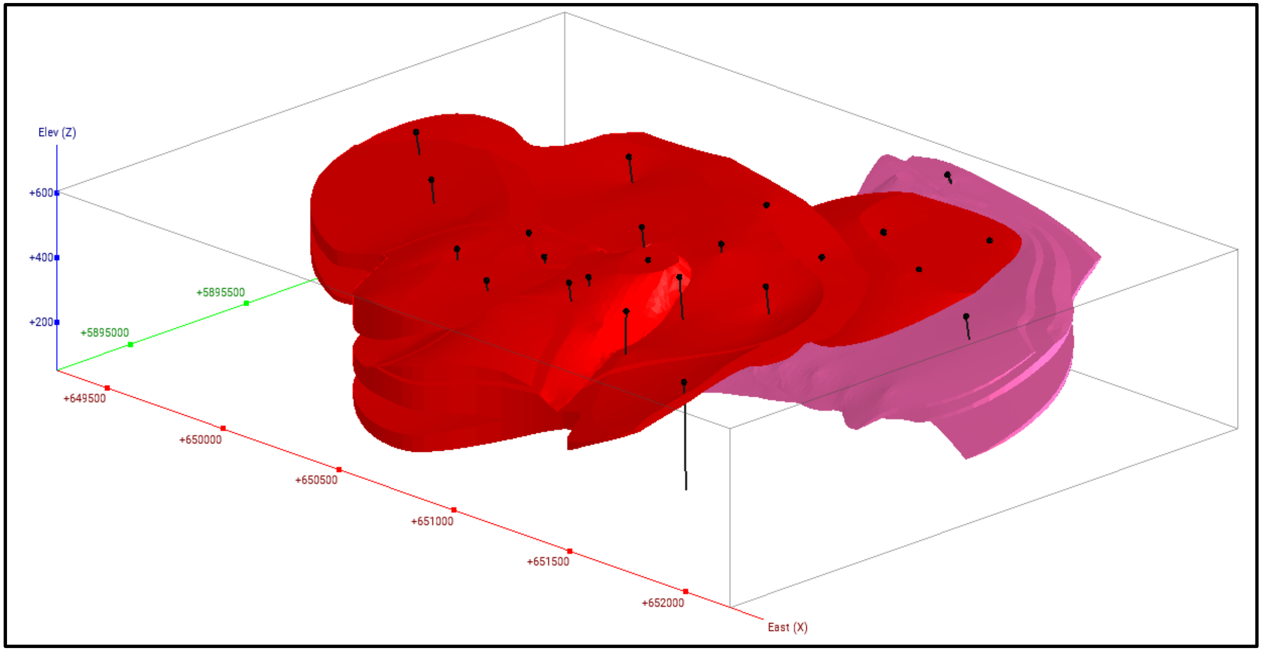
The solid models reflect tabular stacked horizons. The HMOX solids are believed to represent the middle Sokomon Formation that is thrust faulted and stacked, resulting in repeat sequences of HMOX and SICA. The MTOX solids represent horizons of magnetite-dominated iron formation that occur within the SICA sequences. In addition to thrust faulting, the deposit may be isoclinally folded, with the marker WISHART possibly representing the hinge of a larger scale fold, implying that units below the WISHART marker bed may be overturned. All modelled units dip approximately 20^{0} to 30^{0} towards an azimuth of 190^{0} and a have been defined over a strike length of up 2,650 m. The HMOX units range in thickness from 50 to 150 m, with thickened sequences interpreted to represent stacking from thrust faulting or thickening from folding. The MTOX units range from six to 35 m in thickness. Geology is defined to a maximum vertical depth of approximately 450 m. The geological model extends south beyond the limits of the property boundary, however Mineral Resources have been constrained within the property limits. Figures 14-3 through 14-5 present perspective views of the HMOX and MTOX solid models.

Figure 14—3: Perspective View (Looking Northeast) of the Domain Solid Models (HMOX = Red; MTOX = Pink)



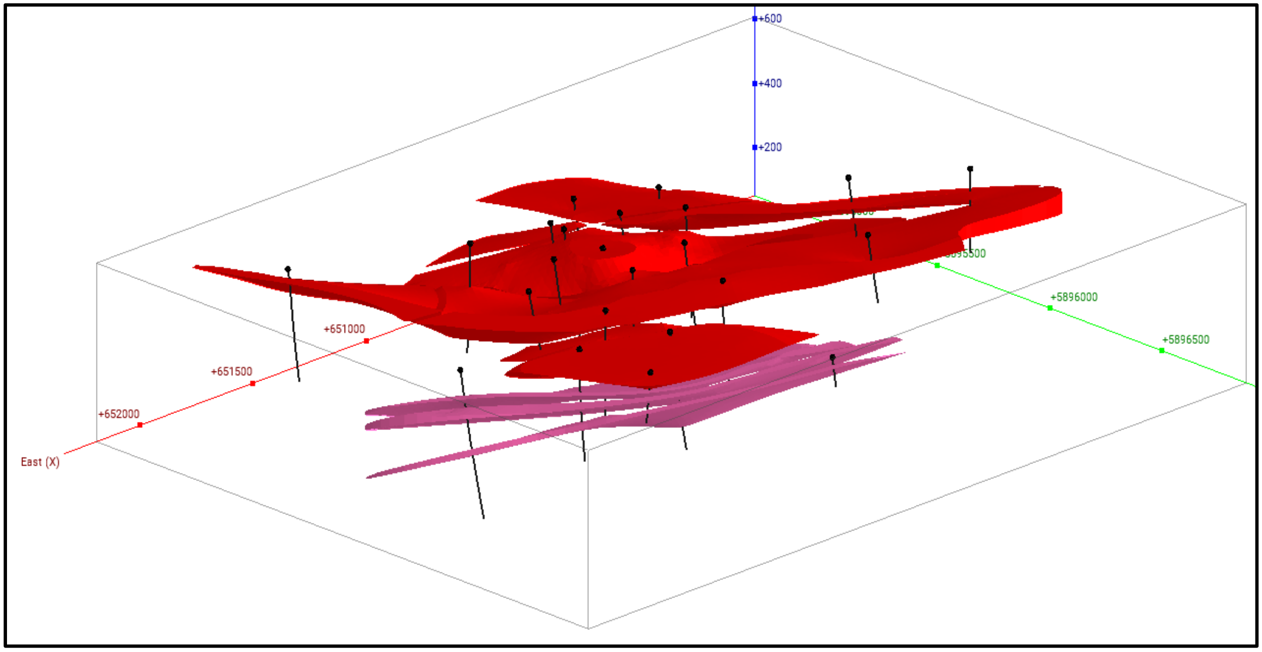
(Mercator, 2023)

Figure 14—4: Perspective View (Looking Northwest) of the Domain Solid Models (HMOX = Red; MTOX = Pink)



(Mercator, 2023)

Figure 14—5: Isometric View (Looking Southwest) of the Domain Solid Models (HMOX = Red; MTOX = Pink)



(Mercator, 2023)

The HMOX and MTOX solids were further subdivided into zones of high and low goethite/limonite alteration. High goethite and limonite zones are defined as those where total proportion of goethite + limonite represent more than 50 % of the total oxides present in an interval as logged by Mercator geologists. This was defined by the calculation of 100 * [(Goethite_% + Limonite_%) / (Goethite_% + Limonite_% + Hematite_% + Magnetite_%)]. The high goethite and limonite zones typically concentrate near the surface and along contacts between HMOX and SICA.

14.3.4 Assay Sample Assessment and Down Hole Composites

The predominant iron oxide minerals in the deposit are hematite (Fe_2O_3) and magnetite (Fe_3O_4). The laboratory reports iron oxide percentage (Fe_2O_3%) to achieve a balance of all elements as compounds. The iron oxide values were converted to iron percentage (Fe %) respectively, using a factor of 0.699. Total iron (FeT) reflects only oxide-facies iron formation (magnetite or hematite dominated).

The drill core analytical dataset used in the Mineral Resource estimate contains 2,693 sample records that occur on the Property. A total of 2,426 core samples and occur within the limits of the peripheral resource oxide facies solid models. Sample length statistics for the solid constrained sample records define a sample length range of 0.33 m to 21.0 m and an average sample length of 2.54 m, with 90 % of samples measuring 3.1 m or less; and 99 % of samples measuring 6.1 m or less.

Downhole assay composites over 3 m intervals were developed for total iron percent using the Surpac ‘best fit” option set to a 3 m target value. Assay composites generated outside of a 25% tolerance interval of the nominal length were either manually re-generated or merged with adjacent composites to meet the selection conditions. Compositing was constrained based on the drill hole intersections with the peripheral solid models. No intervals were missing iron assay values.

Descriptive statistics were calculated for total iron percentage from the 3 m composite datasets within each deposit area and for the global composite population and are presented in Table 14-2.

Table 14-2: Project FeT % Statistics for the 3 m Assay Composites

Area/Deposit	**FeT (%)**							
Value	**HMOX -U1**	**HMOX -U1b**	**HMOX -U2**	**HMOX -L2**	**MTOX -1**	**MTOX -2**	**MTOX -3**	**Total Population**
Number of samples	595	15	66	104	48	51	34	913
Minimum value	7.14	24.81	10.96	15.87	20.70	12.90	10.95	7.14
Maximum value	62.01	39.37	47.89	34.18	33.85	40.82	35.27	62.01
Mean	30.22	30.91	30.90	28.40	26.63	28.70	25.45	29.62
Variance	28.99	17.10	32.33	14.52	7.04	21.52	22.77	27.30
Standard Deviation	5.38	4.14	5.69	3.81	2.65	4.64	4.77	5.22
Coefficient of variation	0.18	0.13	0.18	0.13	0.10	0.16	0.19	0.18

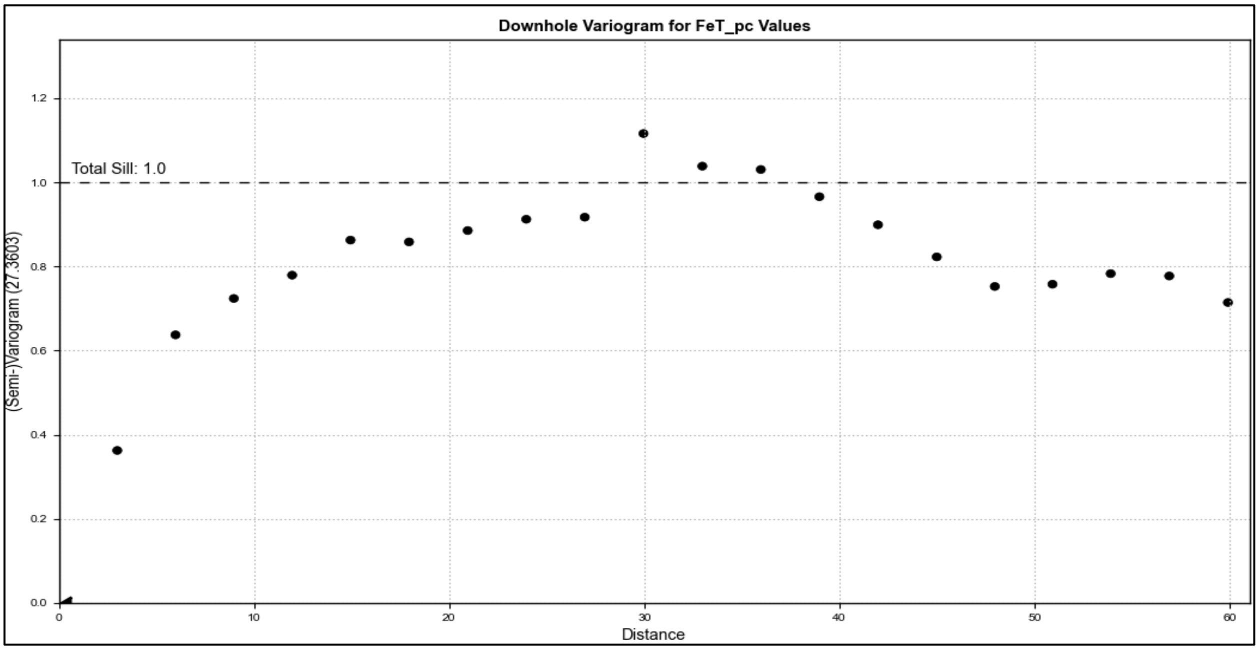
The 3 m assay downhole composites were capped at 50 % FeT through grade distribution analysis by means of frequency histogram, cumulative frequency plots, probability plots, rank/percentile, and decile analysis. Review of drill logs indicated that the > 50 % FeT population is associated with poor core recovery and unconsolidated material. The higher iron content in these samples is interpreted to be the result of the concentration of iron associated with weathering rather than representative of actual iron content of the host rock.

14.3.5 Variography and Interpolation Ellipsoids

Manually derived models of geology provided the definition of a south-southwest dip associated with the local stratigraphy. To assess spatial aspects of grade distribution within the deposit, downhole and directional variograms were developed for total iron percent based on the 3.0 m downhole composite dataset defined by the peripheral solid models.

Downhole variograms provided definition of a normalized nugget of 0.22 (Figure 14-6) and spherical model results with a single structure. The variogram supported a normalized sill of 1.00 and a range of 30 m. The downhole variogram provide guidance and definition of nugget values and minor axis ranges for the directional variogram assessment.

Figure 14—6: Downhole Total Iron Variogram

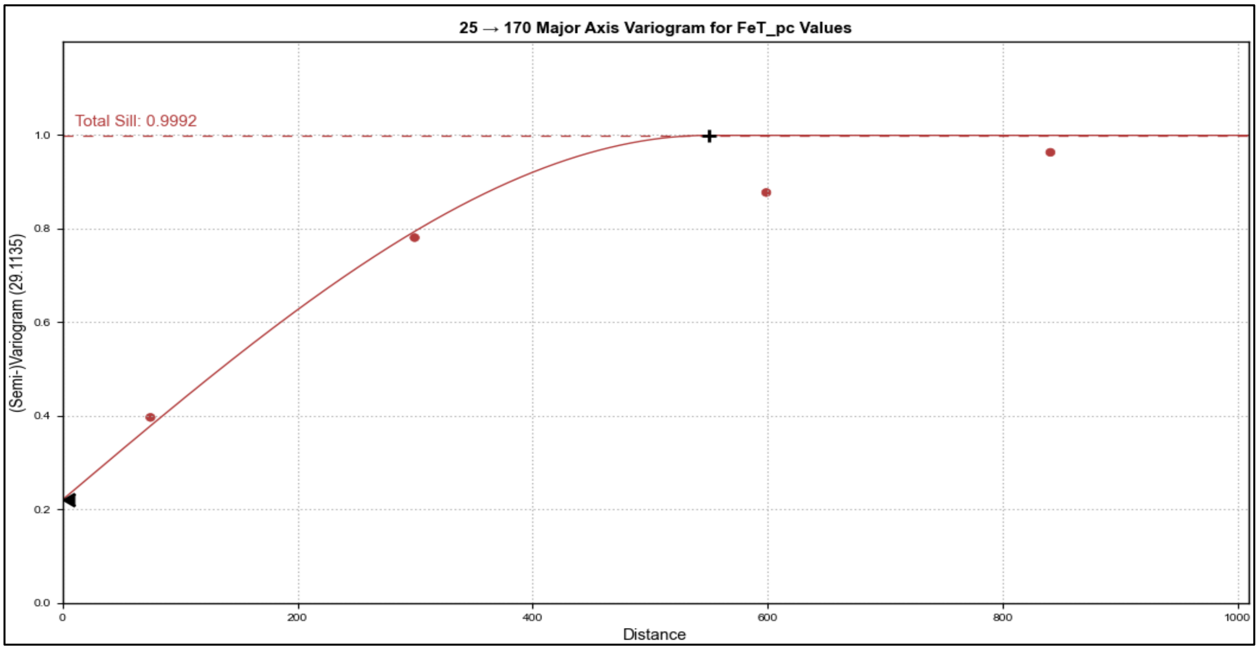


(Mercator, 2023)

Two sets of directional experimental variograms were evaluated. The first was set up for the 3-m composites within HMOX solids that occur in the upper stratigraphy above the WISHART. The best directional experimental variogram results were developed within a plane dipping 34° towards an azimuth of 170° and using a spread tolerance of 22.5°. The plane orientation corresponds to the down-dip trend of the modelled stratigraphy and assesses grade continuity along strike and in the down-dip direction. Application of spherical models provided definition of an anisotropy ellipsoid along an azimuth of 170° with no plunge and a dip of 25°. One structure was modelled for the primary axis trend supporting a normalized sill of 0.78 and a range of 550 m. Maximum ranges of continuity of 550 m for the secondary axis trend and 10 m for the third axis trend were defined. Figure 14-7 presents results of the primary variogram assessment, Figure 14-8 presents results of the secondary variogram assessment, and Figure 14-9 presents variogram results along all axes.

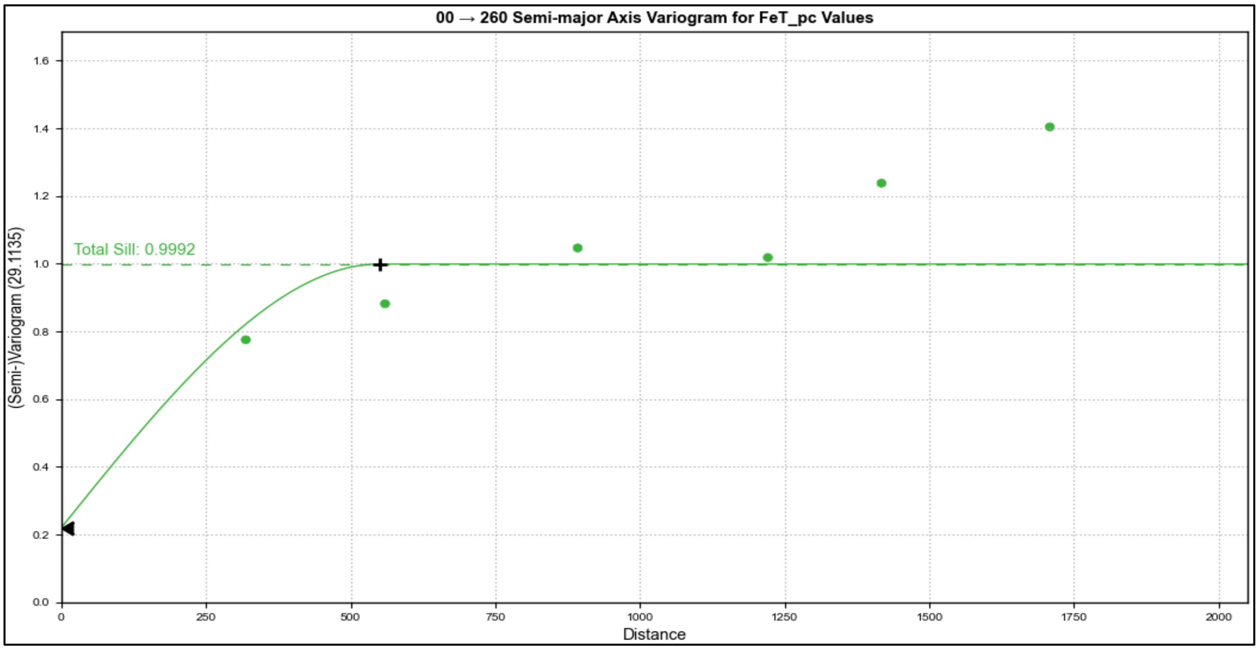
The second experimental variogram was set up for the 3-m composites within HMOX and MTOX solids that occur in the lower stratigraphy below the WISHART. The best directional experimental variogram results were developed within a plane dipping 34° towards an azimuth of 195° and using a spread tolerance of 40°. The plane orientation corresponds to the down-dip trend of the modelled stratigraphy and assesses grade continuity along strike and in the down-dip direction. Application of spherical models provided definition of an anisotropy ellipsoid along an azimuth of 195° with no plunge and a dip of 34°. One structure was modelled for the primary axis trend supporting a normalized sill of 0.78 and a range of 550 m. Maximum ranges of continuity of 550 m for the secondary axis trend and 10 m for the third axis trend were defined. Figure 14-10 presents results of the primary variogram assessment, Figure 14-11 presents results of the secondary variogram assessment, and Figure 14-12 presents variogram results along all axes.

Figure 14—7: Total Iron Variogram Model for the Major Axis of Continuity in the Upper Stratigraphy



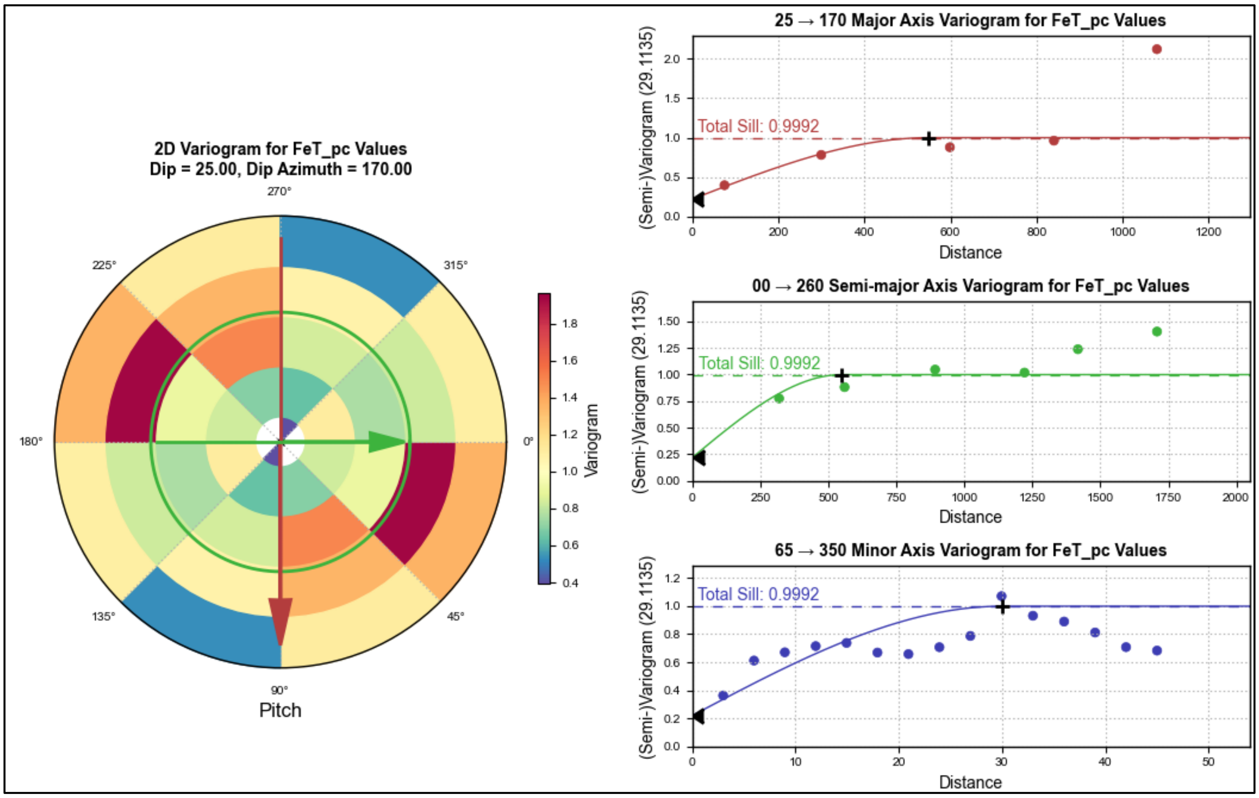
(Mercator, 2023)

Figure 14—8: Total Iron Variogram Model for the Semi-Major Axis of Continuity in the Upper Stratigraphy



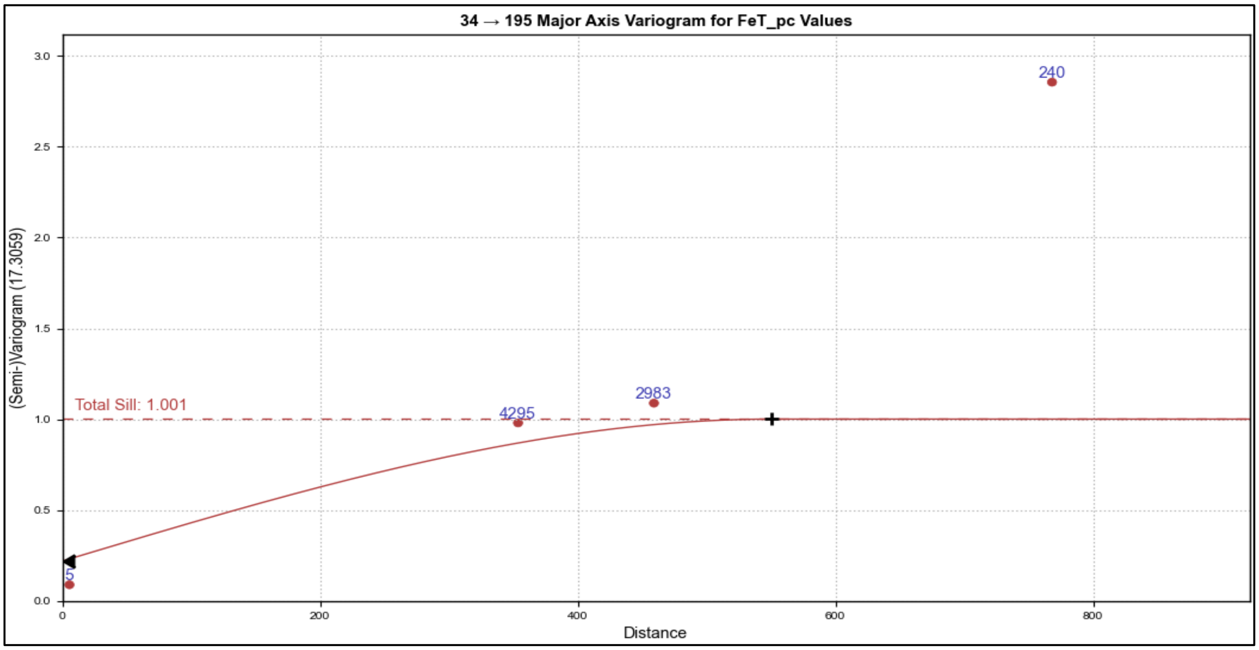
(Mercator, 2023)

Figure 14—9: Total Iron Variogram Model in the Upper Stratigraphy



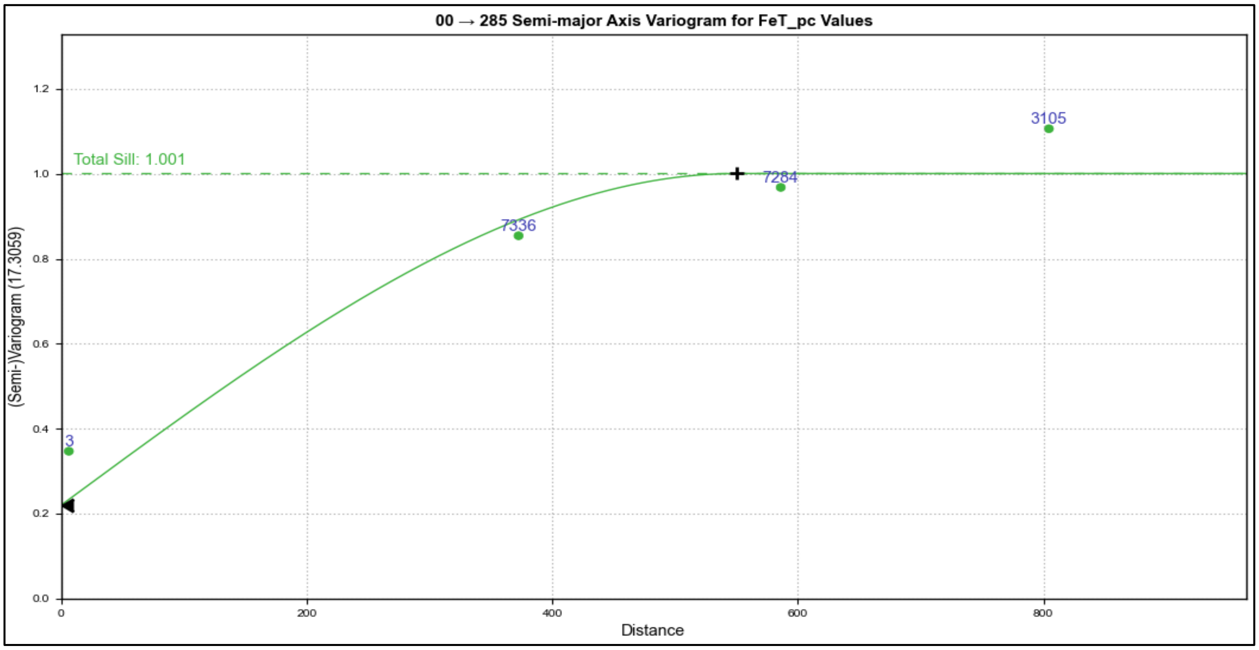
(Mercator, 2023)

Figure 14—10: Total Iron Variogram Model for the Major Axis of Continuity in the Lower Stratigraphy



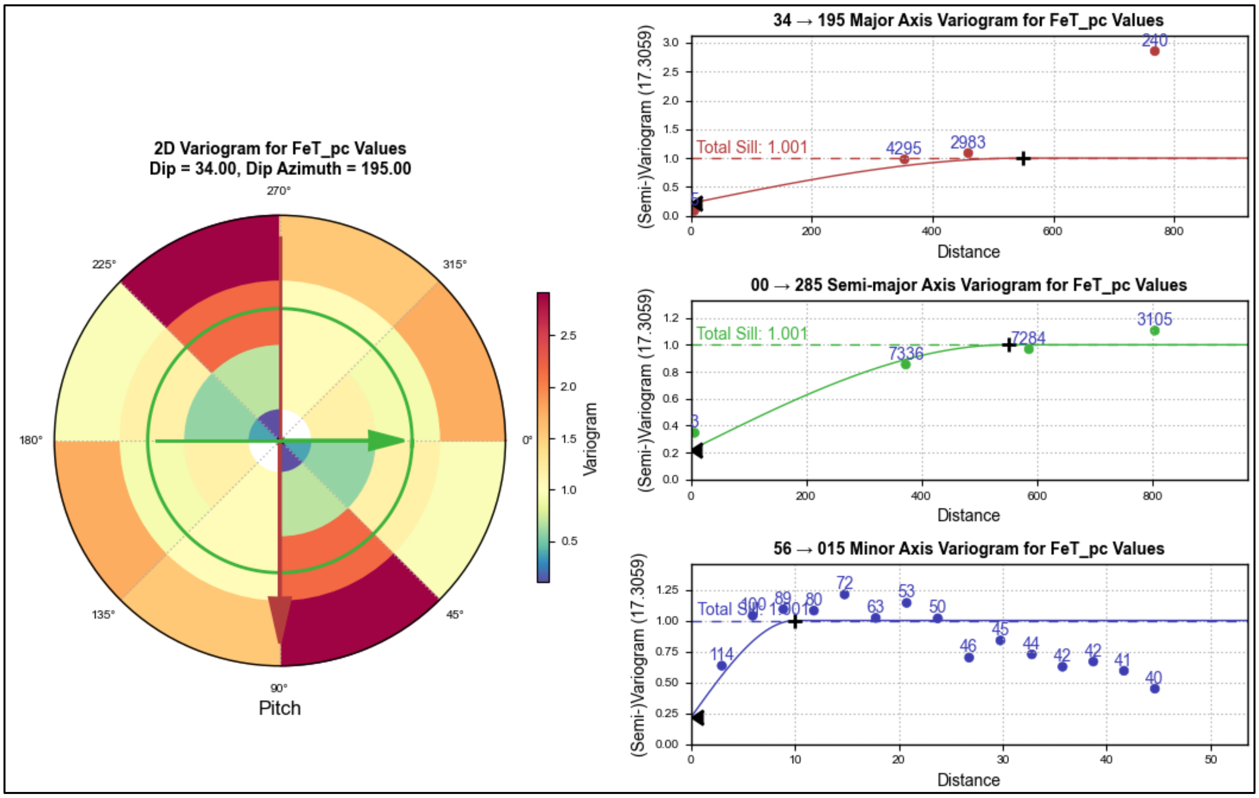
(Mercator, 2023)

Figure 14—11: Total Iron Variogram Model for the Semi-Major Axis of Continuity in the Lower Stratigraphy



(Mercator, 2023)

Figure 14—12: Total Iron Variogram Model in the Lower Stratigraphy



(Mercator, 2023)

The relatively wide drill hole spacing of approximately 300 m on the Project results in insufficient sample pairs at lower distances and it is expected that with increasing drilling density from future drilling programs resolution in the variography assessment will improve. Interpolation ellipsoid ranges and orientations were developed through the consideration of the variogram assessment in combination with geological interpretations and drill hole spacing. A total of 14 interpolation domains were developed for the seven oxide facies solid models. Interpolation domains were created to accommodate local variations in deposit geometry and to independently assess more restricted occurrences of mineralization. Major axis orientations conform to the dip direction, between an azimuth of 185° and 216°, with a plunge between 18.5° and 13.0°. The semi-major axes occur in the strike direction, plunging up to 10^{o} and perpendicular to the major axes, while minor axes are oriented at a high angle to stratigraphy. Ranges of 550 m, 550 m, and 30 m were derived for the major, semi-major and minor axes, respectively, from the variogram assessment.

14.3.6 Setup of the Three-Dimensional Block Model

The block model extents are presented below in Table 14-3 and were defined using UTM NAD83 (Zone 19) coordination and elevation relative to sea level. No rotation was applied to the block model. Standard block size for the model is 20 m by 20 m by 12 m (X, Y, Z) with a minimum sub-block size of 5 m by 5 m by 3 m (X, Y, Z) allowed.

Table 14-3: Block Model Parameters

Type	Y (Northing m)	X (Easting m)	Z (Elevation m)
Minimum Coordinates	5,894,600	649,200	-85
Maximum Coordinates	5,897,000	652,320	803
User Block Size	20	20	12
Minimum Block Size	5	5	3
Rotation	0	0	0

* UTM NAD83 Zone 19 coordination and sea level datum

14.3.7 Mineral Resource Estimate

Project block model volumes were estimated from the geological solid models. Blocks were assigned a lithological code from the geological model of AIR, OVB, HMOX, MTOX, MTOX_w, SCAM, SICA, WISHART or UNDIFF (undifferentiated). Report Section 10.3 presents the definition of lithological codes with the exception of MTOX_w, which refers to the MTOX-4 and MTOX-5 units that are not included in the Mineral Resource estimate. MTOX includes blocks belonging to the MTOX-1, MTOX-2 or MTOX-3 units. Undifferentiated blocks refer to those that occur outside the area of the geological model. Blocks assigned with a lithological code of HMOX or MTOX were accepted as eligible for total iron block grade interpolation and coded with the respective identifier to correspond with the appropriate 3 m assay composite dataset and interpolation parameters. All eligible blocks were also assigned a goethite-limonite qualifier based on whether the block occurred within an area modelled as high or low goethite.

Inverse distance squared (IDS) grade interpolation was used to assign block total iron grades within the from the 3 m assay composite datasets. Interpolation ellipsoid orientation and range values used in the estimation reflect a combination of trends determined from the variography assessment and interpretations of geology and grade distribution for the deposit. A four interpolation pass approach was applied, implemented sequentially from pass 1 to pass 3, that progresses from being restrictive to more inclusive in respect to ellipsoid ranges, composites available, and number composites required to assign block grades. Interpolation pass ranges reflect 33 %, 67 %, 100 % and 200 % of the ranges defined from variogram assessment for the first pass, second pass, third pass and forth pass, respectively. A total of 14 interpolation domains, each with unique interpolation ellipsoid orientation, were applied. Grade domain boundaries were set as hard boundaries for grade estimation purposes. Interpolation parameters for the Labrador West Deposit are summarized in Table 14-4.

Table 14-4: Summary of Interpolation Parameters

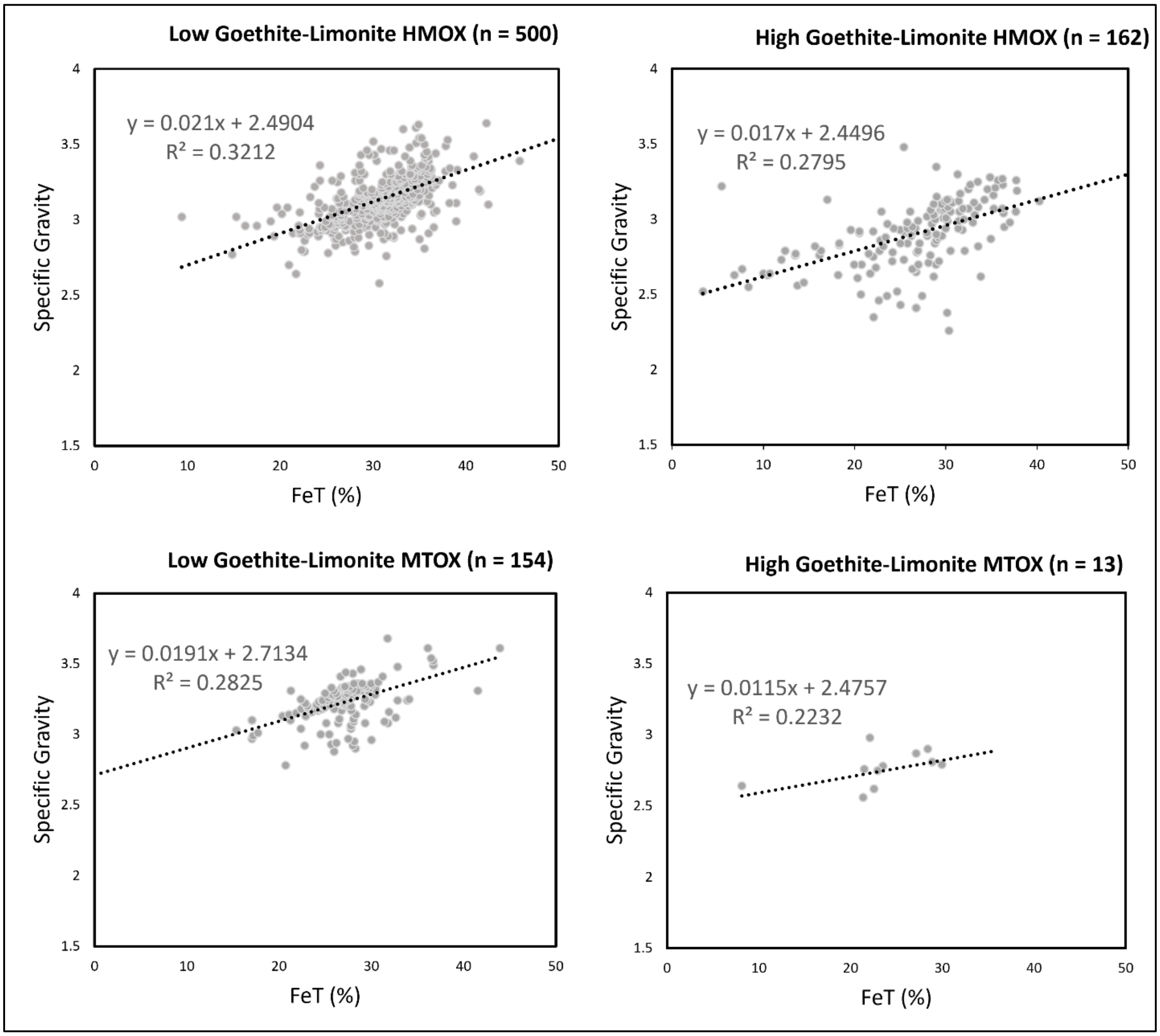
Interpolation Pass	Range			Contributing Composites		
	Major (m)	Semi-Major (m)	Minor (m)	Minimum	Maximum	Maximum Per Drill Hole
1	181.5	181.5	25	5	12	4
2	363	363	37.5	5	12	4
3	550	550	50	1	8	4
4	1100	1100	100	1	4	4

14.3.8 Density

A total of 2,554 specific gravity determinations are available in the Project drill hole database, including 1,406 measurements by Rio Tinto between 2010 and 2012, 458 measurements by High Tide in 2020 and 690 measurements by High Tide in 2022. All specific gravity measurements used water immersion determinations. The specific gravity determinations are accepted to represent a density determination of the rock measured. The measurements for 2020 were determined to have a low bias and were excluded from the density assessment. Two additional far outliers were also excluded from the assessment.

A total of 829 determinations occurs within the HMOX and MTOX units. Specific gravity values range from 2.26 to 3.64 within HMOX and 2.56 to 3.68 within MTOX, with the lower values being associated with greater presence of goethite-limonite alteration. Regression curves between total iron percent and specific gravity were calculated for the low and high goethite-limonite sub-zones for each the HMOX and MTOX units. A density value (g/cm^3) was applied to each block based on the appropriate regression curve, for all blocks with an interpolated total iron percent value, or the average value for the respective lithological assignment, for all blocks without an interpolated total iron percent value. Results of the regression analyses are shown in Figure 14-13 and average values based on lithology and are summarized in Table 14-5. A value of 2.0 g/cm^3 was selected as representative of the unconsolidated material (overburden).

Figure 14—13: Regression Curves between Specific Gravity and Total Iron



(Mercator, 2023)

Table 14-5: Average Bulk Density Values Based on Lithology

Lithology	Density (g/(cm^3))	Number of Samples
OVB (Overburden)	2.00	Not applicable
SCAM (Gabbro dyke)	2.83	19
Upper SICA (silicate-carbonate iron formation)	2.86	378
Upper silicate-rich SICA (silicate-carbonate iron formation)	2.88	125
Lower SICA (silicate-carbonate iron formation)	3.04	365
WISHART	2.70	96
Lower WISHART	2.83	14
MTOX4 & MTOX5	3.26	26

Note: All density values are mean averages of specific gravity measurements within specified lithology solids, except for the density value for overburden.

14.4 Model Validation

Block volume estimates for each Mineral Resource solid were compared with corresponding solid model volume reports generated in Surpac™ and results show good correlation, indicating consistency in volume capture and block volume reporting. Results of block modelling were reviewed in three-dimensions and compared with deposit interpretations for geology and grade distribution. Block grade distribution was shown to have acceptable correlation with the grade distribution of the underlying drill hole data (Figure 14-14 and Figure 14-15).

Figure 14—14: Representative Cross-Section Looking Northwest of Total Iron Values above the 15 % FeT Cut-off within Optimized Pit Shell

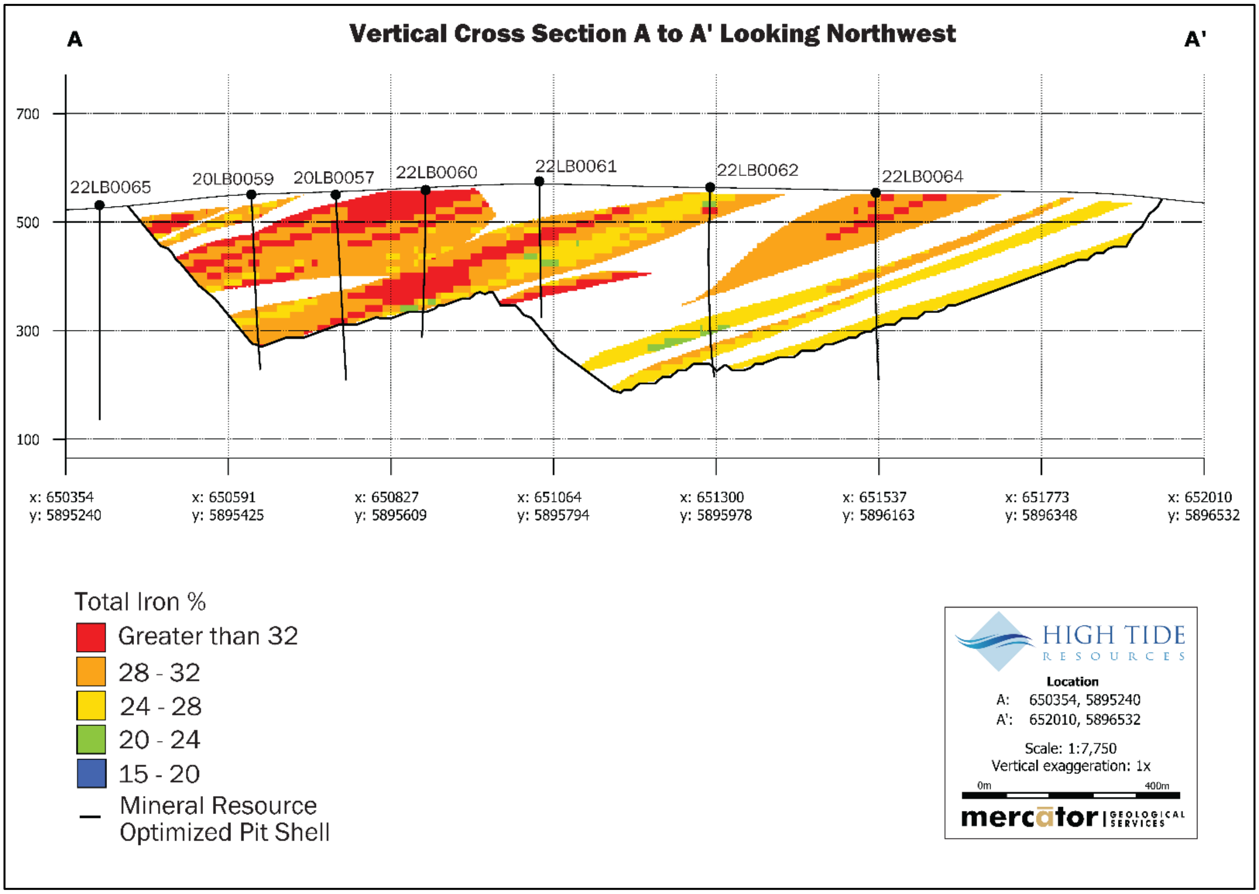
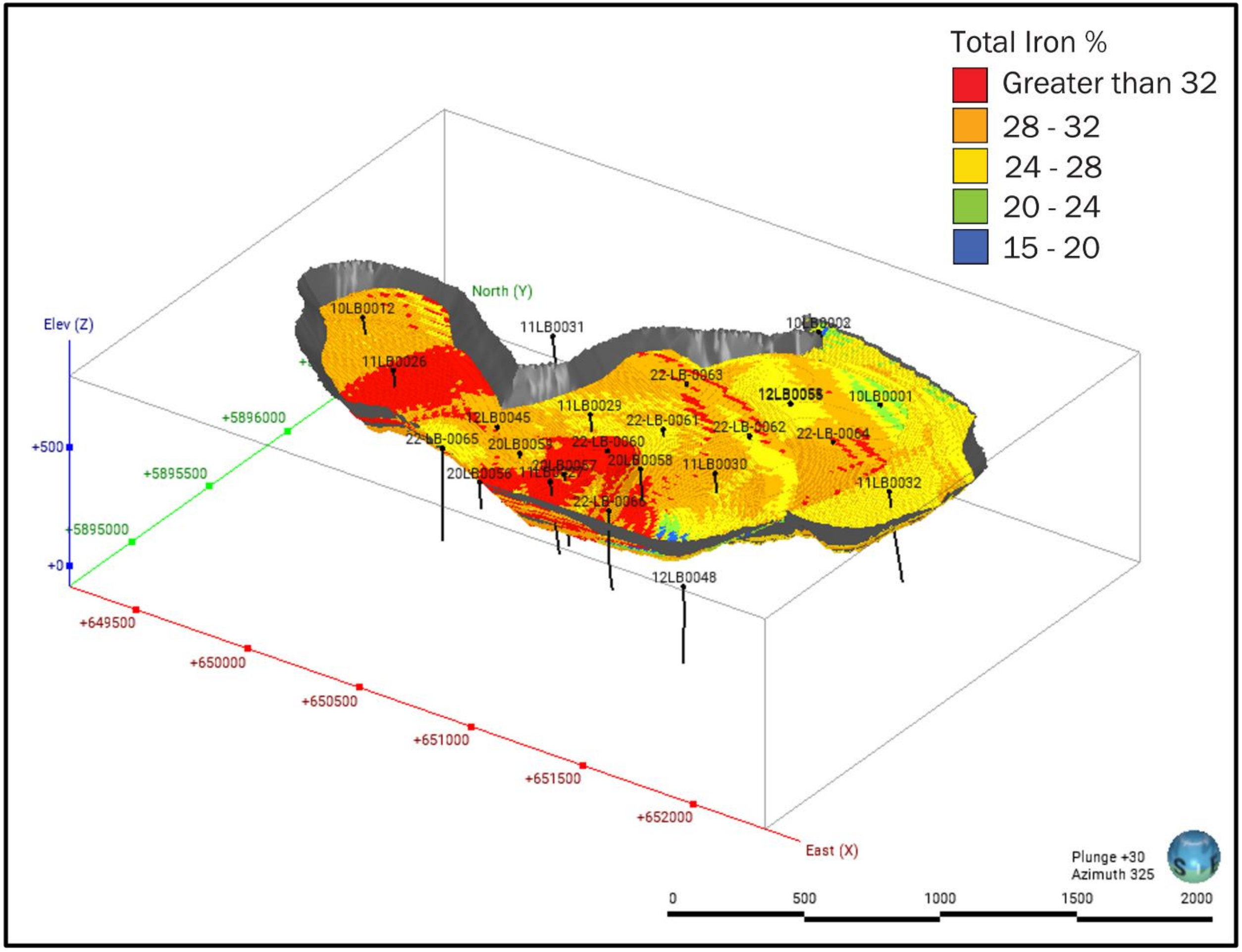


Figure 14—15: Oblique View Looking Northwest of Total Iron Values above the 15 % FeT Cut-off within Optimized Pit Shell (Grey)



(Mercator, 2023)

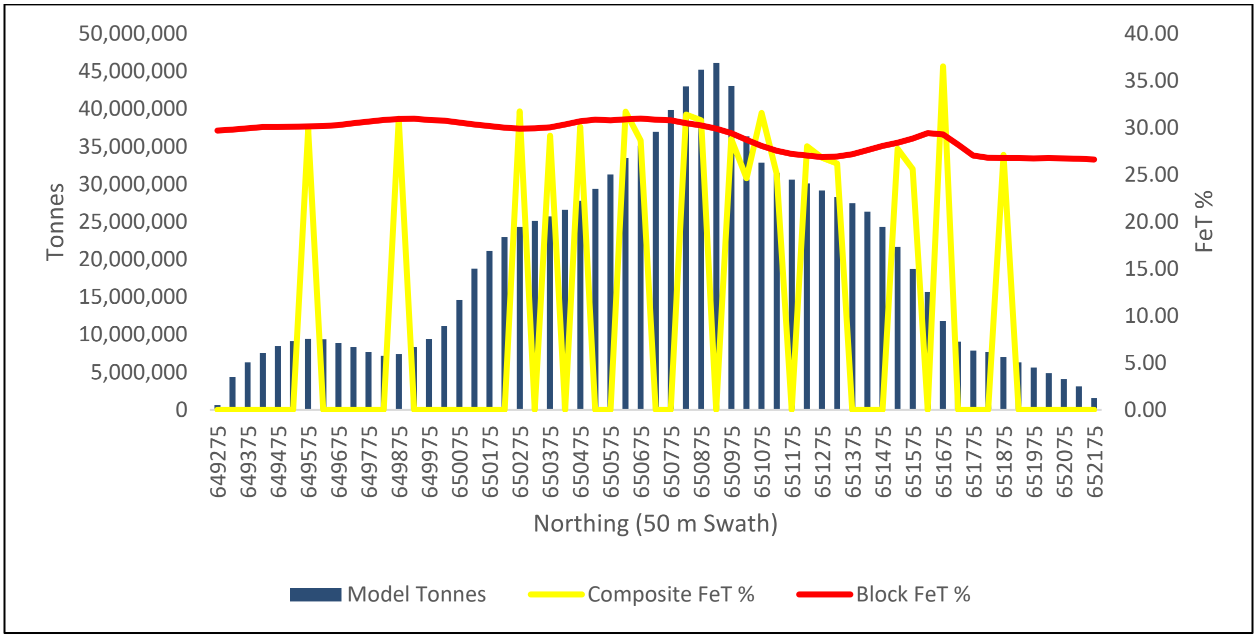
Descriptive statistics were calculated for the drill hole capped composite values used in block model grade interpolations and these were compared to values calculated for the individual blocks (Table 14-6). The mean weighted average drill hole capped composite grades for the deposit compares well with the respective block values.

Table 14-6: FeT Statistics for Block Values and 3 m Capped Down Hole Composites

Type	Blocks	Composites
Value	**FeT %**	**FeT %**
Number of samples	1,271,100	913
Minimum value	9.91	7.14
Maximum value	48.18	50.00
Mean	29.27	29.60
Variance	12.30	25.99
Standard Deviation	3.51	510
Coefficient of variation	0.12	0.17

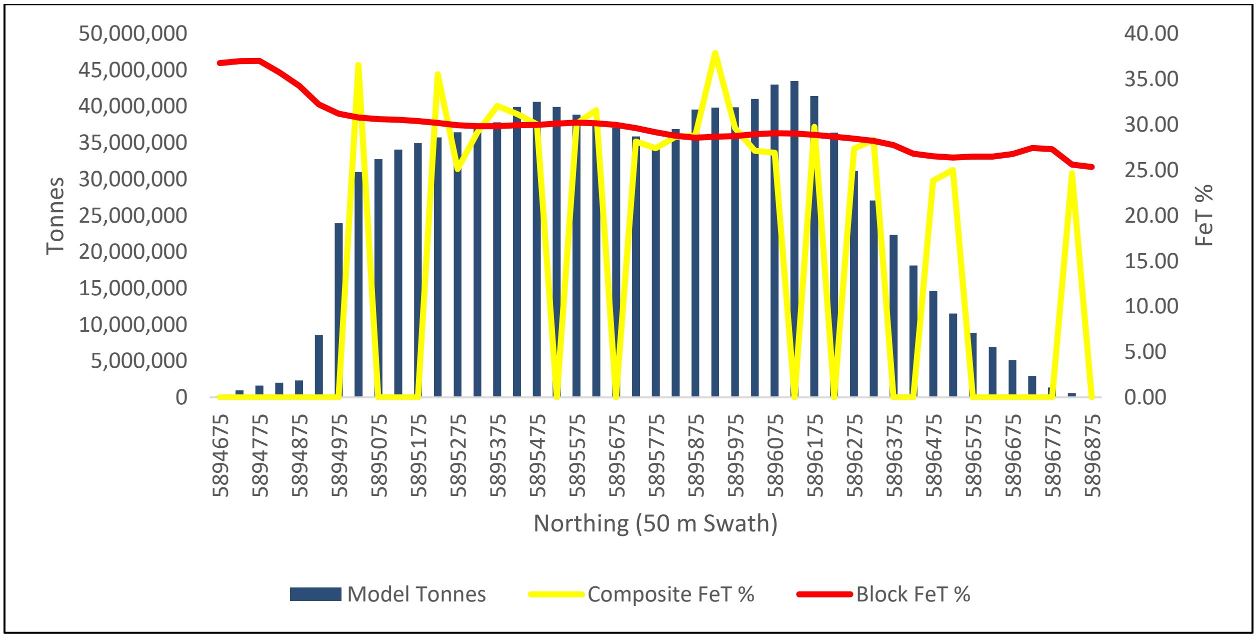
Mercator created swath plots in the easting, northing, and vertical directions comparing average composite grades and global volume weighted block grades (Figures 14-16 to 14.18). Swath plots of the deposit show an acceptable correlation between the two grade populations. Areas of higher variance between composite grades and block grades is typically related to low composite density and/or low tonnages.

Figure 14—16: East Swath Plot of Block Model and 3.0 m Capped Composite FeT % Grades



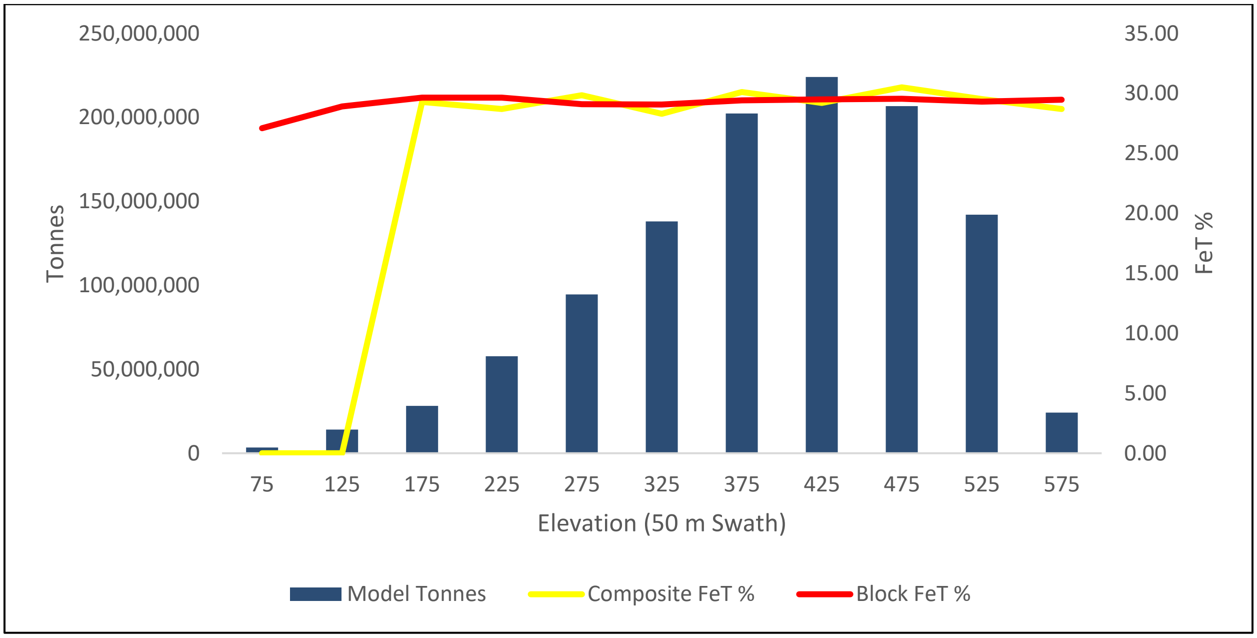
(Mercator, 2023)

Figure 14—17: North Swath Plot of Block Model and 3.0 m Capped Composite FeT % Grades



(Mercator, 2023)

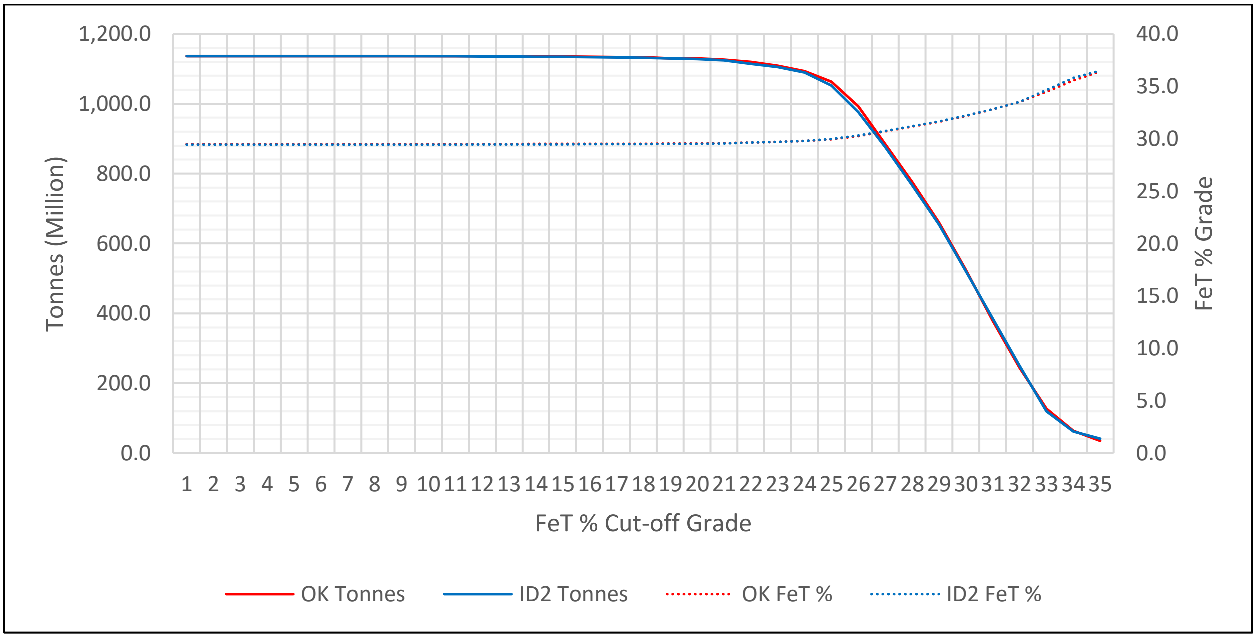
Figure 14—18: Elevation Swath Plot of Block Model and 3.0 m Capped Composite FeT % Grades



(Mercator, 2023)

Mercator completed a comparative interpolation model for total iron percent using ordinary kriging (OK) methods and the 3.0 m composite population as a check against the IDS interpolation results. Results are presented in Figure 14-19 and the models are considered acceptably comparable.

Figure 14—19: Grade and Tonnage Relationship of IDS and OK Interpolation Methodologies



(Mercator, 2023)

14.5 Reasonable Prospects for Eventual Economic Extraction

According to CIM's Definition Standards (May 10, 2014), for a deposit to be considered a Mineral Resource it must be proven that there are "reasonable prospects for eventual economic extraction". This requirement implies that the quantity and grade estimates meet certain economic thresholds and that the Mineral Resources are reported at an appropriate cut-off grade that takes into account extraction scenarios and processing recoveries. To determine the quantity of mineralization that shows a "reasonable prospect for eventual economic extraction" using open pit mining methods, the QP carried out a pit optimization analysis using the Economic Planner module of Hexagon's MinePlan 3D software. This analysis determines the economic limits of the open pit at a specified selling price, based on input of mining and processing costs, revenue per block, and operational parameters such as the metallurgical recovery, pit slopes and other imposed physical constraints. The pit optimization parameters that are presented in Table 14-7 are based on discussions with High Tide and benchmarking against similar projects.

It is important to note that the results from the pit optimization exercise are used solely for testing the "reasonable prospects for eventual economic extraction" by open pit mining methods and do not represent an economic study.

The cut-off grade calculated using the pit optimization parameters is 5% Fe. This cut-off grade was elevated to 15% Fe for the Mineral Resource estimate which is in line with current operations in the Labrador Trough.

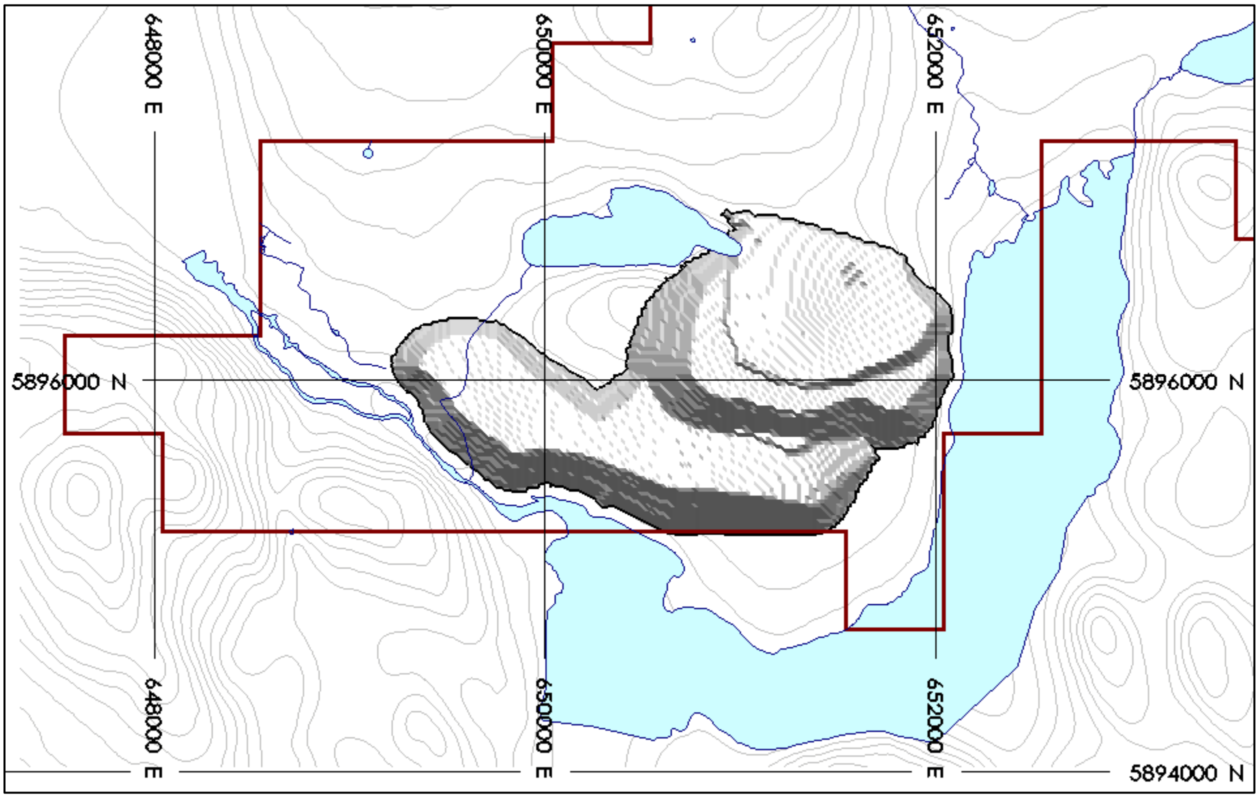
The pit optimization analysis was carried out using overall pit slopes of 50° and mining dilution and mining recovery were not considered. The pit shell was limited to Hightide resource's exploration claims and considers a 60 m offset from the lake. Figure 14-20 shows the pit shell in plan view.

Table 14-7: Cut-off grade and pit optimization parameters

Description	Unit	Value
Mining Cost	$/t mined	3.00
Processing Cost	$/t milled	4.55
Tailings & Water Management Cost	$/t milled	0.35
Mill Recovery	%	80
Concentrate Grade	%	65
Rail & Port	$/t (conc.)	18.00
G&A Cost	$/t (conc.)	5.00
Ocean Freight to China	$/t (conc.)	28.00
Sales Price (62% CFR China)	US$/t (conc.)	90.00
Fe Premium (increase from 62 % to 65 %)	US$/t (conc.)	12.00
Royalties	%	3
Total (US)	US$/t (conc.)	99.20
Exchange Rate	CDN$:US$	1.30
Total (CAN)	$/t (conc.)	129.00

*** All prices are listed in CAD$ unless otherwise specified**

Figure 14—20: Pit shell in plan view



(BBA, 2023)

14.6 Resource Category Parameters Used in Current Mineral Resource Estimate

Definitions of Mineral Resources and associated Mineral Resource categories used in this Report are those set out in the CIM Standards (May, 2014) as referenced in NI 43-101. Only the Inferred category has been assigned to the Labrador West deposit.

Several factors were considered in defining resource categories, including drill hole spacing, geological interpretations and number of informing assay composites and average distance of assay composites to block centroids. Specific definition parameters for each resource category applied in the current estimate are set out below.

Inferred Resources: Inferred Mineral Resources are defined as all blocks with interpolated total iron grades from 5 or more assay composites with a maximum average distance of 325 m to the block centroid, meet the pit-constrained cut-off grade, and occur within the property boundary.

To eliminate isolated and irregular category assignment artifacts, the peripheral limits of Inferred blocks in close proximity to each other and demonstrate reasonable continuity were wireframed and developed into discrete solid models. All blocks within the “Inferred category” solid models were re-classified to Inferred. This process resulted in continuous zones of Inferred mineral resources and removed occurrences of undesignated orphaned blocks.

14.7 Statement of Mineral Resource Estimate

Block grade, block density and block volume parameters for the deposit were estimated using methods described in preceding sections. Subsequent application of resource category parameters set out above resulted in the Mineral Resource estimate presented in Table 14-8. Mineral Resources are defined at a total iron cut-off grade of 15 %. The 15 % FeT cut-off grade is based on the parameters discussed in Section 14-5 above and reflect reasonable prospects for eventual economic extraction using conventional open pit mining methods. Results are reported in accordance with CIM Definition Standards (May, 2014). A cut-off grade sensitivity tabulation is presented in Table 14-9 for comparative purposes but does not constitute part of the Mineral Resource statement.

Table 14-8: Labrador West Project Mineral Resource Estimate – Effective Date: January 31, 2023*

Type	Cut-off (Fe %)	Category	Tonnes (Mt)	FeT %
Pit Constrained	15	Inferred	654.9	28.84

Notes:

1. Total iron (FeT) Mineral Resources include only oxide-facies iron formation (magnetite or hematite dominated).
2. Mineral Resources are defined within an optimized conceptual pit shell with an overall pit slope angle of 50º and a 1.3:1 strip ratio (waste: mineralized material)
3. Pit shell optimization parameters include: pricing of CDN $129 /tonne for 65% Fe concentrate, exchange rate of CDN$1.30 to US$ 1.00, mining cost at CDN $3.00/t, processing cost at CDN $4.55/t processed, tailings cost at CDN $0.35 processed, rail & port cost at CDN $18.00/t shipped, G & A Cost at CDN $5.00/t processed, Ocean Freight at $28.00/t shipped and mill recovery at 80%.
4. A cut-off grade of 15% FeT was selected for definition of the Mineral Resource.
5. Mineral Resources were estimated using Inverse Distance Squared methods applied to 3 m downhole assay composites. Iron grades were capped at 50 % FeT. Model block size is 20 m (x) by 20 m (y) by 12 m (z).
6. Bulk density for the block model was calculated from a linear regression relationship between FeT (%) and core specific gravity measurements from the Project. The average bulk density estimated for the deposit is 3.10 g/cm^3**.**
7. Mineral Resources may be materially affected by environmental, permitting, legal, title, taxation, sociopolitical, marketing, or other relevant issues.
8. Mineral Resources are not Mineral Reserves and do not have demonstrated economic viability.
9. Mineral Resource tonnages are rounded to the nearest 100,000.

Table 14-9: Cut-off Grade Sensitivity Analysis Within Mineral Resources

FeT Cutoff (%)	Category	Tonnes (Mt)	FeT %
5	Inferred	655.3	28.83
10	Inferred	655.3	28.83
15	Inferred	**654.9**	**28.84**
20	Inferred	652.6	28.87
25	Inferred	597.9	29.36

Notes: This table shows sensitivity of the January 31, 2023, Mineral Resource estimate to cut-off grade. The base case at a cut-off value of 15 % FeT is bolded for reference. See detailed notes on Mineral Resources in Table 14-8 of Section 14.7.

14.8 Project Risks that Pertain to the Mineral Resource Estimate

The accuracy of a Mineral Resource estimate is a result of the quantity and quality of available data and the assumptions and judgements used in the geological interpretation and engineering. This is, in part, dependent on analysis of drilling results and statistical conclusions which may prove to be unreliable or inaccurate. The estimation of a Mineral Resource is inherently uncertain, involves subjective judgement about many relevant factors, and may be materially affected by, among other things, environmental, permitting, legal, title, taxation, sociopolitical, and marketing issues. Inferred Mineral Resources are uncertain in nature and there has been insufficient exploration to define Inferred Mineral Resources as Indicated or Measured Mineral Resources. Mineral Resources are not Mineral Reserves and do not have demonstrated economic viability.

Factors that may materially impact the Mineral Resource include, but are not limited to, the following:

- Changes to the long-term iron prices assumptions including unforeseen long term negative market pricing trends, and changes to the CA$:US$ exchange rate
- Changes to the deposit scale interpretations of mineralization geometry and continuity
- Variance associated with density assignment assumptions and/or changes to the density values applied
- Inaccuracies of deposit modelling and grade estimation programs with respect to actual metal grades and tonnages contained within the deposit
- Changes to the input values for mining, processing, and G&A costs to constrain the Mineral Resource
- Changes to metallurgical recovery assumptions including metallurgical recoveries that fall outside economically acceptable ranges
- Variations in geotechnical, hydrological, and mining assumptions
- Changes in the assumptions of marketability of the final product
- Issues with respect to mineral tenure, land access, land ownership, environmental conditions, permitting, and social license

At this time, the QP does not foresee any other significant risks and uncertainties that could reasonably be expected to affect the reliability or confidence in the drilling information and associated Mineral Resource estimate disclosed in this Report. The QP is of the opinion that Mineral Resources were estimated using industry accepted practices and conform to the CIM Definition Standards (May 10, 2014) and CIM MRMR Best Practice Guidelines (November, 2019).

14.8.1 Comparison with Previous Mineral Resource Estimates

The January 31, 2023 Mineral Resource estimate is the maiden estimate for the deposit. There are no previous Mineral Resource estimates.

23.0 ADJACENT PROPERTIES

The Project is located 20 km northeast of the Carol Lake iron ore mining operations (Carol Lake) operated by IOC. Labrador Iron Ore Royalty Corporation (LIORC), directly and through its wholly-owned subsidiary Hollinger-Hanna Limited, holds a 15.10% equity interest in IOC. LIORC receives a 7% gross overriding royalty and Hollinger-Hanna receives a 10 cent per tonne fee on all iron ore products produced and sold by IOC. The remaining major IOC shareholders include Rio Tinto (58.72%) and Mitsubishi Corporation (26.18%).

The IOC iron ore deposits in the Carol Lake area occur as specular hematite and magnetite, generally in the ratio of 65%:35% (LIORC, 2023). The Mineral Reserve and Mineral Resource deposits, with an average iron grade of approximately 38%, occupy the middle iron unit of the Sokoman Formation overlain by waste rock. The deposits are intricately folded and overturned. The iron ore Mineral Reserve and Mineral Resource deposits at Carol Lake are close to the surface and thereby facilitate open-pit mining.

The total estimated iron ore Mineral Reserves and Mineral Resources at the IOC Carol Lake mine operations as of December 31, 2022, as disclosed by LIORC in its 2022 Annual Information Form (LIORC, 2023) is presented in Table 23-1. These were prepared in accordance with NI 43-101 and the CIM Standards (2014).

Table 23-1: IOC Carol Lake Mineral Reserves and Mineral Resources as of December 31, 2022

	Tonnes (Mt)	Average Iron Ore Grade (Fe %)
Mineral Reserves		
Proven Reserves	675	39
Probable Reserves	401	38
Total Proven and Probable Reserves	1,077	38
Mineral Resources		
Measured Resources	151	41
Indicated Resources	704	39
Total Measured and Indicated Resources	855	39
Inferred Resources	811	38

Notes:

(1) Source of information: Labrador Iron Ore Royalty Corporation (LIORC) Annual Information Form (AIF) for year-ended 2022, dated March 7, 2023 and filed on SEDAR under LIORC.

(2) Mineral Resources exclude Mineral Reserves. Mineral Resources are reported on an in-situ basis and Mineral Reserves are reported on an as-mined (i.e. net of dilution and mining losses) basis. In-situ and as-mined material is reported on a dry basis.

IOC has the nominal capacity to process up to 55 million tonnes of iron ore annually, and in 2022 a total of 44 million tonnes of iron ore was mined from four operating pits at Carol Lake (LIORC, 2023). IOC's concentrating plant in Labrador City has a nominal capacity to produce approximately 23.3 million tonnes of iron ore concentrate per year, depending on iron ore quality, for either direct shipping or as feed to

IOC's pellet plant. In 2022, approximately 19.1 million tonnes of iron ore concentrate were produced by IOC (LIORC, 2020).

The adjacent property discussed in this section contains broadly similar geology and structure to the Project. However, the QP has not independently verified the technical information for this adjacent property and information related to the adjacent property is not necessarily indicative of the mineralization potential on the Project. Furthermore, the Mineral Resource and Mineral Reserve estimates completed by the owner of this adjacent property and disclosed above have not been verified by the QP and are not necessarily indicative of the mineralization potential of the Project. As per Section 2.4(a) of NI 43-101, the source and date of these Mineral Resource and Reserve estimates have been disclosed above and in Section 27.

24.0 OTHER RELEVANT DATA AND INFORMATION

No additional information or explanation is required to make this Report understandable and not misleading.

25.0 INTERPRETATION AND CONCLUSIONS

25.1 Introduction

This Report summarizes the results of historical data compilation, diamond drilling and exploration by High Tide, and the maiden Mineral Resource estimate for the Project.

25.2 History

Rio Tinto completed a total of 19 drill holes on the Project and also completed LiDAR and airborne magnetic, electromagnetic, and gravity surveys. Based on results of these programs it was concluded that discovering an economically viable iron deposit in the area would require careful assessment of stratigraphic and lithological factors as well as structural factors such as folding and faulting that may have the effect of upgrading thinner mineralized units into structurally thickened, more economically attractive packages.

25.3 Exploration by High Tide (2020 and 2022 Diamond Drilling Programs)

A total of 11 diamond drill holes totalling 3,299 m have been drilled by High Tide on the property, including four NQ-diameter diamond drill holes totaling 1,000 m in 2020 and seven HQ/NQ-diameter diamond drill holes totaling 2,299 m in 2022. The two diamond drill hole programs confirm the iron grade continuity between the widely spaced historical Rio Tinto drill holes completed on the property from 2010 to 2012 and provide the necessary spacing to interpret a geological model and prepare an inferred Mineral Resource.

All 11 drill holes completed by High Tide intersected intervals of oxide facies iron formation, containing abundant specular hematite and/or magnetite that are variably interbedded with typically altered lithologies that assign to silicate and carbonate iron formation facies. These results are directly comparable to the positive results returned previously for the four historical Rio Tinto drill holes that are located in the immediate area of the 2020 core drilling program.

Detailed evaluation of the historical Rio Tinto datasets and the 2020 and 2022 core drilling results have resulted in the development of high priority target areas for future drilling programs. Deposit infill drilling, deposit extension drilling and new target assessment drilling within the Project area are all warranted at this time. To date, exploration has been focused on the assessment of the thickening of synclinal structures within the Labrador West Trough and this will continue to be an important exploration tool on Labrador West property. The 2020 and 2022 diamond drilling results have defined substantial thicknesses and total iron grades for the areas drilled to date and these results correlate well with those for nearby Rio Tinto historical drill holes.

25.4 Geology and Mineralization

The 2022 diamond drilling program completed by High Tide (7 holes, 2,299 m) provided the necessary drill hole spacing (nominal 300 m spacing) to interpret and model the deposit geology. Oxide-facies iron formation solids from the geological model provides the constraining domains for the Mineral Resource estimate. The deposit is interpreted to consist of stacked sequences of the Sokomon Iron formation dipping to the south-southwest, resulting in repeat sequences of oxide and silicate-carbonate facies iron formation. A south-southwest dipping quartzite (presumable the Wishart Formation) was used a marker bed for the structural interpretation. Oxide-facies solid models consist of thickened (up to 150 m) 'slabs' of hematite-dominated oxide-facies iron formation and thin 'lenses' (up to 35 m in thickness) of magnetite-dominated oxide facies hosted by silicate-carbonate facies iron formation.

25.5 Mineral Resource Estimate

The definition of Mineral Resource and associated Mineral Resource categories used in this Report are those recognized under NI 43-101 and set out in CIM Definition Standards (May, 2014).

The Mineral Resource estimate was prepared under the supervision of QP author Mr. Matthew Harrington, P. Geo., with an effective date of January 31, 2022. A summary of the Labrador West Mineral Resource constrained within a conceptual open pit shell is presented in Table 25-1. Assumptions, metal threshold parameters and deposit modelling methodologies associated with the Mineral Resource are summarized in notes underneath Table 25-1.

Factors that may materially impact the Project Mineral Resource include, but are not limited to, the following:

- Changes to the long-term iron prices assumptions including unforeseen long term negative market pricing trends, and changes to the CA$:US$ exchange rate;
- Changes to the deposit scale interpretations of mineralization geometry and continuity;
- Variance associated with density assignment assumptions and/or changes to the density values applied;
- Inaccuracies of deposit modelling and grade estimation programs with respect to actual metal grades and tonnages contained within the deposit;
- Changes to the input values for mining, processing, and G&A costs to constrain the Mineral Resource;
- Changes to metallurgical recovery assumptions including metallurgical recoveries that fall outside economically acceptable ranges;
- Variations in geotechnical, hydrological, and mining assumptions;
- Changes in the assumptions of marketability of the final product;
- Issues with respect to mineral tenure, land access, land ownership, environmental conditions, permitting, and social license;

Table 25-1: Labrador West Project Mineral Resource Estimate – Effective Date: January 31, 2023*

Type	Cut-off (Fe %)	Category	Tonnes (Mt)	FeT %
Pit Constrained	15	Inferred	654.9	28.84

Notes:

10. Total iron (FeT) Mineral Resources include only oxide-facies iron formation (magnetite or hematite dominated).
11. Mineral Resources are defined within an optimized conceptual pit shell with an overall pit slope angle of 50° and a 1.3:1 strip ratio (waste: mineralized material)
12. Pit shell optimization parameters include: pricing of CDN $129 /tonne for 65% Fe concentrate, exchange rate of CDN$1.30 to US$ 1.00, mining cost at CDN $3.00/t, processing cost at CDN $4.55/t processed, tailings cost at CDN $0.35 processed, rail & port cost at CDN $18.00/t shipped, G & A Cost at CDN $5.00/t processed, Ocean Freight at $28.00/t shipped and mill recovery at 80%.
13. A cut-off grade of 15% FeT was selected for definition of the Mineral Resource.
14. Mineral Resources were estimated using Inverse Distance Squared methods applied to 3 m downhole assay composites. Iron grades were capped at 50 % FeT. Model block size is 20 m (x) by 20 m (y) by 12 m (z).
15. Bulk density for the block model was calculated from a linear regression relationship between FeT (%) and core specific gravity measurements from the Project. The average bulk density estimated for the deposit is 3.10 g/cm^3**.**
16. Mineral Resources may be materially affected by environmental, permitting, legal, title, taxation, sociopolitical, marketing, or other relevant issues.
17. Mineral Resources are not Mineral Reserves and do not have demonstrated economic viability.
18. Mineral Resource tonnages are rounded to the nearest 100,000.

25.6 Metallurgical Testing

The metallurgical tests completed to date have produced results indicating that the production of a saleable concentrate was achievable through the use of gravity separation methods at production and recovery rates similar to those typically obtained for other iron projects in the area for some samples sourced from the hematite-dominant zone of the resource.

26.0 RECOMMENDATIONS

26.1 Geology and Mineral Resources

The following activities are recommended to improve confidence in the geological interpretation and definition of Mineral Resources:

- An infill core drilling program of 4,000 m directed towards upgrading Inferred Mineral Resources to the Indicated category (25% to 50% conversion rate)
- A mineralogical study (QEMSCAN, XRF or hyperspectral) to identify geochemical proxies that can be used to quantify iron phases and define geometallurgical domains as recommended below in Section 26.2
- An updated Indicated and Inferred Mineral Resource estimate for the Project inclusive of the recommended drill program results
- Preparation of a Preliminary Economic Assessment (PEA)

26.2 Recommended Metallurgical Work

Based on these metallurgical results to date, the QP recommends to further define the resource in terms of rock competency, mineralogy and metallurgical performance and to evaluate the economical potential of the project.

26.2.1 Sample selection

Now that a block model has been generated, a first set of geometallurgical domains should be created, and sample selection should be organized to ensure that all domains are represented. Samples should be selected based on the resource’s:

- Overall iron content;
- Hematite content;
- Magnetite content;
- Geothite-limonite content;
- Potential hardness/competency;
- Spatial location.

Once a first mining plan has been generated, sample selection should also take into account the mining sequence and the possibility of blending material coming from different areas.

26.2.2 Core/sample characterization

To facilitate the creation of geometallurgical domains, the QP recommends to:

- Develop a magnetite content proxy through the correlation of SAT analysis and magnetic iron content;

- Evaluate the potential of developing a geothite-limonite content proxy through the correlation of H_2O analysis and mineralogical characterization or through additional Loss on Ignition (LOI) tests;
- Analyze sulfur content of the samples;
- Identify samples that showed presence of fibrous minerals and, if necessary, perform asbestos testing on them;
- Evaluate the potential of including tests to characterize rock competency/hardness to understand variability through the deposit and the possibility of using this information as a proxy for grindability;
- Perform mineralogical analysis on certain samples to better understand mineral liberation size and associations.

26.2.3 Metallurgical tests

The next stage of metallurgical testwork program should focus on further defining the variability of the metallurgical response of the minerals of interest within the resource. As such, the next steps should be to reproduce the testwork completed to date on a larger quantity of samples, selected and composited to represent various geometallurgical domains.

- SPI and Bond grindability testwork;
- Davis Tube tests at various grind size;
- Heavy Liquid Separation or Wilfley Table tests at various grind size.

A few tests including multiple stages of grinding and beneficiation could also be considered at this stage to support future flowsheet selection.

26.3 Recommended Budget

The recommended work program is broken down into two phases of work (Table 26-1). The first phase focuses on environmental baseline studies, metallurgical studies, analytical work, and desktop studies in advance of a PEA. The second phase reflects preparation of an updated Mineral Resource Estimate and PEA for the Project and includes completion of a 4,000 m diamond drill program, for the purpose of upgrading of 25 – 50 % of Inferred Mineral Resources to the Indicated category, along with continued environmental baseline and metallurgical studies. The proposed work program includes price estimates for the necessary diamond drilling, metallurgical testwork and environmental evaluations to meet these objectives.

Table 26-1: Recommended Work Program Budget for the Project

Phase 1	Task	Estimated Cost
	Environmental Baseline Study (year 1)	$200,000
	Metallurgical Studies (composites, gravity, mag., flotation)	$270,000
	Desktop Study (prelude to PEA)	$130,000
	Additional Analytical Work (trace element, polished section, etc.)	$100,000
	Phase 1 subtotal	**$700,000**
	1,000 m Contingency Drilling for Sample Material - Optional	$800,000
	Phase plus Optional	**$1,500,000**
Phase 2	**Task**	**Estimated Cost**
	4,000 m Drill Program – Target 25 - 50% Upgrade of Inferred Mineral Resource to Indicated	$3,200,000
	Updated Mineral Resource Estimate	$100,000
	Preliminary Economic Analysis Estimate (PEA)	$250,000
	Environmental Baseline/Data Collection	$750,000
	Metallurgical (beneficiation, pelletisation, basket test work (DRI/HBI)	$1,250,000
	Phase 2 subtotal	**$5,550,000**
	Phase 1 & 2 contingency 10%	$705,000
	Phase 1 & 2 Total	**$7,755,000**

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28.0 AUTHOR CERTIFICATE

Certificate of Author – Ryan D. Kressall, P. Geo.

I, Ryan D. Kressall, P.Geo., do hereby certify that:

1. I am currently employed as Director of Geoscience and Senior Geologist/Geochemist with Mercator Geological Services Limited, 65 Queen Street, Dartmouth, Nova Scotia, Canada.
2. The Technical Report (Report) to which this certificate applies is titled "National Instrument 43-101 Technical Report, Mineral Resource Estimate, Labrador West Iron Project, Newfoundland and Labrador, Canada with an effective date of January 31, 2023, and a signature date of April 6, 2023. The Report was prepared for High Tide Resources Corp.
3. I hold a Bachelor of Science degree (Honours, Physical Geography) in 2008 and a Master of Science degree (Geology) in 2012 from the University of Manitoba; and I have worked as a geologist in Canada since 2010. My relevant experience with respect to this Project includes extensive professional experience within geology and exploration activities in Canada.
4. I am a member in good standing of the Association of Professional Geoscientists of Nova Scotia (Registration Number 0295) and the Association of Professional Engineers and Geoscientists of Newfoundland and Labrador (Member Number 11091).
5. I have read the definition of a "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, and past relevant work experience, I fulfill the requirements to be a "Qualified Person" for the purposes of NI 43-101.
6. I completed a personal inspection of the Labrador West Iron Project in June, 2022 and I have been actively involved in the management of the Labrador West project since July, 2021.
7. I am responsible for Sections 1 except 1.6 and 1.7, 2 through 12, 23, 24, 25 except 25.5 and 25.6, and 26 except 26.2.
8. I am independent of High Tide Resources Corp. as described in Section 1.5 of NI 43-101.
9. I had prior involvement with the property that is the subject of this Report as providing geological consulting services for the 2022 exploration programs.
10. I have read NI 43-101 and this Report has been prepared in compliance with NI 43-101 and Form 43-101F1.

As of the effective date of this Report, to the best of my knowledge, information and belief, this Report contains all scientific and technical information that is required to be disclosed to make this Report not misleading.

Signed this 6th day of April 2023 in Dartmouth, Nova Scotia, Canada

[Original signed and sealed "Ryan Kressall"]

____

Ryan Kressall, B.Sc., MSc, P.Geo.
Director of Geoscience, Mercator Geological Services Ltd.

Certificate of Author - Matthew D. Harrington, P. Geo.

I, Matthew D. Harrington, P.Geo., do hereby certify that:

1. I am currently employed as President and Senior Resource Geologist with Mercator Geological Services Limited, 65 Queen Street, Dartmouth, Nova Scotia, Canada.
2. The Technical Report (Report) to which this certificate applies is titled "National Instrument 43-101 Technical Report, Mineral Resource Estimate, Labrador West Iron Project, Newfoundland and Labrador, Canada with an effective date of January 31, 2023, and a signature date of April 6, 2023. The Report was prepared for High Tide Resources Corp.
3. I hold a Bachelor of Science degree (Honours, Geology) in 2004 from Dalhousie University and I have worked as a geologist in Canada and internationally since my graduation. My relevant experience with respect to this Project includes extensive professional experience within geology, mineral resource estimation, mineral deposit evaluation, and exploration activities in Canada and internationally.
4. I am a member in good standing of the Association of Professional Geoscientists of Nova Scotia (Registration Number 0254), the Association of Professional Engineers and Geoscientists of Newfoundland and Labrador (Member Number 09541), and the Order des Geologues du Quebec (Registration Number 2345).
5. I have read the definition of a "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, and past relevant work experience, I fulfill the requirements to be a "Qualified Person" for the purposes of NI 43-101.
6. I have not visited he property that is subject of this Report.
7. I am responsible for Sections 1.7, 14 except 14.5, and 25.5 of this Report.
8. I am independent of High Tide Resources Corp. as described in Section 1.5 of NI 43-101.
9. I had prior involvement with the property that is the subject of this Report as providing geological consulting services for the 2020 and 2022 exploration programs.
10. I have read NI 43-101 and this Report has been prepared in compliance with NI 43-101 and Form 43-101F1.

As of the effective date of this Report, to the best of my knowledge, information and belief, this Report contains all scientific and technical information that is required to be disclosed to make this Report not misleading.

Signed this 6th day of April 2023 in Dartmouth, Nova Scotia, Canada

[Original signed and sealed "Matthew Harrington"]

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Matthew Harrington, B.Sc., P.Geo.
President, Mercator Geological Services Ltd.

Certificate of Author – Catherine Pelletier, P.Eng..

I, Catherine Pelletier, P.Eng., do hereby certify that:

1. I am currently employed as Process Engineer with BBA, 990 de l'Église Rd, Suite 590, Quebec, Quebec, G1V 3V5, Canada.
2. The Technical Report (Report) to which this certificate applies is titled "National Instrument 43-101 Technical Report, Mineral Resource Estimate, Labrador West Iron Project, Newfoundland and Labrador, Canada" with an effective date of January 31, 2023, and a signature date of April 6, 2023. The Report was prepared for High Tide Resources Corp.
3. I have a bachelor's degree in Material Science and Metallurgy from Laval University. I graduated in 2010 and have worked as a process engineer since 2010. My relevant experience with respect to this Project includes work in operations and on iron ore projects in the Labrador Trough.
4. I am a member in good standing of the Association of Professional Engineers and Geoscientists of Newfoundland and Labrador (PEGNL Member #11089).
5. I have read the definition of a "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, and past relevant work experience, I fulfill the requirements to be a "Qualified Person" for the purposes of NI 43-101.
6. I did not visit the property that is the subject of this Report.
7. I am responsible for Sections 1.6, 13, 25.6 and 26.2 of this Report.
8. I am independent of High Tide Resources Corp. as described in Section 1.5 of NI 43-101.
9. I have no prior involvement with the property that is the subject of this Report.
10. I have read NI 43-101 and this Report has been prepared in compliance with NI 43-101 and Form 43-101F1.

As of the effective date of this Report, to the best of my knowledge, information and belief, this Report contains all scientific and technical information that is required to be disclosed to make this Report not misleading.

Signed this 6th day of April 2023 in Montreal, Quebec, Canada

[Original signed and sealed "Catherine Pelletier"]

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Catherine Pelletier, P.Eng.
Process Engineer, BBA.

Certificate of Author – Jeff Cassoff, P.Eng.

I, Jeffrey Cassoff, P.Eng., do hereby certify that:

1. I am currently employed as a Senior Mining Engineer with BBA, 2020 Robert-Bourassa Blvd., Suite 300, Montreal, Quebec, H3A 2A5, Canada.
2. The Technical Report (Report) to which this certificate applies is titled “National Instrument 43-101 Technical Report, Mineral Resource Estimate, Labrador West Iron Project, Newfoundland and Labrador, Canada” with an effective date of January 31, 2023, and a signature date of April 6, 2023. The Report was prepared for High Tide Resources Corp.
3. I graduated from McGill University of Montréal with a B. Eng. in Mining in 1999. My relevant experience with respect to this Project includes extensive work on iron ore projects in the Labrador Trough and Internationally
4. I am a member in good standing of the Association of Professional Engineers and Geoscientists of Newfoundland and Labrador (PEGNL Member #06205).
5. I have read the definition of a “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, and past relevant work experience, I fulfill the requirements to be a “Qualified Person” for the purposes of NI 43-101.
6. I did not visit the property that is the subject of this Report.
7. I am responsible for Section 14.5 of this Report.
8. I am independent of High Tide Resources Corp. as described in Section 1.5 of NI 43-101.
9. I have no prior involvement with the property that is the subject of this Report.
10. I have read NI 43-101 and this Report has been prepared in compliance with NI 43-101 and Form 43-101F1.

As of the effective date of this Report, to the best of my knowledge, information and belief, this Report contains all scientific and technical information that is required to be disclosed to make this Report not misleading.

Signed this 6th day of April 2023 in Montreal, Quebec, Canada

[Original signed and sealed “Jeff Cassoff”]

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Jeffrey Cassoff, P.Eng.
Team Leader – Mining Engineering, BBA.