

CHAMPION IRON UPDATES MINERAL RESOURCES AND RESERVES FOR ITS BLOOM LAKE OPERATIONS

Drilling Confirms Continuity and Expansion Potential of Bloom Lake Beyond Life-of-Mine Plan
Measured and Indicated Resources Increase by 40%
Inferred Resources Increase by 360%

Montréal, August 22, 2023 (Sydney, August 23, 2023) - Champion Iron Limited (TSX: CIA) (ASX: CIA) (OTCQX: CIAFF) ("Champion" or the "Company") announces updated mineral resource and reserve estimates (the "Mineral Resource and Reserve Estimate"), along with accompanying life-of-mine ("LoM") plan, prepared pursuant to National Instrument 43-101 – Standards of Disclosure for Mineral Projects ("NI 43-101") for the Bloom Lake Mining Complex ("Bloom Lake"), located near the town of Fermont, in north-eastern Québec. The technical report with respect to the Mineral Resource and Reserve Estimate and the LoM plan for Bloom Lake (the "2023 Technical Report") will be filed under the Company's profile on SEDAR+ at www.sedarplus.ca within 45 days of the date of this press release.

Highlights

- Optimized mine plan, confirming the 18 years' LoM based on the mineral reserves
- Expanded opportunity beyond the LoM plan, including an increase to the measured and indicated ("M&I") resources by 40% and an increase to the inferred resources by 360%
- LoM average iron metallurgical recovery of 82.0% and plant feed grade of 28.6% Fe
- Average LoM yearly production of 15.2 million wet metric tonnes of high purity iron ore concentrate at 66.2% Fe

Champion CEO, Mr. David Cataford, commented, "The combination of our expanded mineral resources, skilled workforce and supportive local stakeholders positions our Company to continue to positively impact the region for generations. The Labrador Trough, including Bloom Lake, contains one of the largest and purest iron ore resources globally and offers a unique opportunity for local stakeholders to participate in reducing steel industry emissions, which represents nearly 10% of global emissions. In tandem with our vision to be a global leader in the green steel supply chain, we continuously strive to minimize our impact on the environment in keeping with our corporate values and respect for the land where we operate."

Mineral Resource and Reserve Estimate Summary

Since the previously issued NI 43-101 Technical Report entitled "Bloom Lake Mine Feasibility Study Phase 2, Fermont, Québec, Canada" with an effective date of June 20, 2019 (the "2019 Technical Report"), additional work programs were completed by the Company, including diamond drilling and advanced modelling to optimize mining and processing of the deposit. Additionally, a revised assessment of iron ore prices resulted in higher prices assumption compared to the 2019 Technical Report, which, together with the additional work programs, resulted in an increase of 40% in the estimated M&I mineral resources for Bloom Lake. While the LoM plan and the pit designs have been optimized, the change in mineral reserves is not material.

Mineral Resources

SRK Consulting (U.S), Inc. ("SRK") was retained to audit the mineral resources model for Bloom Lake completed by the Company. Since the 2019 Technical Report, the Company drilled an additional 106 core boreholes [18,465 metres], representing an increase of 13% in core boreholes drilled metres. The infill drilling completed at Bloom Lake resulted in the successful conversion of inferred resources to indicated resources. Furthermore, the infill drilling demonstrated continuity of iron mineralization, enabling for grade continuity to be established and estimated. This, combined with the revised IODEX 65% Fe CFR China Index ("P65") price assumption, resulted in a significantly larger estimated resource pit shell compared to the 2019 Technical Report model. Offsetting this increase in mineral resources includes the depletion of resources based on topographic differences between January 1, 2020, and the forecasted April 1, 2023, accounting for a reduction of the mineral resources by 67 million tonnes.

Table 1: 2023 Mineral resource Estimate for Bloom Lake at a Cut-Off Grade of 15% Fe (Audited Mineral Resources Statement, Bloom Lake by SRK, March 31, 2023)

Classification	Tonnage	Fe	CaO	Sat	MgO	Al ₂ O ₃
	Mt	%	%	%	%	%
Measured	186.7	30.4	1.3	5.5	1.3	0.3
Indicated	1,065.5	28.4	1.3	6.1	1.2	0.5
Total M&I	1,252.2	28.7	1.3	6.0	1.2	0.5
Inferred	246.3	26.6	1.4	6.4	1.2	0.5

Table 1 notes:

1. Mineral resources are not mineral reserves and have not demonstrated economic viability under the assumptions contained in the 2023 Technical Report. All figures have been rounded to reflect the relative accuracy of the estimates.
2. The resource estimate is reported undiluted at a cut-off grade of 15% iron.
3. The 2023 resource shell is based on a long-term P65 iron price of US\$110.24/dmt, a premium of US\$2.04/dmt for the 66.2% Fe concentrate and an exchange rate of 1.27. It was made using Geovia Whittle (software version 4.7.2).
4. The qualified person ("QP") for the mineral resource estimate, as defined by NI 43-101, is Erik Ronald, P. Geo., of SRK. The effective date of the estimate is April 1, 2023.
5. The geological interpretations for the Bloom Lake deposit were based on lithological logging, analyses from drill core, grade control data, geological maps, historical models, and ground magnetic surveys. The geology and controls on the mineralization are considered well understood.
6. The mineralized iron formation units in the lithology model include iron formation, silica iron formation, and limonite. The iron formation model further differentiates the iron formation units into operational quality categories of low (under 0.6%), moderate and elevated (over 16%) CaO + MgO values.
7. All 3D digital geological modelling was performed using Leapfrog Geo™ software. In the QP's opinion, the geological model is appropriate for the size, grade distribution, and geometry of the mineralized zones and is suitable for mineral resource estimation of the Bloom Lake project.
8. The mineral resource model is based on 6.0 m composite intervals within the iron formation. Grade capping was reviewed but deemed unnecessary and was not applied. Ordinary kriging (OK) was used for the estimation of CaO, Fe, MgO, and SAT. Al₂O₃ was estimated into the block model using inverse distance weighting to a power of three (ID3) estimation.
9. Mineral Resources were classified into measured, indicated, and inferred mineral resources categories based on the geological understanding of mineralization and structure on the property, the quality of the underlying drilling data, history of mining production and reconciliation, mineralization and grade continuity, and drillhole spacing.
10. The QP is satisfied that the mineral resources were estimated following CIM Estimation of Mineral Resource and Mineral Reserves Best Practices Guidelines (November 2019). The mineral resources may be affected by further infill and exploration drilling that may result in increases or decreases in subsequent mineral resource estimates. The mineral resources may also be affected by subsequent assessments of mining, environmental, processing, permitting, taxation, socio-economic, and other factors.

Mineral Reserves

The mineral reserves for Bloom Lake are estimated at 716 million tonnes at an average grade of 28.6% Fe as summarized in Table 2. The mineral reserve estimate was prepared by the Company and the resource block model was prepared by the Company and audited by SRK. The mineral reserve estimate stated herein is consistent with the Canadian Institute of Mining, Metallurgy and Petroleum ("CIM") Definition Standards on mineral resources and reserves ("CIM Definition Standards"). As such, the mineral reserves are based on M&I mineral resources and do not include any inferred mineral resources, which are classified as waste within the mine design. While the pits were optimized, their scope and size are very similar to those previously published in the 2019 Technical Report. The pits redesign was based on Pseudoflow shells with an updated cost model and a more conservative iron ore price of US\$99/dmt for P65, compared to the resource shells.

Table 2: 2023 Mineral Reserve Estimate for Bloom Lake at a Cut-Off Grade of 15% Fe.

Classification	Diluted Tonnage	Diluted Fe	CaO	Sat	MgO	Al ₂ O ₃
	Mt	%	%	%	%	%
Proven	183.7	30.0	1.3	5.6	1.3	0.3
Probable	532.5	28.1	2.1	9.2	2.0	0.5
Total Proven & Probable	716.2	28.6	1.9	8.3	1.8	0.4
<i>Waste (Includes Inferred Resources)</i>	<i>685.7</i>	-	-	-	-	-

Table 2 notes:

1. The mineral reserves were estimated using the Canadian Institute of Mining, Metallurgy and Petroleum (CIM) Standards for Mineral Resources and Reserves, Definitions and Guidelines prepared by the CIM Standing Committee on Reserve Definitions and adopted by the CIM Council on May 10, 2014.
2. The QP for the mineral reserve estimate, as defined by NI 43-101, is Olivier Hamel, P. Eng., of Quebec Iron Ore Inc. ("QIO"), a subsidiary of the Company. The effective date of the estimate is April 1, 2023.
3. In the ultimate pit design, all measured resources and associated dilution/ore loss were converted to proven mineral reserves. All indicated resources and associated dilution/ore loss were converted into probable mineral reserves.
4. Stockpiles are excluded from reserve calculations due to their small size (<1 Mt).
5. Bulk density of ore is variable but averages 3.39 t/m³ (pre-dilution).
6. Remaining strip ratio is 0.96:1 (including overburden).
7. Mining dilution was calculated using a 2-m contact skin.
8. The average mining dilution is 1.73% at a grade of 0% Fe. Dilution was applied block by block and shows a wide range of local variability.
9. The average ore loss is 1.91% at a grade of 29% Fe. Ore loss was applied block by block and shows a wide range of local variability.
10. Mineral reserves are based on a mining surface projected to April 1, 2023. The last survey was done in Q3 2022.
11. Mineral reserves are estimated at a cut-off grade of 15% Fe (diluted), which has historically been used. Current cost/revenue model allows to calculate a break-even cut-off grade and the result of 14.1% Fe supports the current practices.
12. Mineral reserves are estimated using a long-term iron ore reference price (Platt's 65%) of USD99/dmt and an exchange rate of 1.27 CAD/USD. A price adjustment to 66.2% of USD1.83/dmt was added.
13. Reserve open pit optimization was conducted using Geovia Whittle (software version 4.7.2) to determine the optimal economic shape of the open pit to guide the pit design process.
14. SAT stands for SATMAGAN, an industry standard device that measures the magnetic content by weight of a sample. This value is assumed to be the magnetite content by weight.
15. The author is not aware of any known environmental, permitting, legal, title-related, taxation, socio-political or marketing issues, or any other relevant issues not reported in the 2023 Technical Report, that could materially affect the mineral reserve estimate.
16. Numbers may not add up due to rounding.

Direct Reduction Pellet Feed Project

On January 26, 2023, the Company announced the positive results of a study evaluating the processing and infrastructure required to modify the Bloom Lake Phase II plant to improve its product from a 66.2% Fe iron ore concentrate to a Direct Reduction Pellet Feed quality iron ore at 69% Fe (the "DRPF Project"). The DRPF Project was not considered in the 2023 Technical Report as the project is pending final investment decision. As such, the mine plan, cost model and sales described herein are based entirely on Bloom Lake's current infrastructure and iron ore concentrate quality of 66.2% Fe.

The DRPF Project could impact the mineral resources and mineral reserves for Bloom Lake. Pending a final investment decision and the advancement of the DRPF Project, its impact on the profitability of uneconomic ore should be assessed. As a result, the ultimate pit size, cut-off grades and material routing could be modified.

About Champion Iron Limited

Champion, through its wholly-owned subsidiary Quebec Iron Ore Inc., owns and operates the Bloom Lake Mining Complex, located on the south end of the Labrador Trough, approximately 13 km north of Fermont, Québec. Bloom Lake is an open-pit operation with two concentrators that primarily source energy from renewable hydroelectric power. The two concentrators have a combined nameplate capacity of 15 Mtpa and produce a low contaminant high-grade 66.2% Fe iron ore concentrate with a proven ability to produce a 67.5% Fe

direct reduction quality iron ore concentrate. In January 2023, the Company announced the positive findings of a study evaluating the upgrade of half of the Bloom Lake mine capacity to a direct reduction quality pellet feed iron ore and approved an initial budget to advance the project. Bloom Lake's high-grade and low contaminant iron ore products have attracted a premium to the Platts IODEX 62% Fe iron ore benchmark. The Company ships iron ore concentrate from Bloom Lake by rail, to a ship loading port in Sept-Îles, Québec, and has sold its iron ore concentrate to customers globally, including in China, Japan, the Middle East, Europe, South Korea, India and Canada. In addition to Bloom Lake, Champion owns a portfolio of exploration and development projects in the Labrador Trough, including the Kamistiatusset Project, located a few kilometres south-east of Bloom Lake, and the Consolidated Fire Lake North iron ore project, located approximately 40 km south of Bloom Lake.

Cautionary Note Regarding Forward-Looking Statements

This press release includes certain information and statements that may constitute "forward-looking information" under applicable securities laws. Forward-looking statements are statements that are not historical facts and are generally, but not always, identified by the use of words such as "plans", "expects", "is expected", "budget", "scheduled", "estimates", "continues", "forecasts", "projects", "predicts", "intends", "anticipates", "aims", "targets" or "believes", or variations of, or the negatives of, such words and phrases, or state that certain actions, events or results "may", "could", "would", "should", "might" or "will" be taken, occur or be achieved. Inherent in forward-looking statements are risks, uncertainties and other factors beyond the Company's ability to predict or control.

Specific Forward-Looking Statements

All statements other than statements of historical facts included in this press release that address future events, developments or performance that Champion expects to occur are forward-looking statements. Forward-looking statements include, among other things, Management's expectations regarding: (i) Bloom Lake's life of mine, recovery rates, production, economic and other benefits; (ii) the project to upgrade the Bloom Lake iron ore concentrate to a higher grade with lower contaminants and to convert approximately half of Bloom Lake's increased nameplate capacity of 15 Mtpa to commercially produce a DR quality pellet feed iron ore, expected project timeline, capital expenditure, budget and financing; (iii) the shift in steel industry production methods towards reducing emissions and green steel production methods and the Company's participation therein, contribution thereto and positioning in connection therewith; (iv) production and recovery rate targets and the Company's performance; and (v) the Company's growth and opportunities generally.

Deemed Forward-Looking Statements

Statements relating to "reserves" or "resources" are deemed to be forward-looking statements as they involve the implied assessment, based on certain estimates and assumptions, that the reserves and resources described exist in the quantities predicted or estimated and that the reserves can be profitably mined in the future. Actual reserves and resources may be greater or less than the estimates provided herein.

Risks

Although Champion believes the expectations expressed in such forward-looking statements are based on reasonable assumptions, such forward-looking statements involve known and unknown risks, uncertainties and other factors, most of which are beyond the control of the Company, which may cause the Company's actual results, performance or achievements to differ materially from those expressed or implied by such forward-looking statements. Factors that could cause the actual results to differ materially from those expressed in forward-looking statements include, without limitation: (i) the results of feasibility studies; (ii) changes in the assumptions used to prepare feasibility studies; (iii) project delays; (iv) timing and uncertainty of industry shift to green steel and EAF; (v) continued availability of capital and financing and general economic, market or business conditions; (vi) general economic, competitive, political and social uncertainties; (vii) future prices of iron ore; (viii) future transportation costs; (ix) failure of plant, equipment or processes to operate as anticipated; (x) delays in obtaining governmental approvals, necessary permitting or in the completion of development or construction activities; and (xi)

the effects of catastrophes and public health crises, including the impact of COVID-19 on the global economy, the iron ore market and Champion's operations, as well as those factors discussed in the section entitled "Risk Factors" of the Company's 2023 Annual Report, Annual Information Form and MD&A for the financial year ended March 31, 2023, which are available on SEDAR+ at www.sedarplus.ca, the ASX at www.asx.com.au and the Company's website at www.championiron.com. There can be no assurance that such information will prove to be accurate as actual results and future events could differ materially from those anticipated in such forward-looking information. Accordingly, readers should not place undue reliance on forward-looking information.

Additional Updates

All of Champion's forward-looking information contained in this press release is given as of the date hereof or such other date or dates specified in forward-looking statements and is based upon the opinions and estimates of Champion's Management and information available to Management as at the date hereof. Champion disclaims any intention or obligation to update or revise any of the forward-looking information, whether as a result of new information, future events or otherwise, except as required by law. If the Company does update one or more forward-looking statements, no inference should be drawn that it will make additional updates with respect to those or other forward-looking statements. Champion cautions that the foregoing list of risks and uncertainties is not exhaustive. Readers should carefully consider the above factors as well as the uncertainties they represent and the risks they entail.

Abbreviations

Unless otherwise specified, all dollar figures stated herein are expressed in millions of United States dollars, except for: (i) tabular amounts which are in thousands of United States dollars; and (ii) per share or per tonne amounts. The following abbreviations and definitions are used throughout this press release: US\$ (United States dollar), Fe (iron ore), dmt (dry metric tonnes), Mtpa (million tonnes per annum), M (million), km (kilometers), LoM (life-of-mine), Management (Champion's management team), Bloom Lake or Bloom Lake Mine (Bloom Lake Mining Complex) and Phase II (Phase II expansion project). The utilization of "Champion" or the "Company" refers to Champion Iron Limited and/or one, or more, or all of its subsidiaries, as applicable.

Qualified Person and Data Verification

Mr. Vincent Blanchet, P. Eng., Engineer at QIO, the operator of Bloom Lake, is a QP as defined by NI 43-101 and has reviewed and approved, or has prepared, as applicable, the disclosure of the scientific and technical information contained in this press release. Mr. Blanchet's review and approval does not include statements as to the Company's knowledge or awareness of new information or data or any material changes to the material assumptions and technical parameters underpinning the feasibility study contained in the 2019 Technical Report. Mr. Blanchet is a member of the Ordre des ingénieurs du Québec.

The following QPs have participated in the preparation of the 2023 Technical Report:

Qualified Person / Firm	General Overview of Responsibilities
Champion Iron Limited:	
Vincent Blanchet	<ul style="list-style-type: none"> ▪ History, geological settings and mineralization, deposit type, adjacent properties and other relevant information. ▪ Mineral titles, exploration and drilling. ▪ Sample preparation, analyses, and security.
Olivier Hamel	<ul style="list-style-type: none"> ▪ Mineral reserve estimate. ▪ Mining methods, capital and operating costs.
BBA Inc.:	

André Allaire	<ul style="list-style-type: none"> ▪ Technical report integration. ▪ Market studies. ▪ Property and infrastructure description.
Benoît Ouellet	<ul style="list-style-type: none"> ▪ Environmental studies, permitting and social or community impact.
Soutex:	
Jérôme Martin	<ul style="list-style-type: none"> ▪ Mineral processing and metallurgical testing. ▪ Recovery methods.
SRK:	
Erik Ronald	<ul style="list-style-type: none"> ▪ Mineral resource estimate. ▪ Data verification.

- It is the QP's opinion that data verification procedures have yielded confidence in resource data and site procedures related to drilling, logging, and sampling. The QP undertook an audit on the reconciliation practices that yielded confidence in ore control procedures with minor areas for operational improvement.
- The QP is of the opinion that the database is appropriate for the purposes of mineral resource estimation and that the sample density allows for a reliable estimate of the size, tonnage and grade of the mineralization in accordance with the level of confidence established by the mineral resource classification categories as per CIM Definition Standards.
- It is the QP's opinion that the classification at Bloom Lake is a reasonable reflection of the overall mineral resource risks associated with geologic understanding and confidence, data support, and grade continuity associated with the varying levels of resource categories assigned.

National Instrument 43-101 compliance

Unless otherwise indicated, Champion has prepared the technical information in this news release ("Technical Information") based on information contained in the technical reports, news releases and MD&A's (collectively the "Disclosure Documents") that are or will be available under Champion's company profile on SEDAR+ at www.sedarplus.ca. Each Disclosure Document was prepared by, or under the supervision of, a qualified person as defined in National Instrument 43-101 Standards of Disclosure for Mineral Projects of the Canadian Securities Administrators ("NI 43-101"). Readers are encouraged to review the full text of the Disclosure Documents which qualifies the Technical Information. Readers are advised that mineral resources that are not mineral reserves do not have demonstrated economic viability. The Disclosure Documents are each intended to be read as a whole, and sections should not be read or relied upon out of context. The Technical Information is subject to the assumptions and qualifications contained in the Disclosure Documents.

CIM and JORC Comparison

Mineral resources and mineral reserves contained in this press release are classified using the CIM Definition Standards. The confidence categories assigned under the CIM Definition Standards were reconciled to the confidence categories in the JORC Code (2012 Edition) (the "JORC Code"). As the confidence category definitions are the same, no modifications to the confidence categories were required.

There are differences in terminology in the JORC Code and the CIM Definition Standards. Terminology differences are as follows: the term "Ore Reserves" in the JORC Code is equivalent to "Mineral Reserves" using the CIM Definition Standards, and the term "Proved Ore Reserves" in the JORC Code is equivalent to "Proven Mineral Reserves" using the CIM Definition Standards. There are no other material differences between the JORC Code and the CIM Definition Standards.

Measured and indicated mineral resources have been reported separately from inferred mineral resources.

Mineral resources that are not mineral reserves do not have demonstrated economic viability. Due to lower certainty, the inclusion of mineral resources should not be regarded as a representation by Champion that such amounts can necessarily be totally economically

exploited, and investors are cautioned not to place undue reliance upon such figures. Therefore, no assurances can be given that the estimates of mineral resources presented in this statement will be recovered at the tonnages and grades presented, or at all.

For further information, please contact:

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For additional information on Champion Iron Limited, please visit our website at: www.championiron.com.

This press release has been authorized for release to the market by the CEO of Champion Iron Limited, David Cataford.



Quebec Iron Ore

Bloom Lake Iron Ore Mine

Fermont, Quebec

Technical Report

JORC Code – Bloom Lake Mine

BBA Document No.-Rev.: 3813138-000000-40-ERA-0001 / R00

May 19, 2023

FINAL



Prepared and verified by:
Benoit Ouellet, P. Eng.
OIQ Membership No. 5007925



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TABLE OF CONTENTS

1. Introduction	1
1.1. Background	1
1.2. Project Description	1
2. Mineral Resources and Ore Reserves Estimation	1
2.1. Mineral Resource Statement	1
2.2. Ore Reserve Statement	2
2.3. Competent Person Statement	3
3. Concluding Remarks	4

LIST OF TABLES

Table 1: Bloom Lake Mineral Resource	2
Table 2: Bloom Lake Mine Ore Reserves	3

APPENDICES

Appendix A:	JORC Code (2012) – Table 1
	Section 1: Sampling Techniques and Data
	Section 2: Reporting of Exploration Result
	Section 3: Estimation and Reporting of Mineral Resources
	Section 4: Estimation and Reporting of Ore Reserves



1. Introduction

1.1. Background

BBA Inc. (BBA), a Canadian-based consulting firm, has been requested by Champion Iron Limited (Québec Iron Ore – QIO) to carry out the integration of the Mineral Resources & Mineral Reserves Estimate on its Bloom Lake mine, located in Fermont Québec.

The Ore Reserve Estimate has been derived and reported by QIO according to the guidelines and terminology proposed in the JORC Code (2012 version). It is important to note that the Ore Reserves and Mineral Resources presented in this report are also compliant with the Canadian Institute of Mining, Metallurgy and Petroleum (CIM) reporting guidelines as used in National Instrument 43-101 standards (NI 43-101).

1.2. Project Description

Bloom Lake is an operating mine having just completed an expansion doubling its production capacity.

The operation consists of a conventional surface mining method using an open-pit mining approach with electric hydraulic shovels, wheel loaders and mine trucks. The study consists of resizing the Resources and the open pit based on parameters outlined in this section and producing an 18-year life of mine (LOM) plan to feed a plant at a nominal rate of 41.9 Mtpy to produce +/-15 Mtpa of 66.2% Fe iron concentrate. Year 1 of the current study is from April 1, 2023 to March 31, 2024.

2. Mineral Resources and Ore Reserves Estimation

2.1. Mineral Resource Statement

The Measured, Indicated and Inferred Mineral Resources for the Bloom Lake project presented herein are estimated at a cut-off grade of 15% Fe, inside an optimized Whittle open pit shell. The Mineral Resources pit shell is based on a long-term iron price of USD110.24/dmt at CRF 65% Fe content. The Iron price was increased by a premium of USD2.04/dmt for a 66.2% Fe concentrate. The FOB at Sept-Iles Port was set to USD87.80/dmt considering an ocean freight costs of USD24.48/dmt. With an exchange rate of 1.27 CAD/US, the price of 66.2% Fe Concentrate used for Mineral Resources is CAD111.6/dmt.



The Measured and Indicated Mineral Resources for the Bloom Lake project is estimated at 1,252.2 Mt with an average grade of 28.7% Fe and Inferred Mineral Resource at 246.3 Mt with an average grade of 26.6% Fe.

Table 1: Bloom Lake Mineral Resource

Classification	Tonnage Mt	Fe %	CaO %	MgO %	Al ₂ O ₃ %	Sat %
Measured	186.7	30.4	1.3	1.3	0.3	5.5
Indicated	1,065.5	28.4	1.3	1.2	0.5	6.1
Total M&I	1,252.2	28.7	1.3	1.2	0.5	6.0
Inferred	246.3	26.6	1.4	1.2	0.5	6.4

2.2. Ore Reserve Statement

The Ore Reserves Estimate prepared by QIO is based on the latest Mineral Resource Estimate completed by QIO with an effective date of April 1, 2023. BBA has independently reviewed the quantity and quality of the underlying data and the methodologies used to derive and classify the Mineral Reserve Estimate.

Based on the Mineral Resources contained within the pit designs, QIO prepared the LOM plan that will feed both Phase 1 and Phase 2 processing facilities. The economic input parameters used in the LOM are based on current operational experience gained by QIO over the last years and on the previous owner operational database.

The project financial evaluation was produced by QIO and includes costs for mining, ore processing, general and administration costs, as well as all related shipping and handling costs.

The Proven and Probable Reserves for the Bloom Lake project presented herein are estimated at a cut-off grade of 15% Fe, inside an optimized Whittle open pit shell. The Ore Reserves pit shell is based on a long-term iron price of USD99.00/dmt at CRF 65% Fe content. The iron price was increased by a premium of USD1.83/dmt for a 66.2% Fe concentrate. The FOB at Sept-Iles Port was set to USD76.34/dmt considering an ocean freight costs at USD24.48/dmt. With an exchange rate of 1.27 CAD/US, the price of 66.2% Fe Concentrate used for Ore Reserves is CAD97.09/dmt.

The financial model adequately supports the Ore Reserves Estimate, demonstrating robust project economics.



Table 2 presents the Ore Reserves for the Bloom Lake Phase 2 Project. Ore Reserves are reported on a dry tonne basis (i.e., excluding the moisture content) and are inclusive of mining dilution and ore loss. Ore tonnes are reported at a cut-off grade of 15% Fe. The effective date of the Ore Reserves is April 1, 2023, and the reference point is the primary crusher feed.

Table 2: Bloom Lake Mine Ore Reserves

Classification	Diluted Tonnage (Mt)	Diluted Fe (%)	CaO (%)	MgO (%)	Al ₂ O ₃ (%)	SAT (%)
Proven	183.7	30.0	1.3	1.3	0.3	5.6
Probable	532.5	28.1	2.1	2.0	0.5	9.2
Total Proven & Probable	716.2	28.6	1.9	1.8	0.4	8.3
Waste	685.7	-	-	-	-	-

2.3. Competent Person Statement

The statement relating to Mineral Resources in this report is based on information compiled by Erik C. Ronald, P.Geo., who is a Professional Geologist registered with the Ordre des géologues du Québec (OGQ) (Special Authorization), and with the Professional Geoscientists Ontario (PGO). Mr. Ronald is a Principal Geologist in the mining department at SRK Consulting (U.S.), Inc., a consulting firm based in Denver, CO, USA.

Mr. Ronald has sufficient experience relevant to the style of mineralization and type of deposit under consideration and to the activity he is undertaking to qualify as a Competent Person as defined in the JORC Code (2012). The Competent Person, Mr. Erik C. Ronald, has reviewed the Mineral Resources Estimate and has given his consent to the inclusion in the report of the matters based on his information in the form and context within which it appears.

The Competent Person relies on other professionals for all manner of things related to the Modifying Factors. These professionals also act as Qualified Persons under NI 43-101 compliant report that will be published on SEDAR with an effective date of April 1, 2023.

The statement relating to Ore Reserves in this report is based on information compiled by Olivier Hamel who is a Professional Engineer registered with the Ordre des ingénieurs du Québec (OIQ). Mr. Hamel is a mining engineer in the mining and geology department at QIO Inc., an Iron Ore concentrate producer based in Montréal, Canada.



Mr. Hamel has sufficient experience relevant to the style of mineralization and type of deposit under consideration and to the activity he is undertaking to qualify as a Competent Person as defined in the JORC Code (2012). The Competent Person, Mr. Olivier Hamel, has reviewed the Ore Reserve Estimate and has given his consent to the inclusion in the report of the matters based on his information in the form and context within which it appears.

The Competent Person relies on other professionals for all manner of things related to the Modifying Factors. These professionals also act as Qualified Persons under NI 43-101 compliant report that will be published on SEDAR with an effective date of April 1, 2023.

3. Concluding Remarks

BBA concludes that the Mineral Resource and Ore Reserve Statement presented is reported in accordance with the terms and definitions as included in the JORC Code (2012). Included in Appendix A of this report are the JORC checklist tables, which include additional details and commentary on sections 1 to 4 of the JORC Table 1.



Appendix A: JORC Code (2012) – Table 1



Appendix A: JORC Code (2012) – Table 1

Section 1: Sampling Techniques and Data

Criteria	JORC Code explanation	Commentary
Sampling techniques	<ul style="list-style-type: none">■ Nature and quality of sampling (e.g. cut channels, random chips, or specific specialised industry standard measurement tools appropriate to the minerals under investigation, such as down hole gamma sondes, or handheld XRF instruments, etc.). These examples should not be taken as limiting the broad meaning of sampling.■ Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used.■ Aspects of the determination of mineralisation that are Material to the Public Report.■ In cases where 'industry standard' work has been done this would be relatively simple (e.g. 'reverse circulation drilling was used to obtain 1 m samples from which 3 kg was pulverised to produce a 30 g charge for fire assay'). In other cases, more explanation may be required, such as where there is coarse gold that has inherent sampling problems. Unusual commodities or mineralisation types (e.g. submarine nodules) may warrant disclosure of detailed information.	<p>Sampling was completed using diamond drilling core. Several drilling campaigns were conducted between 1957 and 2022 by various companies. Through the years, core size changed from XRT to AXT, AQ, BQ and finally NQ.</p> <p>The drill hole locations were designed and oriented to allow for spatial spread of samples across different rock units and iron formations. Samples are representative of geological units.</p> <p>The sampling procedure is based on two factors that are taken into consideration, the grade cut-off for samples and the length of the samples. Samples are taken before, through and after the potentially mineralized zone.</p> <p>Samples are taken directly before and after the potentially economic ore and its rock type is noted (quartzite or amphibolites). Generally, a sample respects the lithological contacts (upper or lower) and does not overlap two distinct lithologies.</p> <p>In case of heavy liquids tests, head chemistry results are required before selecting samples for gravity separation.</p> <p>The standard length of a sample is 6 m core. Obviously, the sample is half the core previously divided. However, the sample must be between 3 m to 6 m to a maximum of 7 m in length.</p> <p>For the intervals of poor core recovery, the samples are at least 1.6 m if some of the core is continuous on such length. If uninterrupted intervals are too short (less than 1.6 m), the core not recovered is included and a single sample is made including the missing intervals, which is the equivalent of at least 1.6 m core present.</p> <p>The core intervals are carefully measured and compiled on a list that will then be used to identify each box using aluminum tape affixed to its end. The following is affixed to the front of each box: the number of the hole, the number of the box and "FROM / TO". When all the work of description and sampling is completed, the boxes are placed on stands to keep the remaining core intact as a reference or if required for further test work.</p>



Criteria	JORC Code explanation	Commentary
		<p>The sample bags are stored in a core shack until removed to go, via pick-up trucks, to TST Overland Express in Wabush which then, transport them to SGS Lakefield Research Limited (Lakefield), in Lakefield, Ontario (2014 and before) and Corem in Québec City, Québec (2017-2020). Samples are crushed and pulverized to -150 mesh. Samples are crushed and pulverized to 100% passing 150 mesh or 106 µm. Up to 0.5 g of each sample is then fused with Lithium Metaborate/Lithium Tetraborate to form a homogenous mass, suitable for accurate analyses. Determination of Major Oxides (SiO₂, Al₂O₃, Fe₂O₃, MgO, CaO, Na₂O, K₂O, P₂O₅, MnO, TiO₂, Cr₂O₃, V₂O₅) is performed by X Ray fluorescence. The detection limits are generally set around 0.01%. Loss on ignition (LOI) is measured before fusion by calcination at 1,050°C.</p> <p>This method has been fully validated for the range of samples typically analyzed. Method validation includes the use of certified reference materials, replicates and blanks to calculate accuracy, precision, linearity, range, limit of detection, limit of quantification, specificity and measurement uncertainty.</p> <p>The LOI at 1,000°C is determined separately gravimetrically. The LOI is included in the matrix-correction calculations, which are performed by the XRF instrument software.</p> <p>Additional analysis included determination of magnetic iron with a Satmagan magnetic balance. The instrument is an equilibrated, level and clean Magnet Potentiometer scale (Satmagan). The magnetic force is read from the potentiometer scale. The magnetic Fe is calculated using the formula:</p> $\% \text{ magnetic Fe} = \text{Reading from scale} \times \text{calibration factors} \times 0.724.$ <p>Other additional analysis included determination of sulphur by combustion-infrared detection on LECO instrumentation.</p> <p>Specific gravity was determined using an air comparison pycnometer. I</p>



Criteria	JORC Code explanation	Commentary
Drilling techniques	<ul style="list-style-type: none">■ Drill type (e.g. core, reverse circulation, open-hole hammer, rotary air blast, auger, Bangka, sonic, etc.) and details (e.g. core diameter, triple or standard tube, depth of diamond tails, face-sampling bit or other type, whether core is oriented and if so, by what method, etc.).	<p>Historical drilling includes drilling campaigns conducted by J&L and CCIC in 1956 and 1957, QUECO in 1971 and 1972, and WGM in 1998. Holes drilled by J&L and CCIC are XRT and AXT size core holes, producing 19 mm diameter core and 32.5 mm diameter core, respectively. In 1971 and 1998, holes were drilled with BQ drill rods, producing 36.4 mm core.</p> <p>The Bloom Lake West area was drilled during the years 1957 to 2007 following two dominant axes. The first one, EW oriented, is located approximately at latitude of 5,855,400 mN and the second, on a NS axis at 613,250 mE and 613,550 mE, where cross-sections were established.</p> <p>Between 2007 and 2008, CLM drilled BQ and NQ size core holes. Consolidated Thompson conducted drilling campaigns between 2007 and 2010 recovering BQ size drill in 2007, and subsequently NQ size tools were used.</p> <p>The drilling campaigns continued in 2009, 2010, 2012, and 2013. Most of the holes were drilled in the West Bloom area, as well as in the Bloom Pignac area. Much less drilling was in the Confusion Lake, Carrot Lake and central Bloom areas. All this new information was added to the previous one and a new block model was created in 2014.</p> <p>Also for 2014, an exploration drilling campaign was planned, but only four (4) geotechnical holes have been drilled.</p> <p>The drilling contractors have been Les Forage CCL and Les Forages Lantech Drilling Services Inc. They produced both BQ and NQ size core.</p> <p>The holes were collared on-site with a portable Garmin GPS. This position could vary from a few metres to accommodate drilling, depending on the ground conditions but still, was maintaining the relative position and spacing relative to the other holes.</p> <p>Drilling azimuth reference was provided through points of coordinates. The use of a compass was not recommended due to the high level of magnetism developed by some horizons of the underlying iron formations.</p>



Criteria	JORC Code explanation	Commentary
		<p>Deviation and inclination tests were carried out in the holes. Tests with hydrofluoric acid (HF) were done for the drilling of 2006 - 2008 while, starting 2009, a Flexit instrument was used to measure both orientation and inclination of all the drill holes. This instrument provided useful magnetic susceptibility values. Readings were taken every 15 m or 30 m. All the data obtained with the Flexit instrument were analyzed and all the inappropriate data were eliminated if deviation was too large and/or if the magnetic susceptibility was too high.</p> <p>Deviation readings were not taken for drill holes that were lost or abandoned.</p> <p>All the drill hole collars were surveyed. The firm of land surveyors, Roussy Michaud from Sept-Îles, put in place stations on the pit site. These points were used as references for positioning the West Zone. Surveyors of Roussy Michaud and Consolidated Thompson used a Trimble R8 instrument to survey the drill hole collars.</p> <p>The inclination and direction of the drill collars were not precisely surveyed. An approximate direction was obtained in aiming at a 3 m rod inserted into the drill hole tubing and then, direction was verified against the Flexit readings.</p> <p>In 2018, following the re-opening, two small campaigns were conducted for which a total of 36 boreholes were drilled to better understand the position of the Pignac pit north hanging wall and for better defining the Patte Pignac sector. They produced NQ core and deviation survey was taken every 50 m. Holes were located using mine surveying before and after hole completion.</p> <p>In 2019 and 2020, respectively 35 holes and 50 holes were drilled for a total of 82 boreholes to reduce the risk and have a better understanding of the geometry of the deposit. Also 14 Geotech boreholes were drilled between 2019 and 2020 to have a better understanding of the structure of the deposit. They produced NQ core and deviation survey was taken every 50 m.</p> <p>In 2021-2022, 24 diamond drill holes were drilled out mainly for conversion purpose. A first campaign targeted mineralization at depth of Bloom West, below actual resource Pit shell to assess continuity of mineralized iron formation. The second campaign targeted the eastern part of Chief's Peak mainly to confirm mineralization.</p>



Criteria	JORC Code explanation	Commentary
Drill sample recovery	<ul style="list-style-type: none">■ Method of recording and assessing core and chip sample recoveries and results assessed.■ Measures taken to maximise sample recovery and ensure representative nature of the samples.■ Whether a relationship exists between sample recovery and grade and whether sample bias may have occurred due to preferential loss/gain of fine/coarse material.	<p>Core recovery is recorded in the database.</p> <p>Core recovery was good, generally more than 90%.</p> <p>There are no significant core loss or sample recovery issue.</p> <p>There is no apparent relationship between core-loss and grade.</p>
Logging	<ul style="list-style-type: none">■ Whether core and chip samples have been geologically and geotechnically logged to a level of detail to support appropriate Mineral Resource estimation, mining studies and metallurgical studies.■ Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc.) photography.■ The total length and percentage of the relevant intersections logged.	<p>The core was logged using standard verified methods. Rock types were identified, and intervals were measured according to the marks done by the drillers. Logging took into account the general colour of the rock, the relative percentage of constituents, the grain size distribution, texture and the variation of these elements when significant.</p> <p>Logging was both qualitative and quantitative.</p> <p>The mineralized units to be sampled were marked with a grease pencil at 1 m to 6 m intervals, depending on the mineral content.</p> <p>All the data is now stored in the Fusion Datamine software which use an SQL database.</p> <p>There is no apparent relationship between core-loss and grade.</p> <p>All the boxes were labelled, photographed in lots of three and most of them were photographed in detail, two (2) pictures being taken for each box. The core boxes were systematically measured to validate the marks of the drillers. Measuring was also done to calculate the RQD and the core recovery.</p>



Criteria	JORC Code explanation	Commentary
Sub-sampling techniques and sample preparation	<ul style="list-style-type: none"> ■ If core, whether cut or sawn and whether quarter, half or all core taken. ■ If non-core, whether riffled, tube sampled, rotary split, etc. and whether sampled wet or dry. ■ For all sample types, the nature, quality and appropriateness of the sample preparation technique. ■ Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples. ■ Measures taken to ensure that the sampling is representative of the in situ material collected, including for instance results for field duplicate/second-half sampling. ■ Whether sample sizes are appropriate to the grain size of the material being sampled. 	<p>Core samples were split using a hydraulic core splitter. The second half of the split core sample was returned to the core tray.</p> <p>Quality control procedures included a number of 170 duplicates coming from the core of the 2010, 2012 and 2013 drilling programs were analyzed for major oxides and sulphur.</p> <p>Until 2009 quartz samples have been used as Blanks. These blank samples were obtained from the Daviault Lake silica quarry of Blackburn Quartz. This property, entirely owned by Quebec/ Labrador Exploration, is located 7 km north of Fermont. The samples of quartz were visually selected prior to their use as blanks, to avoid the presence of any impurity. The samples were crushed to 2 – 3 cm.</p> <p>Starting with the 2012 drilling campaign, the silica Blanks have been replaced by samples coming from the waste lithology, mainly amphibolites. Even if they were considered as Blanks, these 69 samples have a variable amount of oxides that is related to the mineralogical composition and alteration of the selected samples. Because of this reason, these Blanks cannot offer any indication if the sample preparation and analytical results have been affected by contamination.</p> <p>Standard samples made from mineralized material from the Bloom Lake deposit were used in the 2013 drilling campaign. Insufficient description of the material and procedures surrounding the Standard analyses lead to the conclusion that the Standards are not appropriate for the QA/QC.</p> <p>At SGS Lakefield, the samples were dried at ~70 +/-10°C for a suitable amount of time, if received wet. The next step involved crushing to reduce each sample size to 2 mm (9 mesh). The sample was then split with a riffle splitter to divide the sample into two representative 0-2 mm portions. One portion was for analysis and the other for reject.</p> <p>Between 2018 and 2020 blank come from silica sand and duplicates were send to SGS Lake Field. 41 blanks were inserted and 88 duplicates. No material discrepancies were observed.</p>



Criteria	JORC Code explanation	Commentary
Quality of assay data and laboratory tests	<ul style="list-style-type: none"> The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total. For geophysical tools, spectrometers, handheld XRF instruments, etc., the parameters used in determining the analysis including instrument make and model, reading times, calibrations factors applied and their derivation, etc. Nature of quality control procedures adopted (e.g. standards, blanks, duplicates, external laboratory checks) and whether acceptable levels of accuracy (i.e. lack of bias) and precision have been established. 	<p>A whole rock analysis was done on each sample to measure the following parameters (in %): SiO₂, Al₂O₃, Fe₂O₃, MgO, CaO, Na₂O, K₂O, TiO₂, P₂O₅, MnO, Cr₂O₃, V₂O₅, loss on ignition ("LOI") and S (in ppm).</p> <p>Samples are crushed and pulverized to -150 mesh. This method is used to report, in percentage, the whole rock suite (SiO₂, Al₂O₃, Fe₂O₃, MgO, CaO, Na₂O, K₂O, P₂O₅, MnO, TiO₂, Cr₂O₃, V₃O₅). Sample preparation entails the formation of a homogenous glass disk by the fusion of 0.2 g to 0.5 g of rock pulp with 7 g of lithium tetraborate/lithium metaborate (50/50). The disc specimen was then analyzed by WDXRF spectrometry. The detection limit for all analyzed oxides is 0.01%.</p> <p>This method has been fully validated for the range of samples typically analyzed. Method validation includes the use of certified reference materials, replicates and blanks to calculate accuracy, precision, linearity, range, limit of detection, limit of quantification, specificity and measurement uncertainty.</p> <p>The LOI at 1,000°C is determined separately gravimetrically. The LOI is included in the matrix-correction calculations, which are performed by the XRF instrument software.</p> <p>Additional analysis included determination of magnetic iron with a Satmagan magnetic balance. The instrument is an equilibrated, level and clean Magnet Potentiometer scale (Satmagan). The magnetic force is read from the potentiometer scale. The magnetic Fe is calculated using the formula:</p> $\% \text{ magnetic Fe} = \text{Reading from scale} \times \text{calibration factors} \times 0.724.$ <p>Other additional analysis included determination of sulphur by combustion-infrared detection on LECO instrumentation.</p> <p>Specific gravity was determined using an air comparison pycnometer. It should be noted that this method does not take into account existing porosity in a rock and some of the OIF does contain vugs due to calcite removal. Although the degree of porosity has not been quantified, it is estimated on the basis of visual examination of drill core to be generally less than 2%. It should be noted that specific gravity was not measured for all drill holes.</p> <p>Total iron was calculated from Fe₂O₃ by dividing total iron expressed as Fe₂O₃ by a factor of 1.4295.</p>



Criteria	JORC Code explanation	Commentary
		<p>QIO has an internal set of quality control procedures and verifications on the drilling database used to support geological and resource modelling. QIO's internal controls include the continuous review of diamond drill core logging, sampling, measurements, and analyses.</p> <p>Core logging procedures include capturing drill hole survey (collar and downhole), lithology, geotechnical information, sampling intervals lengths, and specific gravity measurements using</p> <p>Starting in 2022, QIO engaged SGS Laboratories to provided three commercially prepared standard reference materials across a range of iron grades to implement as part of the analytical quality control program at Bloom Lake.</p>
Verification of sampling and assaying	<ul style="list-style-type: none">■ The verification of significant intersections by either independent or alternative company personnel.■ The use of twinned holes.■ Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.■ Discuss any adjustment to assay data.	<p>In 2016, G Mining Service has taken core samples to compare with assay grades available in the drilling database of the Bloom Lake Project. The sampling was carried out independently by the competent person responsible for the resource estimate. A total of 12 samples were selected and analyzed for iron content. The check samples generally returned higher iron grades than those of the original assays in the database.</p> <p>Twelve (12) twin holes have been drilled during 2006 – 2007.</p> <p>The protocols of data entry procedures, data verification and data storage have been checked.</p> <p>In 2020, 26 check assays were send to second laboratory (SGS Lake Field) to confirm the first laboratory (Corem) and no material discrepancies were observed.</p> <p>SRK assessed the analytical quality control (QC) data produced by QIO on the property since 2008 on resource drilling. All data were provided to SRK in Microsoft Excel spreadsheets. SRK aggregated the assay results of the external analytical control samples for further analysis. QC samples including blanks and standard reference materials (SRM) were summarized on time series plots to review performance. Field duplicates were analyzed using bias charts, quantile-quantile (Q-Q), and relative precision plots.</p>



Criteria	JORC Code explanation	Commentary
Location of data points	<ul style="list-style-type: none"> ■ Accuracy and quality of surveys used to locate drill holes (collar and down-hole surveys), trenches, mine workings and other locations used in Mineral Resource estimation. ■ Specification of the grid system used. ■ Quality and adequacy of topographic control. 	<p>All data related to drilling done on the property are on the UTM NAD 83 geographical coordinates. The territory is covered by the zone 19. All the previous coordinates were converted in that system.</p> <p>All the drill hole collars were surveyed using a Trimble R8 instrument by the surveyors of Roussy Michaud and Consolidated Thompson.</p> <p>For hole deviation, tests with hydrofluoric acid (HF) were done for the drilling of 2006 - 2008 while, starting 2009, a Flexit or a Gyro instrument was used to measure both orientation and inclination of all the drill holes.</p>
Data spacing and distribution	<ul style="list-style-type: none"> ■ Data spacing for reporting of Exploration Results. ■ Whether the data spacing and distribution is sufficient to establish the degree of geological and grade continuity appropriate for the Mineral Resource and Ore Reserve estimation procedure(s) and classifications applied. ■ Whether sample compositing has been applied. 	<p>The drill holes were planned to properly cover the mineralization domains with a 3D spacing of 70 m to 150 m.</p>
Orientation of data in relation to geological structure	<ul style="list-style-type: none"> ■ Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type. ■ If the relationship between the drilling orientation and the orientation of key mineralised structures is considered to have introduced a sampling bias, this should be assessed and reported if material. 	<p>The Bloom Lake West area was drilled following two dominant axes following the mineralized structures. The first one, EW oriented, is located approximately at latitude of 5,855,400 mN and the second, on a NS axis at 613,250 mE and 613,550 mE.</p>
Sample security	<ul style="list-style-type: none"> ■ The measures taken to ensure sample security. 	<p>The sample bags are stored in a core shack until removed to go, via pic-up trucks, to TST Overland Express in Wabush. Here, the bags were put on pallets that were sealed with plastic wrap-ups. When the sample bags arrive at the SGS Lakefield Research Limited, Lakefield, Ontario, or Corem in Quebec, the security policy of the laboratory applies.</p>



Criteria	JORC Code explanation	Commentary
Audits or reviews	<ul style="list-style-type: none">The results of any audits or reviews of sampling techniques and data.	<p>In 2009, GENIVAR reported that verifications were done at the property itself in order to find the collars of holes done during prior drilling programs. Some of these drill hole collars could not be found. However, the deforest areas observed were clear evidence of collar locations. Further verifications were done on the drill core.</p> <p>Five visits were done on-site in Fermont by GENIVAR between October 2007 and February 2009. The objectives of these visits were to carry out visual inspections of the overall site, of the layout and organization of the installations as well as the examination of the drill cores.</p> <p>The Project was visited by SRK on September 7, 2011. The site visit consisted in the review of regional and property geology, review of drill core and comparison to drill logs, visit to the open pit mine, and visit to the process plant and tailings storage facility and discussion with key personnel on operating and capital costs.</p> <p>The project was visited by SRK on March 2022 core shack visit and site visit for reconciliation and sampling practices audit.</p>



Section 2: Reporting of Exploration Result

Criteria	JORC Code explanation	Commentary
Mineral tenement and land tenure status	<ul style="list-style-type: none">■ Type, reference name/number, location and ownership including agreements or material issues with third parties such as joint ventures, partnerships, overriding royalties, native title interests, historical sites, wilderness or national park and environmental settings.■ The security of the tenure held at the time of reporting along with any known impediments to obtaining a licence to operate in the area.	<p>The Bloom Lake property is owned by Quebec Iron Ore Inc. (QIO), a wholly owned subsidiary of Champion Iron Limited.</p> <p>The Bloom Lake property is located in the northeastern part of the province of Quebec, adjacent to the Labrador/Newfoundland border, in Normanville Township, Kaniapiskau County. The Bloom Lake property is located 13 km west of the town of Fermont and 30 km southwest of the municipalities of Wabush and Labrador City.</p> <p>In 2016, QIO was holding 100% of 114 active claims outside of the Mining Lease (BM 877) which has a total of 6857.7 ha. The mining lease boundaries are in compliance with the restriction zones and the claims within the mining lease have been suspended. QIO requested the renewal of 69 claims in October 2016. T</p> <p>There are no royalties, agreements or encumbrances on the Mining site.</p> <p>The mine has already been authorized for operation under the federal environmental authority including Fisheries and Oceans Canada, Transport Canada, Natural Resources Canada and Environment Canada. There is only one pending process with the federal government associated with the 2008 authorization for destruction of fish habitats. The authorization from DFO should be issued in 2017. This process does not prevent QIO from operating the mine.</p> <p>A total of 38 certificates of authorization have been issued by the provincial government to the Bloom Lake iron mine in the past, and infrastructure such as the pit, waste rock piles, tailings management facilities, water management structure as well as the treatment plant have all been authorized. A few of these authorizations will require modifications to consider the new mine plan.</p> <p>There are no known significant issues that are believed to materially impact the mine's ability to operate.</p>
Exploration done by other parties	<ul style="list-style-type: none">■ Acknowledgment and appraisal of exploration by other parties.	<p>Exploration was done, starting 1957, by several companies including Cliffs Iron Company (CCIC), Boulder Lake Mines Incorporated, a subsidiary of CCIC, Jalore Mining Company Limited, a subsidiary of J&L, and QCM.</p>



Criteria	JORC Code explanation	Commentary
Geology	<ul style="list-style-type: none">■ Deposit type, geological setting and style of mineralisation.	<p>The Bloom Lake Iron Deposit lies within the Fermont Iron Ore District (FIOD), a world-renowned iron-mining camp at the southern end of the Labrador Trough within the geological Grenville Province.</p> <p>The Bloom Lake deposit comprises gently plunging synforms on a main east-west axis separated by a gently north to northwest plunging antiform. One of these synforms is centred on Triangle Lake, while the centre for the other is located just north of Bloom Lake. The Bloom Lake property is centred primarily on the eastern synform but covers a portion of the northern limb of the western synform.</p> <p>The iron-formation and quartzite are conformable within a metasedimentary series of biotite-muscovite-quartz-feldspar-hornblende-garnet-epidote schists and gneisses in a broad synclinal structure. This succession, following the first stage of folding and faulting, was intruded by gabbroic sills which were later metamorphosed and transformed into amphibolite gneiss with foliation parallel with that in adjacent metasediments. Two separate iron-formation units are present; these join northwest of Bloom Lake, but are separated by several hundred feet of gneiss and schist in the southern part of the structure.</p> <p>Bloom Lake property mineralization style is a deposit typical of the Superior-Lake type.</p> <p>The mineralization is found in bands of iron formations of different composition including the Hematite Iron Formation, Magnetite Iron Formation and Silicate Iron Formation. The mineralization controls of the deposit are well understood.</p> <p>For iron formation to be mined economically, the iron content must generally be greater than 30%, but also iron oxides must be amenable to concentration (beneficiation) and the concentrates produced must be low in manganese and deleterious elements such as silica, aluminium, phosphorus, sulphur and alkalis.</p>



Criteria	JORC Code explanation	Commentary
Drill hole Information	<ul style="list-style-type: none">■ A summary of all information material to the understanding of the exploration results including a tabulation of the following information for all Material drill holes:<ul style="list-style-type: none">– easting and northing of the drill hole collar– elevation or RL (Reduced Level – elevation above sea level in metres) of the drill hole collar– dip and azimuth of the hole– down hole length and interception depth– hole length■ If the exclusion of this information is justified on the basis that the information is not Material and this exclusion does not detract from the understanding of the report, the Competent Person should clearly explain why this is the case.	<p>221 drill holes were made between 1957 and 2009 for a total of 42,228 metres and 310 drill holes in 2010, 2012 and 2013 for a total of 93,563 m. Four geotechnical holes have been drilled in 2014 (GT-14-07, GT-14-08, GT-14-09, GT-14-10). 36 drill holes were made in 2018 for a total of 4,938 m.</p> <p>Between 2019 and 2020, 82 holes were drilled for 11,406 m, and 14 geotechnical holes for 2,633 m were also drilled on Bloom Lake deposit.</p> <p>The drilling covers an area of about 4.7 km in length and 1 km to 2 km in width.</p> <p>All drill holes and associated assays and lithological data are currently held in the Bloom Lake database.</p>
Data aggregation methods	<ul style="list-style-type: none">■ In reporting Exploration Results, weighting averaging techniques, maximum and/or minimum grade truncations (e.g. cutting of high grades) and cut-off grades are usually Material and should be stated.■ Where aggregate intercepts incorporate short lengths of high-grade results and longer lengths of low-grade results, the procedure used for such aggregation should be stated and some typical examples of such aggregations should be shown in detail.■ The assumptions used for any reporting of metal equivalent values should be clearly stated.	<p>The details related to intercepts and assay management for Mineral Resource estimation are to be found under the Mineral Resource estimation of the Table 1 (Section 3).</p>



Criteria	JORC Code explanation	Commentary
Relationship between mineralisation widths and intercept lengths	<ul style="list-style-type: none">■ These relationships are particularly important in the reporting of Exploration Results.■ If the geometry of the mineralisation with respect to the drill hole angle is known, its nature should be reported.■ If it is not known and only the down hole lengths are reported, there should be a clear statement to this effect (e.g. 'down hole length, true width not known').	The geometry of the mineralization with respect to the drill hole angle is known.
Diagrams	<ul style="list-style-type: none">■ Appropriate maps and sections (with scales) and tabulations of intercepts should be included for any significant discovery being reported. These should include, but not be limited to a plan view of drill hole collar locations and appropriate sectional views.	Maps and geological sections (including the topography, the drill holes with lithology and assays) as well as plan views with drill hole collar locations are included in the Technical report.
Balanced reporting	<ul style="list-style-type: none">■ Where comprehensive reporting of all Exploration Results is not practicable, representative reporting of both low and high grades and/or widths should be practiced to avoid misleading reporting of Exploration Results.	No exploration results in addition to those already published are included in the Mineral Resource estimate.
Other substantive exploration data	<ul style="list-style-type: none">■ Other exploration data, if meaningful and material, should be reported including (but not limited to): geological observations; geophysical survey results; geochemical survey results; bulk samples – size and method of treatment; metallurgical test results; bulk density, groundwater, geotechnical and rock characteristics; potential deleterious or contaminating substances.	All exploration results to date (drilling, geological, geochemical, geotechnical and geophysical data) are included.



Criteria	JORC Code explanation	Commentary
Further work	<ul style="list-style-type: none">■ The nature and scale of planned further work (e.g. tests for lateral extensions or depth extensions or large-scale step-out drilling).■ Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive.	<p>The geological model should be expanded to include the 23 drill holes located east of the Bloom Lake Project and south of Confusion Lake. The additional drilling information may lead to the modelling of new mineralization domains.</p> <p>Silica blanks and standard reference material of industry standards, as well as detailed descriptions of the QA/QC procedures should be introduced in the future drilling programs.</p>



Section 3: Estimation and Reporting of Mineral Resources

Criteria	JORC Code explanation	Commentary
Database integrity	<ul style="list-style-type: none">Measures taken to ensure that data has not been corrupted by, for example, transcription or keying errors, between its initial collection and its use for Mineral Resource estimation purposes.Data validation procedures used.	<p>All data entries are compiled in the Datamine Fusion. The database was retrieved directly from the SQL server where backups files of the project are maintained. The database has internal validation procedures to minimize transcription errors, interval overlaps, duplicate information and missing entries. These validation procedures are executed automatically by the software.</p> <p>QIO proceeded to verifications of the database, including validity checks for out-of-range values, missing intervals and overlapping intervals, visual inspection of drill holes for unusual azimuths, dips and deviations, assay checks for long intervals, extreme high values and reasonable minimum/maximum values, and drill hole checks for duplicate information. Additional verifications were done with the provided digital copies of the original log books and assay certificates. The database was found to be in good condition.</p>
Site visits	<ul style="list-style-type: none">Comment on any site visits undertaken by the Competent Person and the outcome of those visits.If no site visits have been undertaken indicate why this is the case.	<p>The Competent Person for this resource estimate has visited the mine site in 2022 the project site was inspected, including the core shack installations and mine facilities. The Competent Person has found all facilities visited conform to standard industry best practice.</p> <p>The geology and controls on mineralization were examined on drill core.</p>
Geological interpretation	<ul style="list-style-type: none">Confidence in (or conversely, the uncertainty of) the geological interpretation of the mineral deposit.Nature of the data used and of any assumptions made.The effect, if any, of alternative interpretations on Mineral Resource estimation.The use of geology in guiding and controlling Mineral Resource estimation.The factors affecting continuity both of grade and geology.	<p>The confidence in the geological interpretation is based on mostly recent and historical drilling information Geological maps, ground magnetic surveys, pit mapping and ore control data provided additional information to complete the geological model of the Bloom Lake deposit. The geological confidence of the model is supported by multiple data sources and is considered high.</p> <p>The dataset (DDH, assays, geological maps, ground magnetic surveys and geological data from the open pit mine, etc.) is considered adequate to support a detailed geological model.</p>



Criteria	JORC Code explanation	Commentary
		The geological model of the deposit is composed of geological domains, including five (5) mineralized and five (5) majors unmineralized units, and of three geochemical sub-domains of the main mineralized domain. The geological domain boundaries correspond to sharp contacts between the iron formation and host rocks. The Mineral Resource was estimated inside the mineralization domains using interpolation parameters defined for each mineralized domain and sub-domain. The Mineral Resource estimation is strongly based on the geological model of the deposit.
Dimensions	<ul style="list-style-type: none">■ The extent and variability of the Mineral Resource expressed as length (along strike or otherwise), plan width, and depth below surface to the upper and lower limits of the Mineral Resource.	The Bloom Lake deposit is located between 812,000 mE and 817,000 mE and 5,853,500 mN and 5,856,700 mN (UTM NAD83 geographical coordinates). The mineralization is located inside folded iron formation units controlled by a synform structure and has an east-west strike extent of 4,5 km. The iron formation units are, in some areas, separated by several dozen metres of host rocks, and mineralization can be found approximately on maximum 780 m at dip extension and up to a depth of 650 m below the topographic surface.
Estimation and modelling techniques	<ul style="list-style-type: none">■ The nature and appropriateness of the estimation technique(s) applied and key assumptions, including treatment of extreme grade values, domaining, interpolation parameters and maximum distance of extrapolation from data points. If a computer assisted estimation method was chosen include a description of computer software and parameters used.■ The availability of check estimates, previous estimates and/or mine production records and whether the Mineral Resource estimate takes appropriate account of such data.■ The assumptions made regarding recovery of by-products.■ Estimation of deleterious elements or other non-grade variables of economic significance (e.g. sulphur for acid mine drainage characterisation).	<p>The determination of composite length was based on assay average length (4.85 m), mineralization wireframe thicknesses and bench height (14 m) at the Bloom Lake mine. The assays were composited into regular 6.0 m run lengths within each mineralized unit.</p> <p>The Mineral Resource estimation and grade variography were completed using Leapfrog Edge software</p> <p>Large search ellipsoids and two passes run strategy were used to perform the ordinary kriging grade interpolation inside the block model. The dimensions of the blocks in the block model are (X)10 m by (Y)10 m by (Z)14 m. The interpolation was done strictly within the mineralization wireframes, using various search ellipsoid orientations established according to the structural and geochemical sub-domains defined in the deposit.</p> <p>The generally neighborhood search required minimum four (4) composites, allowed a maximum of three (3) composites per hole, and restricted the selection to maximum fifteen (15) composites. Ranges and orientations of the search ellipsoids are representative of the anisotropy ratios and directions as determined from the variography analysis.</p>



Criteria	JORC Code explanation	Commentary
	<ul style="list-style-type: none">■ In the case of block model interpolation, the block size in relation to the average sample spacing and the search employed.■ Any assumptions behind modelling of selective mining units.■ Any assumptions about correlation between variables.■ Description of how the geological interpretation was used to control the resource estimates.■ Discussion of basis for using or not using grade cutting or capping.■ The process of validation, the checking process used, the comparison of model data to drill hole data, and use of reconciliation data if available.	<p>The following oxides were estimated inside the mineralization domains: CaO (%), MgO (%), MnO (%), Al₂O₃ (%), TiO₂ (%), S, Cr₂O₃, K₂O, Na₂O and P₂O₅ (%). Other non-grade variables, such as Sat (%) or magnetic iron measured from a Satmagan instrument were estimated in the resource model.</p> <p>Block size was chosen to accommodate the drilling pattern, the thickness of the mineralization units, the folded nature of the lithological units and the open pit mine planning considerations i.e. 10 m (X) by 10 m (Y) by 14 m (Z).</p> <p>The selective mining unit is based on the open pit mining fleet configuration as utilized during production phase.</p> <p>Mineralization domains were used and considered as hard boundary to constrain the resource estimate; no grades were estimated outside the mineralization domains. Hard boundaries were used.</p> <p>There was no top cutting applied to high-grade assays. Higher iron grades are thought to be geologically representative of the mineralization.</p> <p>Every step of the block modelling process, including assay and composite database, topography, drill hole location, down-hole survey, geology interpretation, geological coding, block model development and resource estimation and classification, was revised to ensure fair representation of the available data in the Bloom Lake resource model.</p> <p>Visual checks were completed on the block model and consisted of visualization of slices of the block model, mineralization envelopes and drill hole data. Globally, the geology and structural domains are adequately represented in their proper attribute model.</p> <p>Swath plots were generated to assess the correlation between the grades of the composites used in the interpolation of each block versus the iron grade estimated. Generally, the grades estimated in the blocks are close to the average grades provided by the data source; no bias was found in the resource estimate in this regard.</p> <p>Descriptive statistics of iron grades were tabulated for the assays, composites and blocks for each mineralized lithology. The average iron grade in the interpolated blocks was found to be slightly lower than the average grade available from the composites. This is a good indication that the initial grades were preserved throughout the estimation process.</p>



Criteria	JORC Code explanation	Commentary
		<p>The Ordinary Kriging (OK) based iron resource model was compared to an Inverse Distance Cubed (ID3) estimate and results were very close. This information provides a general indication that the resource model is reasonable.</p> <p>The performance of the block model for the Bloom Lake Project to predict resource estimates was evaluated through reconciliation comparisons using the mine production records between 2017 and 2022. Based on the reconciliation analysis, the block model produces acceptable predictions of the mine production numbers.</p>
Moisture	<ul style="list-style-type: none">Whether the tonnages are estimated on a dry basis or with natural moisture, and the method of determination of the moisture content.	All Mineral Resource tonnages are estimated and reported on a dry basis.
Cut-off parameters	<ul style="list-style-type: none">The basis of the adopted cut-off grade(s) or quality parameters applied.	The Mineral Resources are estimated at a cut-off grade of 15% Fe.
Mining factors or assumptions	<ul style="list-style-type: none">Assumptions made regarding possible mining methods, minimum mining dimensions and internal (or, if applicable, external) mining dilution. It is always necessary as part of the process of determining reasonable prospects for eventual economic extraction to consider potential mining methods, but the assumptions made regarding mining methods and parameters when estimating Mineral Resources may not always be rigorous. Where this is the case, this should be reported with an explanation of the basis of the mining assumptions made.	<p>The Mineral Resource is reported within an optimized Whittle open pit shell generated using the following optimization parameters.</p> <p>No dilution, ore loss, or time value of money have been considered.</p> <p>Slopes used in the software are an approximation of the overall slope angles for the pit designs.</p>



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Metallurgical factors or assumptions	<ul style="list-style-type: none">The basis for assumptions or predictions regarding metallurgical amenability. It is always necessary as part of the process of determining reasonable prospects for eventual economic extraction to consider potential metallurgical methods, but the assumptions regarding metallurgical treatment processes and parameters made when reporting Mineral Resources may not always be rigorous. Where this is the case, this should be reported with an explanation of the basis of the metallurgical assumptions made.	Metallurgical Factors assumptions are described in Section 4: Estimation and Reporting of Ore Reserves
Environmental factors or assumptions	<ul style="list-style-type: none">Assumptions made regarding possible waste and process residue disposal options. It is always necessary as part of the process of determining reasonable prospects for eventual economic extraction to consider the potential environmental impacts of the mining and processing operation. While at this stage the determination of potential environmental impacts, particularly for a greenfields project, may not always be well advanced, the status of early consideration of these potential environmental impacts should be reported. Where these aspects have not been considered this should be reported with an explanation of the environmental assumptions made.	Environmental factors or assumptions are described in Section 4: Estimation and Reporting of Ore Reserves. An additional note being that <u>future</u> waste dumps are not considered in the Whittle Optimization of Resource Shells.
Bulk density	<ul style="list-style-type: none">Whether assumed or determined. If assumed, the basis for the assumptions. If determined, the method used, whether wet or dry, the frequency of the measurements, the nature, size and representativeness of the samples.	Starting in 1998, density was determined for each sample using an air comparison pycnometer.



Criteria	JORC Code explanation	Commentary
	<ul style="list-style-type: none"> The bulk density for bulk material must have been measured by methods that adequately account for void spaces (vugs, porosity, etc.), moisture and differences between rock and alteration zones within the deposit. Discuss assumptions for bulk density estimates used in the evaluation process of the different materials. 	<p>The method used for bulk density determinations i.e. air comparison pycnometer, does not account for existing porosity in a rock. Some of the iron formation rocks contain porosity from calcite removal, however, based on visual observations of drill core, the degree of porosity was estimated to be less than 2%. The method used to measure density is judged adequate for the determination of the different rock densities in the Bloom Lake deposit.</p> <p>In 2022, a total of 14,549 pycnometer tests conducted at Lakefield were analysed and the equation derived from the analysis was used to assign a specific gravity result to some of the untested drill core sample intervals e.g. historical holes.</p> <p>Bulk Density = Fe% * 0.0284 + 2.5764.</p> <p>From all specific gravity entries in the database, tested and calculated, density averages were estimated for each lithological unit and assigned to the block model for background density values.</p>
Classification	<ul style="list-style-type: none"> The basis for the classification of the Mineral Resources into varying confidence categories. Whether appropriate account has been taken of all relevant factors (ie relative confidence in tonnage/grade estimations, reliability of input data, confidence in continuity of geology and metal values, quality, quantity and distribution of the data). Whether the result appropriately reflects the Competent Person's view of the deposit. 	<p>The classification of the interpolated FE % blocks was undertaken by considering the quality and reliability of drilling and sampling data, distance between sample points (drilling density), confidence in the geological interpretation, continuity of the geological structures and continuity of the grade within these structures, statistics of the data population and quality of assay data.</p> <p>Measured, Indicated and inferred were coded using solids representing the ranking describe above.</p> <p>The average distance of the composite for the measured blocks is 70 m, for the indicated blocks is 82 m and for the inferred blocks is 110 m.</p> <p>Reconciliation of the Mineral Resource against production data, between 2017 and 2022, supports the classification that has been applied to the Bloom Lake Mineral Resource.</p> <p>The Mineral Resource estimate appropriately reflects the Competent Person's view of the deposit.</p>



Criteria	JORC Code explanation	Commentary
Audits or reviews	<ul style="list-style-type: none">The results of any audits or reviews of Mineral Resource estimates.	<p>The current Mineral Resource estimate is based on the 2023 Resource block model produced internally by QIO and based on the geological model made by Leapfrog software in 2021 SRK audited the resource estimate in September 2021 SRK has reviewed the resource parameters presented by QIO, including the following items: domaining strategy, statistical study of assays and composites, variography analysis, interpolation and search ellipse settings, estimation process and classification of the resource.</p> <p>The overall conclusion of the audit is that the model is reasonably robust, provides reliable resource estimates of the Bloom Lake Project, and is conform to the CIM and JORC regulations.</p>
Discussion of relative accuracy/ confidence	<ul style="list-style-type: none">Where appropriate a statement of the relative accuracy and confidence level in the Mineral Resource estimate using an approach or procedure deemed appropriate by the Competent Person. For example, the application of statistical or geostatistical procedures to quantify the relative accuracy of the resource within stated confidence limits, or, if such an approach is not deemed appropriate, a qualitative discussion of the factors that could affect the relative accuracy and confidence of the estimate.The statement should specify whether it relates to global or local estimates, and, if local, state the relevant tonnages, which should be relevant to technical and economic evaluation. Documentation should include assumptions made and the procedures used.These statements of relative accuracy and confidence of the estimate should be compared with production data, where available.	<p>The Competent Person has a relatively high confidence in the Mineral Resource estimate for the following reasons:</p> <p>The database is in good standing with respect to industry standard best practices.</p> <p>The Mineral Resource estimate is based on a high proportion of recent drilling data of good quality in terms of geological information.</p> <p>The geological model is based on highly detailed interpretations which were elaborated on vertical cross-sections and on plan views. The geological model is also supported by extensive surface mapping.</p> <p>The Mineral Resource is estimated using the Canadian Institute of Mining, Metallurgy and Petroleum (CIM) Standards for Mineral Resources and Reserves, Definitions and Guidelines prepared by the CIM Standing Committee on Reserve Definitions and adopted by CIM Council May 10th, 2014. The Mineral Resource is also prepared and classified in accordance with the guidelines of the JORC Code (2012).</p> <p>The Mineral Resource should be considered as global and regional estimates only. The resource block model is considered reliable to support mining planning studies, but not considered suitable for production planning, or studies focusing on accuracy of local estimates.</p> <p>Based on the reconciliation analysis, the block model produces reasonable predictions of the mine production records compiled during years of production between 2017 to 2022.</p>



Section 4: Estimation and Reporting of Ore Reserves

Criteria	JORC Code explanation	Commentary
Mineral Resource estimate for conversion to Ore Reserves	<ul style="list-style-type: none">■ Description of the Mineral Resource estimate used as a basis for the conversion to an Ore Reserve.■ Clear statement as to whether the Mineral Resources are reported additional to, or inclusive of, the Ore Reserves.	<p>The Mineral Resource for the Bloom Lake Project was prepared by Quebec Iron Ore (Subsidiary of Champion Iron). Details of this mineral resource are presented in the above sections.</p> <p>Ore Reserves are based on the March 31, 2023 surveyed topographic surface.</p> <p>Ore Reserves are estimated on the basis of detailed design and scheduling of the Bloom Lake mine pits. The mine pit boundaries are defined by optimized pit shells generated using Whittle.</p> <p>Mineral Resources are reported inclusive of the Ore Reserves.</p>
Site visits	<ul style="list-style-type: none">■ Comment on any site visits undertaken by the Competent Person and the outcome of those visits.■ If no site visits have been undertaken indicate why this is the case.	<p>The competent person is an employee of Quebec Iron Ore. A thorough understanding of the available infrastructures and general arrangements was achieved. Site visits are regular throughout the year and contacts with the site engineering team are on a weekly basis.</p>
Study status	<ul style="list-style-type: none">■ The type and level of study undertaken to enable Mineral Resources to be converted to Ore Reserves.■ The Code requires that a study to at least Pre-Feasibility Study level has been undertaken to convert Mineral Resources to Ore Reserves. Such studies will have been carried out and will have determined a mine plan that is technically achievable and economically viable, and that material Modifying Factors have been considered.	<p>The mine is in operation and the mine plan supporting the reserve is based on operational equipment performance and costs.</p>
Cut-off parameters	<ul style="list-style-type: none">■ The basis of the cut-off grade(s) or quality parameters applied.	<p>A cut-off grade of 15% Fe (diluted) was applied. Additionally, a block will be assigned as waste if the sum of CaO% and MgO% is above 16%, or if it is outside the banded iron formation.</p>



Criteria	JORC Code explanation	Commentary
Mining factors or assumptions	<ul style="list-style-type: none">■ The method and assumptions used as reported in the Pre-Feasibility or Feasibility Study to convert the Mineral Resource to an Ore Reserve (i.e. either by application of appropriate factors by optimisation or by preliminary or detailed design).■ The choice, nature and appropriateness of the selected mining method(s) and other mining parameters including associated design issues such as pre-strip, access, etc.■ The assumptions made regarding geotechnical parameters (e.g. pit slopes, stope sizes, etc.), grade control and pre-production drilling.■ The major assumptions made, and Mineral Resource model used for pit and stope optimisation (if appropriate).■ The mining dilution factors used.■ The mining recovery factors used.■ Any minimum mining widths used.■ The manner in which Inferred Mineral Resources are utilised in mining studies and the sensitivity of the outcome to their inclusion.■ The infrastructure requirements of the selected mining methods.	<p>The ore body is mined using open pit mining techniques with electric hydraulic shovels, large wheel loaders and mining trucks. The open pit is currently being mined and therefore readily accessible and electrified with existing mine roads connecting various mining infrastructure such as waste dumps, crusher, and maintenance facility.</p> <p>The open pit limits were optimized using Whittle.</p> <p>Inter Ramp Slope Angles vary from 40 to 50.6 based on the rock properties of each wall.</p> <p>A general double bench design (28 m) was chosen; however single-bench (14 m) is necessary in some weaker areas.</p> <p>Mining dilution and Ore Loss estimates for Mineral Reserve reporting consists of a dilution skin of 2 m across and along strike. The rock type of surrounding waste determines if ore loss or dilution happens. Overall, dilution represents 1.73% of the total ore tonnage at a grade of 0% Fe and ore loss is 1.91% of ore tonnage at 29% Fe.</p> <p>Minimum mining width is 10 m for Reserve purposes but is effectively smaller operationally.</p> <p>A general minimum pit width of 100 m guides the mining stage designs. 50 m is the absolute minimum.</p> <p>All Inferred resources have been treated as waste material in the production schedules and the project economics. However, they do not cause dilution or ore loss.</p> <p>The existing mining infrastructure is suitable for current mining operations. Some additional infrastructure will eventually be required to continue operating, such as tailings expansion, two additional waste dumps and a larger maintenance bay.</p> <p>Economic Parameters used for shell generation are presented below. All costs include sustaining Capital.</p>



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Discount Rate	8.0	%																																																																					



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Metallurgical factors or assumptions	<ul style="list-style-type: none"> The metallurgical process proposed and the appropriateness of that process to the style of mineralisation. Whether the metallurgical process is well-tested technology or novel in nature. The nature, amount and representativeness of metallurgical test work undertaken, the nature of the metallurgical domaining applied and the corresponding metallurgical recovery factors applied. Any assumptions or allowances made for deleterious elements. The existence of any bulk sample or pilot scale test work and the degree to which such samples are considered representative of the orebody as a whole. For minerals that are defined by a specification, has the ore reserve estimation been based on the appropriate mineralogy to meet the specifications? 	<p>Both processing plants use mature technology with history in the region. Metallurgical recovery is from operating data and is calculated as follows:</p> <p style="text-align: center;">Shells: $r = 0.84 \text{ Fe} + 57.9$</p> <p style="text-align: center;">Planning: $r = -0.05673 \text{ Fe}^2 + 4.4028 \text{ Fe} - 0.59683 \text{ MgO} - 0.00495 \text{ MgO}^2 + 0.01424 \text{ FeMgO} + 2.863$</p> <p>Both formulae are derived from daily operational data and, while they are different, they give similar results in the LOM feed grade range. The latter formula is based on more recent data following the start of the second plant. The former is older, simpler and applicable block by block (avoids assigning a negative value to blocks that can be blended out).</p> <p>Both plants are currently being fed from all three pits in various blends. This is representative of the entire deposit and future blend ratios.</p> <p>The most critical deleterious elements are planned using min-max limits. For the sake of reserve reporting, a block is considered waste only if $\text{CaO} + \text{MgO} > 16\%$. This is in addition to the Fe cut-off of 15%.</p> <p>Blocks identified to be mostly grunerite (with little or no hematite/magnetite) are also considered waste. The blocks can have a high Fe grade but the mineral cannot be concentrated.</p> <p>The processing plants are designed to process, together, 41.9 Mtpa at an average 29% Fe and 2% MgO. They are both currently operational.</p>
Environmental	<ul style="list-style-type: none"> The status of studies of potential environmental impacts of the mining and processing operation. Details of waste rock characterisation and the consideration of potential sites, status of design options considered and, where applicable, the status of approvals for process residue storage and waste dumps should be reported. 	<p>The mine has already been authorized for operation under the federal environmental authority including Fisheries and Oceans Canada (DFO), Transport Canada, Natural Resources Canada and Environment Canada.</p> <p>Waste rock and tailings has been characterized as non-acid generating.</p> <p>Approval requests for <u>future</u> Waste Rock Storage and Tailings are in progress but are not complete.</p>



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Infrastructure	<ul style="list-style-type: none"> The existence of appropriate infrastructure: availability of land for plant development, power, water, transportation (particularly for bulk commodities), labour, accommodation; or the ease with which the infrastructure can be provided, or accessed. 	<p>All the infrastructure is available for operations which includes but is not limited to the administration building, railcar load-out, tailings pipelines and storage facility, waste water treatment plant, pump stations, megadome warehouse, mine maintenance facility, offices, main gate, truck wash bay, fuel and lube storage, phase 1 concentrator, employee accommodations, high voltage power lines and transformers and site access road.</p> <p>Phase 2 is now fully built and operational. It is expected to reach nameplate capacity in 2023.</p>
Costs	<ul style="list-style-type: none"> The derivation of, or assumptions made, regarding projected capital costs in the study. The methodology used to estimate operating costs. Allowances made for the content of deleterious elements. The source of exchange rates used in the study. Derivation of transportation charges. The basis for forecasting or source of treatment and refining charges, penalties for failure to meet specification, etc. The allowances made for royalties payable, both Government and private. 	<p>Most required CAPEX is for:</p> <ol style="list-style-type: none"> 1) Additional mining equipment as the mine continues to ramp up. 2) Tailings raises, expansion and Waste Dump construction. <p>The operating expenditures ("OPEX") are estimated from current operations. No allowance has been made for escalation. No estimate contingency has been considered for the OPEX.</p> <p>All calculations are in Canadian dollars.</p> <p>This project is not subject to any NSR agreement. However, the project is subject to an impact and benefit agreement with local First Nations communities.</p>
Revenue factors	<ul style="list-style-type: none"> The derivation of, or assumptions made regarding revenue factors including head grade, metal or commodity price(s) exchange rates, transportation and treatment charges, penalties, net smelter returns, etc. The derivation of assumptions made of metal or commodity price(s), for the principal metals, minerals and co-products. 	<p>Platt's reference 65% index was estimated to be USD99.00/tonne.</p> <p>The pit designs are, however, designed on a .875 Revenue Factor.</p> <p>There are no penalties, demurrage or NSR applied to the selling price.</p>



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Market assessment	<ul style="list-style-type: none"> The demand, supply and stock situation for the particular commodity, consumption trends and factors likely to affect supply and demand into the future. A customer and competitor analysis along with the identification of likely market windows for the product. Price and volume forecasts and the basis for these forecasts. For industrial minerals the customer specification, testing and acceptance requirements prior to a supply contract. 	<p>According to WoodMackenzie at the time of the study, seaborne iron ore imports are expected to decrease at a rate of around 0.6% per annum, reaching 1.4 billion tonnes per year in 2041 from 1.5 btpy in 2023.</p> <p>During the same period, it is expected that global iron ore quality will decrease, making high grade products increasingly sought after. In addition, the shift towards decarbonising the steel industry will further increase demand for high grade iron ores such as the Bloom Lake product.</p> <p>As an operating mine, QIO has established direct relationships with steel makers and the company has also put in place marketing agreements with trading companies to support its iron ore sales globally on a long-term basis.</p> <p>As the Bloom Lake 66.2% concentrate is high-grade and has very low impurities, it is expected that it will continue being in demand and having a strong competitive quality advantage to the mainstream 62% Fe range products.</p> <p>The price forecast for the 65% Fe index CFR China is USD99/dmt. Previous and current prices have been mostly higher, but reserve decisions are taken on stable, conservative and simple assumptions.</p> <p>Quality specifications are agreed upon with our customers. the typical grade is 66.2% Iron and <4.5% silica, with very low other contaminant thresholds</p>
Economic	<ul style="list-style-type: none"> The inputs to the economic analysis to produce the net present value (NPV) in the study, the source and confidence of these economic inputs including estimated inflation, discount rate, etc. NPV ranges and sensitivity to variations in the significant assumptions and inputs. 	<p>The macro-economic data such as P65 index and C3 freight long term forecast are mostly based on consensus from peers and industry observers.</p> <p>No inflation is modelled, prices are on a real basis and long term prices are used in NPV calculations even in the short term.</p> <p>The NPV has been verified to be positive for the project with a safe margin.</p>
Social	<ul style="list-style-type: none"> The status of agreements with key stakeholders and matters leading to social licence to operate. 	<p>Approval requests for <u>future</u> Waste Rock Storage and Tailings are in progress but are not complete.</p> <p>QIO has entered into an Impact Benefit Agreement (IBA) with the Uashat mak Mani-Utenam First Nation, which includes provisions for benefits to the Matimekush - Lac John First Nation. The IBA provides for training, jobs and contract opportunities for the Innu communities, and specifies fair and equitable financial and socio-economic benefits.</p>



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		A Social Environment Monitoring Program is already implemented by QIO. This program aims to evaluate the effectiveness of the proposed measures to mitigate impacts on the social and human environment during mine operations. Monitoring results will, if necessary, adjust the program to better respond to identified impacts. The monitoring approach is essentially based on a committee formed with municipal and regional stakeholders.
Other	<ul style="list-style-type: none"> ■ To the extent relevant, the impact of the following on the project and/or on the estimation and classification of the Ore Reserves: ■ Any identified material naturally occurring risks. ■ The status of material legal agreements and marketing arrangements. ■ The status of governmental agreements and approvals critical to the viability of the project, such as mineral tenement status, and government and statutory approvals. There must be reasonable grounds to expect that all necessary Government approvals will be received within the timeframes anticipated in the Pre-Feasibility or Feasibility study. Highlight and discuss the materiality of any unresolved matter that is dependent on a third party on which extraction of the reserve is contingent. 	<p>In 2023, QIO held:</p> <ul style="list-style-type: none"> ■ The Mining Lease BM 877 (6,858 ha) ■ In Quebec : 100% of 58 active claims adjacent to BM 877 (2,696 ha) ■ In Labrador: 100% of 152 mining claims adjacent to BM 877 (5 groups, 3,776 ha) <p>Champion Iron (the parent entity) also owns several more claims in the Labrador Through, which cover around 90,000 ha.</p> <p>All certificates of authorization required for current operations have been issued by the provincial and federal governments. Approval requests for <u>future</u> Waste Rock Storage and Tailings are in progress but have not been submitted.</p>
Classification	<ul style="list-style-type: none"> ■ The basis for the classification of the Ore Reserves into varying confidence categories. ■ Whether the result appropriately reflects the Competent Person's view of the deposit. ■ The proportion of Probable Ore Reserves that have been derived from Measured Mineral Resources (if any). 	<p>The Ore Reserves was classified in accordance with the JORC Code and the 43-101 Standard.</p> <p>The methods used are considered by the competent persons to be appropriate for the style and nature of the deposit.</p> <p>No Probable Ore Reserves are derived from Measured Mineral Resources</p>
Audits or reviews	<ul style="list-style-type: none"> ■ The results of any audits or reviews of Ore Reserve estimates. 	Only internal audits have been performed on the Bloom Lake Mine Ore Reserves.



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Discussion of relative accuracy/ confidence	<ul style="list-style-type: none">■ Where appropriate a statement of the relative accuracy and confidence level in the Ore Reserve estimate using an approach or procedure deemed appropriate by the Competent Person. For example, the application of statistical or geostatistical procedures to quantify the relative accuracy of the reserve within stated confidence limits, or, if such an approach is not deemed appropriate, a qualitative discussion of the factors which could affect the relative accuracy and confidence of the estimate.■ The statement should specify whether it relates to global or local estimates, and, if local, state the relevant tonnages, which should be relevant to technical and economic evaluation. Documentation should include assumptions made and the procedures used.■ Accuracy and confidence discussions should extend to specific discussions of any applied Modifying Factors that may have a material impact on Ore Reserve viability, or for which there are remaining areas of uncertainty at the current study stage.■ It is recognized that this may not be possible or appropriate in all circumstances. These statements of relative accuracy and confidence of the estimate should be compared with production data, where available.	<p>The competent person is of the opinion that the Mineral Reserves for the Bloom Lake Mine, which have been estimated using core drill and grade control data, appropriately consider modifying factors and have been estimated using industry best practices.</p> <ul style="list-style-type: none">■ Factors that can affect the Ore Reserves estimates are:■ Ground conditions of certain unexposed slopes may be worse than expected. This may reduce the recovery of the ore in these areas.■ Dilution and recovery factors are based on assumptions that will be reviewed after mining experiences and have been adjusted based on past reconciliations with the concentrator.■ As always, changes in commodity price and exchange rate assumptions will have an impact on the cut-off grade and optimal size of the open pit