

NI 43-101 Technical Report – Feasibility Study Update Lac Knife Graphite Project Québec, Canada



Prepared for: Focus Graphite Inc.

Project N°: J5116

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Prepared by:

DRA Global Limited

Claude Bisaillon, P.Eng. Schadrac Ibrango, P.Geo., Ph.D., MBA Ghislain Prévost, P. Eng., B. Mining Eng, M.Sc.A. Jordan Zampini, P. Eng. Daniel Gagnon, P. Eng.

<u>NewFields Canada Mining & Environment ULC</u> Leon Botham, MSCE, P.Eng.

<u>IOS Services Géoscientifiques Inc.</u> Denys Vermette, P. Geo., M.Sc, M.Sc.A.



1 EXECUTIVE SUMMARY

1.1 Introduction

Focus Graphite Inc. ("Focus" or "the Company") is a Kingston, Ontario, based company contemplating a project for the construction, installation and operation of a graphite mine and graphite ore processing facility ("the Lac Knife Graphite Project" or "the Project") to be located near Fermont, Québec. The Project will be developed based on a conventional open-pit, shovel and truck and drill and blast mining operation using mobile mining equipment powered by diesel engines. The Company is studying the development of a carbon free mining operation using zero-emission vehicles as these become more readily available and competitively priced.

Mineral resources were updated based on additional drilling conducted on the Lac Knife graphite deposit from 2014 to 2018 and these results formed the basis for the Feasibility Study Update ("FSU").

This National Instrument 43-101 ("NI 43-101") Technical Report ("Report") on the Lac Knife Graphite Project has been prepared at the request of Focus to present the FSU major findings.

The FSU Report was prepared by DRA Global Limited (DRA) with economic results completed on March 6, 2023.

The effective date of the Technical Report is March 6, 2023.

The Project is situated in Esmanville Township on NTS topographic map sheet 23B11, south of town of Fermont, in the Côte-Nord administrative region of Québec. The Project site is accessible via a combination of paved and gravel surface road from Fermont. The temporary exploration camp which is located on the western shore of Lac Knife, is within 45 km driving distance from Fermont. Road distance from Montreal to Lac Knife is approximately 1,300 km by all-season Highway 389, approximately 500 km from Baie-Comeau to Fermont. The Project is centered at 52°33'N and 67°11'W and covers 3,248.18 ha.

1.2 Land Tenure

The Project, owned 100% by Focus, consists of a group of 62 claims covering approximately 3,248 ha. There are no options, royalties, or other outstanding liens, encumbrances, or agreements. While there is no restriction related to the mineral tenure renewal, it is important to note that the claim block forms an enclave in the proposed Rivière Moisie aquatic reserve area.





1.3 Existing Infrastructure

Fermont, Québec, is the closest municipality, with about 2,300 inhabitants. Including the Towns of Labrador City and Wabush in Labrador, located approximately 30 km away, the regional population is approximately 9,400. These municipalities have the infrastructure to provide services for accommodations, community services, a skilled mining labour force, as well as mining contractors and related services. The Wabush airport is the nearest point for scheduled and charter flights from Sept-Îles, Québec, Montreal and Newfoundland-Labrador destinations with four scheduled airlines operating daily flights.

Two (2) railways systems serve the region. The Québec Cartier Railway Company is the privatelyowned and operated railroad that links ArcelorMittal's Mont-Wright facility located approximately 15 km away from the Project to their Port Cartier pellet plant and port on the shore of the St. Lawrence River (416 km). The Québec North Shore and Labrador Railway Co., owned by the Iron Ore Company of Canada (IOCC) is a common-carrier railroad that links Labrador City located at approximately 30 km from the Project to the Port of Sept-Îles (360 km). The Hydro-Québec main power line serving Fermont and the local mines passes less than five kilometres east of the Project.

1.4 History

The Lac Knife showing was originally discovered in 1959 by D. L. Murphy during a geological survey conducted by the Québec Ministry of Energy and Resources. Interest in the discovery of a graphite deposit increased in the 1980s due to the price increase for natural graphite flakes. In 1987, La Société d'Exploration Minière Mazarin Inc. (Mazarin) and *Le Fonds d'exploration minière du Nouveau Québec (Le Fonds)* signed an exploration agreement. From the period between 1985 through to 1988, exploration activities consisted of prospecting, mapping, geophysical survey, and trenching. December 1989, Mazarin and Princeton Mining Corporation (Princeton) signed an agreement to bring the deposit into production. An extensive drilling campaign followed with bulk sampling and metallurgical testing. Prefeasibility and feasibility studies were carried out between 1989 and 1990. Princeton withdrew from the project in February 1990.

In August 1990, Cambior signed a joint venture for an equal partnership with Mazarin for the Lac Knife Project. Cambior retained Magloire Bérubé to review the original Mazarin mineral resource. In 1991, Mazarin hoped to bring the deposit in production, but the economy went into recession and graphite prices declined. In 2000, interest in the Lac Knife Project increased again as the graphite market was emerging for hydrogen fuel cells and other uses. In May 2000 UCAR Graph-Tech and Mazarin signed an agreement with the goal of starting production in 2004. However, the graphite market again declined due to an increased supply from Chinese producers and the Project did not proceed. In December 2003, Mazarin spun off its niobium, dolomite and graphite (Lac Knife) assets into Sequoia Minerals. Five months later, Cambior acquired Sequoia Minerals and in 2006, IAMGOLD purchased Cambior which included the Lac Knife asset.





Focus acquired the Project in August 2010 from IAMGOLD Corporation. Up to that point, 99 drill holes were completed on the site.

1.5 Geology and Mineralisation

The Lac Knife deposit is located in the Grenville Geological Province 38 km south-east from the Grenville front within the Gagnon group. Rocks in the Gagnon group are the metamorphosed equivalent of rocks from the Ferriman group in the Labrador Trough. Within the Ferriman group, slate and turbidic sediments of the Menihek formation were metamorphosed into quartz-biotite-garnet ± graphite gneiss, and pelitic-mica-graphite rich schist of the Nault Formation which hosts the Lac Knife deposit.

The Nault Formation at Lac Knife is described as a fine to medium grained, grey, quartzofeldspathic paragneiss with biotite, muscovite and locally garnet-kyanite, \pm graphite, \pm sulfides. Sulphur species consist principally of pyrrhotite, pyrite with minor chalcopyrite and sphalerite.

Two types of Gneissic rocks exist on the deposit: silicate and calcsilicate. The gneissic rocks are intruded by bands of quartz monzonite and pegmatite more or less parallel to the gneissosity ranging in width from a few centimetres to widths exceeding one metre. The distinction between the two gneisses is not reliably reflected in the drill core log as both types have similar amounts of graphite and sulphides, and the graphite flake distribution is also similar.

The original Mazarin interpretation of the deposit was based on a simple multiple folding sequence of one graphite layer. In 2012, Roche revised this interpretation by eliminating the fold hinges which resulted in a northerly trending sequence of isolated layers. Focus re-interpreted the deposit as a sequence of tight folds similar to the original Mazarin interpretation with the addition of an interpreted fault which cut-off and displaced the mineralization on the southeast side of the deposit.

The margins of the graphite lenses display a sharp and rapid grade change from <1% Cg in the unmineralized quartzo-feldspathic gneiss increasing to \sim 5% Cg or higher within the graphitic gneiss. With the exception of the usual shoulder samples, Focus typically did not sample drill core in the unmineralized zones nor within waste rock composed of quartzo-feldspathic gneiss.

Graphite occurs as flakes ranging from very fine grains up to 2 mm. Graphitic gneiss with grades generally less than 25% Cg are composed of independent grains with coarse to medium flakes larger than 0.7 mm or graphite inclusions interlayered with mica. With grades in excess of 25% Cg, the graphite is generally in fine independent grains less than 0.7 mm. Below 4% Cg, graphite tends to be scattered, fine grained inclusions in gangue minerals.

The mineralisation has been categorised by Focus into 3 types: massive (>60% graphite), semimassive (20-60% graphite) and low grade (5-20% graphite) mineralization categories. All three types are intercalated within the mineralized envelope (repetition of several massive horizons with





semi-massive and low-grade type horizons) with both edges of the deposit characterised by low grade type mineralization.

1.6 Exploration

Since 2014, following the completion of the NI 43-101 Report on the Lac Knife Graphite Feasibility Study, Quebec, Canada ("2014 FS"), exploration programs included: a due diligence evaluation, bulk sampling, LiDAR topographic surveys, ground geophysical surveys, and 2 diamond drilling exploration and definition drilling programs (2014 and 2018). Focus has contracted the services of IOS Services Géoscientifiques (IOS) of Chicoutimi, Québec to handle the exploration activity, logistics and sample preparation for the Project.

Three (3) soil sampling phases were conducted by IOS in 2018 and 2021 to obtain samples for environmental testing (multi-element, organic carbon, NO₂-NO₃, and hydrocarbon analyses). A total of over 513 soil samples were collected from 88 sites in the Project area.

Completion in summer 2021, under IOS' supervision of 15 shallow bore holes for geotechnical and hydrogeological characterization work, of which six (6) were twinned, for a total of 21 holes (Tremblay et al, in preparation).

The 2014 definition drilling portion called for thirty-nine (39) definition drill holes to tighten-up the FS resource definition area. The 2014 drilling campaign totaled 65 NQ-sized holes with a total metreage of 8,072 m.

The 2018 drilling campaign was designed to test the graphite potential in the deep western side of the open pit shell footprint as defined in the 2014 FS. A total of 10 drill holes were completed for a total length of 3,132 mm.

1.7 Mineral Processing and Testing

SGS Canada Inc. (SGS) at Lakefield, ON carried out bench scale and pilot plant testing on composite samples from the Lac Knife deposit. The design criteria data came from the drill core composite sample. The drill core composite sample was considered appropriate for the metallurgical work for the FSU. The following tests were carried out:

- Mineralogy;
- Crushing and Grinding Tests;
- Bench Scale Flotation Tests;
- Pilot Plant Test Work.





The mineralogical study by QEMSCAN identified graphite (21%), sulphides (17.3%), quartz (19.9%), clinopyroxene (11.4%), plagioclase (8.8%), mica (6.8%), carbonates (5.7%), orthoclase (4.9%), other silicates (1.9%) and chlorite (1.4%) as major minerals in the sample.

Crushing and grinding tests were done and were used for pilot plant equipment selection and setup. Pilot plant data was used in the actual equipment design.

Bench scale tests were done for ore characterisation and flow sheet development.

The pilot plant test work optimised and confirmed the robustness of the flow sheet. The pilot plant data from Test #16 (PP-16) was the main source for design criteria, mass balance and equipment sizing. Some modifications were made to the flowsheet as part of the FSU.

The process consists of conventional one stage crushing. SAG mill and ball mill grinding with a coarse/flash flotation step in closed circuit with the ball mill. After ball mill grinding, a rougher flotation step is used for recovery of finer graphite flakes. The combined coarse and rougher flotation concentrate required upgrading. The upgrading steps were polishing, magnetic separation, primary cleaner flotation, screening into coarse and fine flakes, then polishing and cleaner flotation of each size fraction. The polishing step is the scrubbing of gangue minerals from the surface of graphite flakes by using ceramic media in tumbling mills. The PP-16 test results are given in Table 1.1, the - 200-mesh fraction has been split into a -200+400 mesh and -200 mesh fractions based on fines polishing work performed in 2021.

Concentrate Size Fraction	Weight (%)	Grade C(t) %
+48 mesh	10.0	99.7
-48+65 mesh	14.5	99.6
-65+80 mesh	8.5	99.8
-80+100 mesh	11.0	99.7
-100+150 mesh	20.4	99.3
-150+200 mesh	17.1	98.4
-200+400 mesh*	14.1	95.3
-400 mesh*	4.4	86.8
Total (Calculated)	100.0	98.2
Total Direct Assay	-	97.8
*Note:		

	<u> </u>			
Table 1.1– Size b	v Size Analys	sis of Final Grad	hite Concentrate	(PP-16)
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The -200+400 mesh and -400 mesh fraction has been inferred based on PP-16 and the fines upgrading test work performed in 2021. The PP-16 -200 mesh material represent 18.6% of the weight with 93.3% C(t).





1.8 Mineral Resource Estimate

DRA completed a Mineral Resource Estimate (MRE) update for the Lac Knife Graphite Project located in the Esmanville Township, approximately 45 km from the town of Fermont.

This updated MRE follows infill and exploration drilling completed on the Project since the Feasibility Study (FS) published in 2014. A total of seventy-five (75) holes, with a cumulative length of 11,204 m, were drilled between 2014 and 2018, since the effective date of the previous MRE.

A total of sixty-five (65) holes, for a total meterage of 8,072 m, were drilled in 2014, of which twentysix (26) holes were exploration holes and thirty-nine (39) were definition drilling to tighten-up the FS resource definition area. A total of ten (10) holes, for a cumulative length of 3,132 m, were later drilled in 2018 to test the graphite potential in the deep western side of the open pit shell footprint as defined in the 2014 FS.

The resource drill hole database used to perform the MRE update was supplied by IOS and contains 308 diamond drill holes with dips varying from -41° to -90° and drilled between 1989 and 2018. The total meterage of diamond drilling contained in the database is 33,322 m and includes 11,298 samples. Excluding the QA/QC sampling, a total meterage of 15,224 m was assayed to determine samples graphitic carbon content. Additionally, a total of 8,736 samples, still excluding the QA/QC samples, for a total meterage of 11,222 m, were assayed to determine their total sulphur content. Sampling for QA/QC purposes and the related results are discussed in Sections 11 and 12.

The MRE is based on the integration of geological, structural and grade information included in the resource drill hole database received and recorded solely from diamond core.

After the drilling database was audited and found suitable for its use to support a MRE, geology and Cg% grade were interpreted and modelled in 2D vertical cross sections followed by the construction of 3D wireframes of the mineralised zones. A rough cut-off grade of 3% Cg was used as a guide when delimiting the section polygons and 3D envelopes to discriminate contact limits between mineralised and un-mineralised zones.

A total of ten (10) mineralised envelopes were modeled, of which two (2) are the majority contributors in term of volume. Compositing was made at a fixed length of 1.5 m, which represents the statistical mode of the sampling length histogram.

The selected block size is 5 m × 5 m × 5 m and is based on the average drill spacing over the estimation domain, the projected mining equipment to be used and the shapes and sizes of the modelled geological envelopes. A majority coding principle was applied to code blocks falling within each geological solid. Geology and grades modelling, as well as resource estimation, were performed using the HxGN MinePlan $3D^{TM}$ (previously MineSightTM) package. Graphitic carbon (Cg%) was estimated using Inverse Distance Squared ("IDW2") which was found to be the more





suitable estimation approach based on a thorough statistical and geostatistical analysis of grades. Following visual inspections of grades spatial distribution and the generation of cumulative probability plots, it has not been found relevant to apply a grade capping prior to compositing. Density was also interpolated using IDW2 based on a database of density measurements using water displacement according to surface dry ASTM-C127-07 protocol.

Three (3) successive passes were used to inform all blocks coded according to the majority coding principle and located within each mineralised envelope. The sizes of the search ellipsoid varied for each geological solid according to the results of variogram analysis performed. Search ellipses of variable orientations were also implemented to ensure a better match with the orientation of each geological solid.

For the first pass, and for all interpolated solids, the maximum and minimum number of composites to interpolate a block were respectively set to 15 and 9. The maximum number of composites allowed for a single hole was set to 3. Because of the combination of both constraints, at least three (3) holes were required to allow a block to be interpolated during this first pass. In the second pass, and for all interpolated solids, the maximum and minimum number of composites to interpolate a block were respectively set to 15 and 6. The maximum number of composites allowed for a single hole was set to 3.

Due to the combination of both constraints, at least two (2) holes were required to allow a block to be interpolated during this second pass. For the third pass, and for all interpolated solids, the maximum and minimum number of composites to interpolate a block were respectively set to 15 and 3. The maximum number of composites allowed for a single hole was set to 2. Because of the combination of both constraints, at least one (1) hole is required to allow a block to be interpolated during this third pass. A code matching approach was setup to ensure that search parameters and interpolation procedures are constrained to each mineralised solid.

A preliminary open pit shell was run on the estimated grade block model to constrain the resources and to support the Canadian Institute of Mining, Metallurgy and Petroleum's ("CIM") requirement that mineral resource should have a "reasonable prospect for eventual economic extraction". Only part of the mineralisation contained within the preliminary pit shell has been declared as Mineral Resource.

The Mineral Resource has been classified according to the CIM definitions for classification of Measured, Indicated, and Inferred Mineral Resources. All blocks falling within the preliminary resource pit shell and interpolated during the first and the second pass have been classified as Indicated Mineral Resources. All blocks interpolated during the third pass and falling within the preliminary resource pit shell have been classified as Inferred Mineral Resources. It has not been possible to define Measured Mineral Resources on the Lac Knife graphite deposit because of its





structural complexity as revealed through the compilation and analysis of the results of the infill drilling program performed in 2014 after the lodging of the FS.

Schadrac Ibrango, P.Geo, PhD, MBA, consultant at DRA, is responsible for estimating the Mineral Resource. Dr. Ibrango is a Qualified Person ("QP"), independent of Focus, within the meaning of NI 43-101 – Standards of Disclosure for Mineral Projects of the Canadian Securities Administrators.

Applying a cut-off grade (COG) of 4% Cg, the disclosed MRE for the Project is 12.0 Mt of Indicated resources grading 15.34 % Cg for an estimated content of 1.7 Mt of in-situ natural flake graphite and 0.6 Mt of Inferred resources grading 16.90% Cg for an estimated content of 0.1 Mt of in-situ natural flake graphite (Table 1.2).

Tonnes (Mt)	Graphitic Carbon (%)	Concentrate (Mt)
-	-	-
12.0	15.34	1.7
12.0	15.34	1.7
0.6	16.90	0.1
	- 12.0 12.0	Tonnes (Mt) Carbon (%)

Table 1.2 – Lac Knife – Mineral Resources (4% Cg Cut-Off Grade)

1. Mineral Resources are inclusive of Mineral Reserves.

2. The Mineral Resources were estimated following the Canadian Institute of Mining, Metallurgy and Petroleum (CIM), CIM Standards on Mineral Resources and Reserves, Definitions and Guidelines prepared by the CIM Standing Committee on Reserve Definitions and adopted by CIM Council.

- 4. The Inferred Mineral Resource in this estimate has a lower level of confidence that that applied to an Indicated Mineral Resource and must not be converted to a Mineral Reserve. It is reasonably expected that the majority of the Inferred Mineral Resource could be upgraded to an Indicated Mineral Resource with continued exploration.
- Resources are constrained by a Pseudoflow-optimised pit shell using HxGn MinePlan software. Pit shell is define using 45-degree slope, \$CAD 1,475/t concentrate sales price, \$CAD 5.91/t ore mining costs, \$CAD 34.42/t processing costs, \$CAD 10.53/t G&A and \$CAD 265.00/t for concentrate transportation costs, 90.7% process recovery, 97.8% concentrate grade and an assumed 50,000 tpy concentrate production.
- 6. The Effective Date is March 6, 2023.
- 7. Numbers may not add due to rounding.

1.9 Mineral Reserve Estimate

The open pit design includes 9,310 kt of Probable Mineral Reserves at a grade of 14.97% Cg. To access these reserves, 4,702 kt of overburden and 19,073 kt of waste rock must be mined. This total waste quantity of 23,775 kt results in a stripping ratio of 2.6 to 1. Table 1.3 presents the open pit mineral reserves for the Lac Knife deposit.

The Mineral Reserve Estimate for the Lac Knife deposit were estimated using the updated resource model that was prepared by DRA with an effective date of November 15, 2022. The Mineral



Mineral Resources, which are not Mineral Reserves, do not have demonstrated economic viability. The estimate of Mineral Resources may be materially affected by environmental, permitting, legal, title, taxation, sociopolitical, marketing, or other relevant issues.



Reserves are the portion of the Measured and Indicated Mineral Resources that have been identified as being economically extractable and which incorporate mining losses and the addition of waste dilution.

Category	Tonnage (kt)	Cg Grade (%)
Proven	-	-
Probable	9,310	14.97
Proven & Probable	9,310	14.97

Notes:

1. Estimate of Mineral Reserves has been estimated by the Reserves QP.

2. The Mineral Reserves are reported in accordance with the CIM Standards on Mineral Resources and Reserves, Definitions and Guidelines prepared by the CIM Standing Committee on Reserve Definitions and adopted by the CIM Council.

3. The effective date of the estimate is March 6, 2023.

- 4. Mineral Reserves are included in Mineral Resources.
- 5. Pit shell was developed using a 45-degree pit slope, concentrate sales price of \$1,375\$/t concentrate, mining costs of \$5.91 /t ore, \$5.40 \$/t waste, and 3.71\$/t overburden, processing costs of 34.42 \$/t processed, G&A cost of \$10.53 \$/t processed and transportation costs of 265 \$/t concentrate, 90.7% process recovery and 97.8% concentrate grade and an assumed 50,000 tpa concentrate production.
- 6. The Mineral Reserves are inclusive of mining dilution and ore loss.
- 7. The open pit Mineral Reserves are estimated using a cut-off grade of 5.1 % Cg.
- 8. The strip ratio for the open pits is 2.6 to 1.
- 9. The Mineral Reserves are stated as dry tonnes processed at the crusher.
- 10. All figures are in metric tonnes.
- 11. Totals may not add due to rounding.

The pit optimisation analysis was completed using the MSOPit module of HxGN MinePlan®. The optimizer uses the Pseudoflow algorithm to determine the economic pit limits based on input of mining and processing costs, and revenue per block. In compliance with NI 43-101 guidelines regarding the Standards of Disclosure for Mineral Projects, only blocks classified in the Measured and Indicated categories drive the pit optimisation. Inferred resource blocks are treated as waste, bearing no economic value.

The pit optimisation analysis considered the Cg grades after mining dilution. Using the cost and operating parameters, a series of 23 pit shells was generated by varying the selling price (revenue factor) from \$138 to \$1,650/t of concentrate. The pit associated with a revenue factor of 0.60 was selected to guide the pit design. The chosen pit shell contains 10.6 Mt of Measured and Indicated Mineral Resources with a Cg grade of 15.79% and a stripping ratio of 1.9 to 1. This pit shell includes approximately 88 % of the Measured and Indicated Mineral Resources. The cut-off grade for the open pit was calculated to be 5.1% Cg.

An open pit was designed with an overall pit slope of 45° and 48° for the northeast and southwest walls respectively, based on based on a geotechnical study provided by Journeaux Assoc. in a





report entitled "Preliminary Open Pit Slope Design – Lac Knife Deposit, July 24, 2014" and were adjusted to account for the shape of the pit. The pit has 10 m high benches, and the access ramp is 20 m wide with a maximum grade of 10%. The pit will be approximately 1,100 m long and 400 m wide at surface with a maximum pit depth from surface of 120 m. The open pit design includes 9,310 kt of Probable Mineral Reserves at a grade of 14,97% Cg. To access these reserves, 4,702 kt of overburden, 19,073 kt of waste rock must be mined. This total waste quantity of 23,775 kt results in a stripping ratio of 2.6 to 1.

1.10 Mining Methods

The mining method selected for the Project is a conventional open pit, truck and shovel, drill and blast operation. Vegetation, topsoil and overburden will be stripped and stockpiled for future reclamation use. The ore and waste rock will be mined with 10 m high benches, drilled, blasted, and loaded into rigid frame haul trucks with hydraulic excavators.

A topsoil and overburden stockpile has been designed on the west side of the open pit to the south of the plant site. Material that will be placed in this stockpile will be used for future reclamation. A waste rock pile has been designed between the plant site and the overburden stockpile. The waste rock pile will be built in 10 m high lifts and compacted by a bulldozer.

A mine plan was developed which supplies the required quantity of ore to produce 50,000 tonnes of concentrate per year for the 27-year life of mine (LOM) for the open pit. Mining will begin in a starter pit which will supply the majority of the run of mine ore for the first five (5) years of the operation. The purpose of the starter pit is to maximize the feed grade and minimize the strip ratio during the early years of production. The total material mined per year during the 27-year life of the open pit ranges from 760 kt in Year 1 to a maximum of 1,634 kt in Year 20. The average annual grade varies from 12.9 % to 17.6% Cg during the mine life.

The mining operations will be carried out by Focus personnel who will operate the mine all year round, seven (7) days per week, ten (10) hours per day. Overburden removal will take place during the winter to take advantage of the frozen ground conditions. Since the concentrator is designed to operate year-round both on the day and night shift, an ore stockpile was designed to maintain the run of mine ore feed to the plant during the nights and weekends.

The mine will use a fleet of five (5) to eleven (11), 40-tonne haul trucks, a hydraulic excavator with a 6 m³ bucket, one (1) wheel loader, one (1) or two (2) track drills as well as a fleet of support and service equipment. Blasting will be carried out using bulk emulsion with a powder factor of 0.39 kg/t.





1.11 Recovery Methods

The Lac Knife concentrator is located near the open pit mine. As part of the FSU, the plant throughput was increased to produce 50,000 t/y of graphite, containing 47,781 t/y of high-grade salable concentrate. There is no current market for ultrafine (-400 mesh) graphite, and thus, it is assumed the balance is sent to tailings.

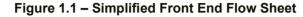
A simplified flow sheet is presented in Figure 1.1 and summarises the plant process. The ROM mineralised material will be transported to the primary jaw crusher. The crushed mineralised material is ground in a SAG mill. The SAG mill discharge is screened, and the screen oversize is returned to the SAG mill. The SAG screen undersize is pumped to the ball mill circuit. The ball mill is in closed circuit with the coarse/flash flotation cell and hydrocyclone. This arrangement will allow for removal of coarse graphite flakes as soon as they are liberated and helps maintain graphite flake integrity. The cyclone overflow is sent to rougher flotation. The rougher tailings are pumped to the final tailings pond. The combined coarse and rougher flotation concentrates are upgraded in a two-phase cleaning circuit to produce a high-quality graphite concentrate.

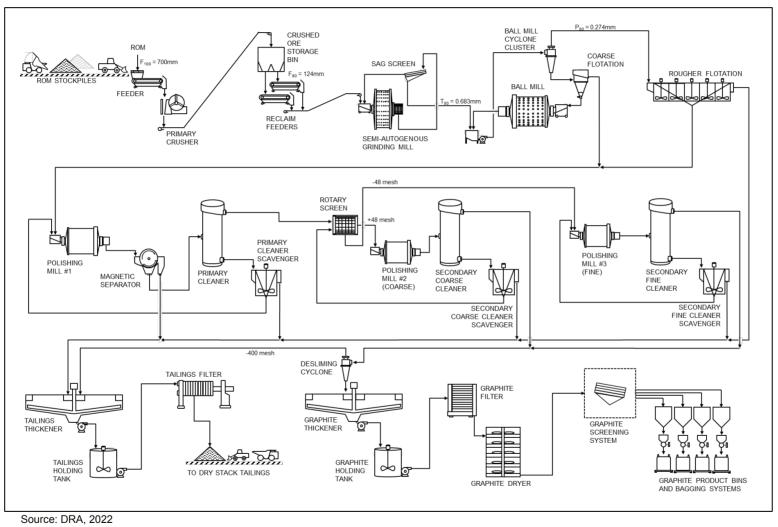
The combined coarse and rougher concentrates are polished in a polishing mill using ceramic media. The polishing mill scrubs the surface of the graphite flakes and thus removes the gangue minerals that were stuck to the flakes. The magnetic separation is to remove magnetic minerals that cannot be scrubbed off. The non-magnetic product is cleaned in the primary cleaner flotation column, before being screened and sent to the coarse and fine polishing circuits. The coarse and fine polishing circuits each contain a polishing mill and additional cleaner and scavenger flotation steps. The secondary fine cleaner concentrate and the secondary coarse concentrate are both pumped to the graphite concentrate thickener.

The final graphite concentrate 98.2%C(t) is filtered and dried to 0.1% moisture. After drying the product is dry screened and bagged in super sacks for transport. The flotation reagents are fuel oil and methyl isobutyl carbinol (MIBC).









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1.12 Infrastructure

Mining infrastructure, tailings management facility, as well as infrastructure and services have been added the mine and concentrator to complete the investment cost of the project.

The Lac Knife mine and processing plant substation will be fed through a new 34.5 kV overhead power line supplied and installed by Focus from the existing distribution point at the Normand substation.

The main access road will be developed based on the proposed new routing of Highway 389 thereby reducing the originally planned 28 km access road to 6 km.

In addition to site roads, water services, access to telecommunications, provisions have been made for ancillary buildings and facilities such as storage, office complex, change house and canteen.

Considering the proximity of a well-developed iron ore mining industry in the Fermont area and that the total workforce is not expected to exceed 109 people, no permanent camp has been provided for the Project. It is expected the nearby towns of Fermont or even Labrador City and Wabush will provide both work force and housing to the employees. Employees will be transported by company buses from Fermont over a distance of 35 km.

1.13 Tailings Storage and Water Management

Design studies were completed to assess tailings disposal requirements to safely store and manage the concentrator tailings from the Project. Options for management of process and other water flows on site were also assessed, to meet regulatory and international best practice guidelines for the Project's mine life.

A proposed site was identified prior to initiating the design studies for the Filtered Tailings Storage Facility (FTSF). The identified site was assessed against other potential locations within approximately 10 km radius from the mine to confirm that the selected site was the best alternative for the FTSF development. The assessment included a comparison of options for a range of factors including: the distance from the processing plant, environmental considerations (proximity to water bodies and the watershed), social considerations, regulatory and permitting and health and safety of workers and the public.

The FTSF site selected for the project is located about 2.0 km to the south-west of the open pit mine and the plant. The facilities included within the FTSF, and related infrastructure include the tailings containment impoundment area, a water storage pond and miscellaneous structures such as diversion channels or berms as required. The FTSF and water storage pond are fully lined and include measures for seepage collection and control.





The FTSF will be developed in stages over the operating life of the mine, to provide tailings disposal capacity as required. The operation of the FTSF will also allow for progressive reclamation of the facility, to reduce long-term post-closure costs. The operating plan has been developed to minimize the volume of free water which may be contained within the FTSF, with the water storage pond as the primary water management structure on site. The operational scheme proposes the transfer of free water from the FTSF to the water storage pond to allow for the sedimentation of fine particles and other minerals. Water will then be transferred from the polishing pond to the concentrator processing plant to be used for the mill's process needs or treated and discharged to the environment as required to maintain the site water balance.

1.14 Market Studies and Contracts

Benchmark Mineral Intelligence ("Benchmark") Flake Graphite Price Index is an independent marketing source who compiles international graphite prices for various commercial size fractions and concentrate purities. Benchmark was contracted to carry out an independent market study of the world supply and demand for flake graphite concentrate and provide a price forecast for the 2023-2027 period.

The demand for electric powered vehicles and the reduction of greenhouse gas emissions will see an increase in the demand for graphite flakes which is one of the major components of the batteries used for these vehicles.

Demand for locally supplied graphite will increase due to the demand, government support and easing the reliance on the China market for these products. Lac Knife graphite concentrates are very high grade and can be utilised in both the battery market as well as the high-end user markets which demand a higher selling price due to the lack of available high grade graphite flakes.

Based on this information, Focus has provided the price forecasts given in Table 1.4 for the Lac Knife graphite concentrates. The sensitivity analysis examines a range of prices that are 30% above and below the base case prices.

Concentrate	Weight	Grade	Price
Size Fraction	(%)	Cg%	USD/t
+48 mesh (Jumbo)	10.0	99.7	\$2,040
-48+80 mesh (Large)	23.0	99.7	\$1,868
-80+150 mesh (Intermediate)	31.4	99.4	\$1,762
-150+400 mesh (Fine)	31.2	97.0	\$1,579
–400 mesh (Tailings)	4.4	86.8	\$0
Weighted Average	100.0	98.2	\$1,679

Table 1.4 – North America East Coast, Lac Knife Basket, Nominal





1.15 Environment Studies Permitting and Social or Community Impact

In order to obtain its Certificate of Authorisation (CA) from the Quebec government, Focus must submit an Environmental and Social Impact Assessment (ESIA) study for the Lac Knife project. An ESIA study was initiated in 2013 with the consultation of two first nation (Innu) communities and several stakeholders potentially impacted by the Project. Consultation with the Uashat Mak-Mani-Utenam Innu band council led to the signing of a Pre-Development Agreement in October 2014. Focus submitted a first series of documents relating to the Lac Knife ESIA was to MELCCFP for review in 2014, subsequent to which the Company received two (2) series of questions.

The final set of documents related to the second series of questions is expected to be submitted in the fall of 2023. Current assessment of the Project's impacts is preliminary and will be detailed in the upcoming update of the ESIA study.

Several baseline studies have been completed since 2013 to set environmental reference values related to soils, lake sediments, surface water, groundwater, and noise. The Lac Knife area currently benefits from clean air owing to its remote location away from any human or industrial activities. Air quality modeling is underway to evaluate potential dispersion of contaminants, including dust, during the construction and operation phases. Geochemical characterization of soils and lake bottom sediments highlighted local, naturally occurring concentrations of certain metals exceeding the quality criteria recommended by the regulations. As there is no other industrial activity in the Lac Knife area, the sources of these metals are interpreted to be natural, and thus can be used as reference background.

Hydrogeochemical modelling is underway to assess ground water quality, which could be compared to the quality of contact water from the tailings and waste rock storage facility and develop conceptual approaches for the water treatment plant. Groundwater, which flows toward Lac Knife and the Pékans River sub-watershed, are naturally slightly acidic to locally alkaline and characterised by sulfide (S²-), manganese (Mn) and mercury (Hg) concentrations higher than the usual quality criteria which will serve as a benchmark to monitor contamination through a set of 30 piezometers. A noise characterization study indicated that noise annoyance from operation is not to be expected by residents, although it may impact sensitive wildlife such as woodland caribou.

The Project is located within the Spruce Moss – East domain of the Continuous Boreal Forest subzone and is characterised by alternating small hills and depressions categorized as wetlands. In 2005, the Québec government proposed the creation of the Moisie River aquatic reserve (MRAR) protected area to protect the river's exceptional salmon habitat from hydroelectric development. The Lac Knife mining titles predate the onset of this aquatic reserve and is hence excluded but partly enclaved in the MRAR.

Several surveys were carried out since 2014 to inventory vegetation, amphibians, reptiles, mammals, fish, bats, and birds. Results shows that no vegetation species are considered as





threatened, vulnerable or exotic invasive were observed in the Project area. The little brown bat and bald eagles, designated as threatened or vulnerable species, have been confirmed to inhabit near the mining site. Woodland caribou were not observed during field studies conducted recently.

Deforestation and site preparation as well as presence of infrastructure and machinery operations will impact the physical and biological environments surrounding the Project. Mitigation of the impacts predicted over the entire life of mine will be addressed by Focus in the coming months through the public consultation process.

Acidic mining drainage has been identified by Focus as a key issue since up to 30 % pyrrhotite and pyrite are associated with the graphite mineralization and host rocks. Leaching and kinetic testing carried out since 2012 showed that waste rock material ranged from non-potentially to potentially acid generating (PAG). Several metal contaminants are susceptible to be leached from waste rock due to acid generation. Ore and tailings samples have been classified as PAG and potentially leachable for several metals and sulphate up to concentrations that may exceed the groundwater quality criteria. Some ore samples showed potential for self-heating. The seriousness of this acid generation potential is enhanced by the proximity of the Project to the Aux-Pekans River sensitive ecosystem.

Non acid generating (NAG) waste rock and acid generating tailings will be stored into two (2) separate facilities. Waste rock will be recovered by a layer composed of overburden material and topsoil to provide a growth medium for vegetation. The tailings, composed of filtered residues containing less than 10% pore water, will be stacked dry and contained by berms of non-PAG waste rocks. Tailings will be layered with dolomitic marble interlayers to mitigate the generation of acid mine drainage.

This marble will be extracted from a quarry located near the Lac Knife mining site (Montagne-aux-Bouleaux) and will be periodically added to the tailings and waste rock. A geosynthetic liner and draining system will be installed underneath the tailings pile and the waste rocks, ore pads and water storage pond. A network of drainage canals will be installed at the base of these facilities to collect any runoff or seepage water to divert it to a water treatment plant. Closure activities for the FTSF will consist in capping the tailings with layers of sand and a geosynthetic liner followed by overburden material and topsoil to provide a growth medium for vegetation. The water storage pond will be drained and reclaimed.

Several parameters such as meteorology, atmospheric dust dispersion, hydrology, hydrogeology, groundwater and final effluent quality and vegetation will be monitored from before at the onset of mining operations and until the post-closure phase. A weather station will be installed near the mine site and atmospheric sampling stations will be positioned in strategic locations.

Observation wells located near infrastructure at risk of environmental contamination, will be used for post-restoration groundwater quality monitoring. The final effluent will be sampled periodically





until metals and chemical contaminants reach the recommended concentrations mentioned in the Certificate of Authorization. The water treatment plant must be maintained in operation until long-term water quality is achieved in final effluent. A revegetation monitoring program will be maintained until recolonization has been achieved over reclaimed and perturbed natural areas.

Focus will rehabilitate the mining site to a state appropriate for use by adjacent communities including Fermont residents, First Nations and other future users of the territory. Such work will include removal of all infrastructures, revegetation of lands including of the tailings storage facility and water storage pond. A cost-benefit analysis will be undertaken to evaluate the possibility of back-filling the pit. If such a rehabilitation method is not possible, the pit will be filled with water and the surroundings will be secured.

1.16 Capital and Operating Costs

The Project scope covered in this Report is based on the construction of a greenfield mining and processing facility with an average mill feed capacity of 365,320 t/y of ore and producing 50,000 t/y of graphite concentrate.

The capital and operating cost estimates related to the mine, the concentrator, and all required facilities and infrastructure have been developed by DRA or consolidated from external sources.

The capital and the operating costs are reported in Canadian Dollars ("\$").

1.16.1 CAPITAL COST

The capital cost estimate (Capex) consists of the direct and indirect capital costs as well as contingency. Provision for sustaining capital is also included, mainly for tailings storage expansion. Amounts for closure and rehabilitation of the site and required working capital have been estimated as well.

The pre-production initial capital cost for the scope of work is \$236.9 M, of which \$181.6 M is direct cost, \$30.3 M is indirect cost and \$25.0 M is contingency. A provision of \$49.6 M is also required for sustaining capital which excludes the amounts for closure and rehabilitation of the site and working capital.





Table 1.5 presents a summary of the pre-production initial capital and the sustaining capital costs for the Project.

Description	Pre-Prod Initial Capex (\$ M)	Sustaining Capex (\$ M)	Total Investment Capex (\$ M)
Direct Costs	· · · · · · · · · · · · · · · · · · ·		
Mine Development – Pre-stripping	8.5	0.0	8.5
Mining Equipment and Facilities	18.8	18.9	37.7
Crushing and Concentrating	99.3	0.5	99.8
Tailings Storage and Water Management	22.3	30.2	52.5
Concentrate Storage and Handling	1.8	0.0	1.8
Infrastructure	11.0	0.0	11.0
Power and Communications	19.9	0.0	19.9
Sub Total Direct Cost	181.6	49.6	231.2
Indirect Costs	· · · · · · · · · · · · · · · · · · ·		
EPCM	16.0	0.0	16.0
Owner's Costs	14.3	0.0	14.3
Sub Total Indirect Cost	30.3	0.0	30.3
Contingency	25.0	0.0	25.0
Total	236.9	49.6	286.5
The totals may not add up due to rounding.			

Table 1.5 – Summary of the Investment Capex Estimate





1.16.2 OPERATING COST

Operating costs (Opex) have been developed for the Project and cover Mining, Processing, Site Services and Administration. The sources of information used to develop the Opex include in-house databases and outside sources particularly for materials, services and consumables. All amounts are in Canadian dollars (\$), unless specified otherwise. The LOM average Opex, given as dollar per tonne of concentrate, is summarised in Table 1.6.

Area	Avg Operating Cost (\$/tonne of conc.)
Mining	129.77
Processing and Tailings	330.82
Tailings Cost	4.38
Plant Administration, Infrastructure & Tech. Serv.	95.78
Total Average Operating Costs	560.75

Table 1.6 – Summary of LOM Average Opex

Table 1.7 presents the estimated personnel requirements for the Project. This workforce is comprised of staff as well as hourly employees. Supervisory personnel as well as the administration employees will work on a 5 days per week basis.

The hourly workforce at the plant will work on rotation to provide 24 hour per day coverage, 7 days per week. It is assumed that all employees will come from the area. The hourly workforce for the mining operations will be on a 10-hour, 7 day per week basis.

Area	Number
Mining	30
Processing	60
Plant Administration, Infrastructure & Tech. Serv.	19
Total Manpower	109

1.17 Economic Analysis

The economic/financial analysis for the Project. is based on fourth quarter 2022 price projections in U.S. currency and cost estimates in Canadian currency. An exchange rate of 0.736 USD per CAD is assumed to convert USD market price projections and particular components of the preproduction Capex and Opex into CAD. The annual cash flow model prepared in Microsoft Excel is





based on a graphite concentrate production rate of 50,000 tonnes per year. No provision is made for the effects of inflation. The evaluation is carried out on a 100%-equity basis.

The FSU is based on a 27-year LOM and produced a Pre-tax Net Present Value ("NPV") of \$500.6 million calculated at a discounted cash flow ("DCF") rate of 8%. Pre-tax, the financial model has an Internal Rate of Return ("IRR") of 29.1% and a capital payback period of 2.88 years.

The after-tax financial model has an NPV of \$284.8 million calculated at a DCF rate of 8%, and with an IRR of 22.6% and a capital payback of 3.38 years.

Description	Total (Million CAD)
Total Revenue (LOM)	2,759.2
Total Concentrate Transport Cost (LOM)	194.1
Total Operating Costs (LOM)	701.5
Pre-production Capital Cost	236.8
Initial Working Capital	7.2
Total Sustaining Capital Cost (LOM)	50.5
Mine Closure and Rehabilitation	10.0

Table 1.8 – Project Evaluation Summary

Table 1.9 – Financial Results Summary

Description	Pre-Tax	After Tax
Total Cash Flow (\$ Million CAD)	1,761.4	1,080.3
NPV@ 8% (\$ Million CAD)	500.6	284.8
NPV@ 6% (\$ Million CAD)	671.1	392.7
NPV @ 10% (\$ Million CAD)	376.6	206.0
IRR (%)	29.10	22.57
Payback Period (years)	2.88	3.38

1.18 Other Relevant Data and Information

A project implementation schedule was prepared for the Project. The design and construction period through to commissioning and start-up is slated to be 26 months. Prior to the start of the project, it would be necessary to start the bid process for the long-term equipment as well as obtain quotations for the design and construction of the main incoming access road and installation of the power line from Fermont.





The Project will be developed based on an engineering, procurement, construction management (EPCM) style project whereby one EPCM contractor will have full responsibility for the Project, leading all sub-consultants and contractors, and report to Focus Management. The EPCM contractor will conclude its responsibility upon the successful completion of the commissioning and start-up of the Project.

1.19 Interpretation and Conclusions

1.19.1 MINERAL RESOURCE ESTIMATE

The Mineral Resource Estimation performed in 2022 is an update of the MRE performed in 2014 following additional drilling on the project since this date. Drilling added was targeted to better explore the area of the open pit footprint defined during the FSU, explore an area located on the west of the open pit footprint and test an area located in the north and called "Zone North". In 2014, a total of seventeen (17) exploration holes were drilled in the Zone North. Drilling was widely drilled and the more interesting area, for a MRE perspective, was drilled at a drill spacing of about 200 m. Despite this wide drilling spacing, an attempt was made to estimate the volumetric potential of the area. It accounts to approximately 829,000 m³ and, with an assumed average density of 2.81, there is a potential tonnage of 2.33 Mt.

The length weighted grade average of samples constrained within the modelled solid for Zone North is about 10% Cg. Although, this area offers a grade average less than what was defined in the 2014 FS open pit shell, it remains a potential opportunity for future exploration with the intent to better define the Mineral Resources once grades and geological continuity are confirmed.

In the next phase of the Project, DRA recommends exploring and gathering additional data for a better understanding of the Zone North.

1.19.2 MINERAL RESERVE ESTIMATE

Proven and probable mineral reserves were developed from the open pit mine design for the Lac Knife deposit. These mineral reserves which account for dilution and ore loss formed the basis of the life of mine plan that was prepared.

The open pit design includes 9,310 kt of Probable Mineral Reserves a grade of 14.97% Cg. In order to access these reserves, 4,702 kt of overburden, and 19,073 kt of waste must be mined. This total waste quantity of 23,775 kt results in a stripping ratio of 2.6 to 1. At the planned production rate of 345 kt of ore per year, the pit contains roughly 27 years of mineral reserves.





1.19.3 PROCESS

The objective of achieving a graphite concentrate with grade of 97.8% C and recovery 90.7% was achieved during a pilot plant testing program conducted at SGS Minerals in Lakefield in 2013-2014.

The process plant is designed based on the production of 50,000 dry t/y of graphite concentrate containing 47,781 dry t/y of high-grade of 97.8% C(t) salable graphite concentrate from a feed grade of 14.8% C(t). The total graphite recovery of 90.7% and the salable graphite concentrate recovery of 86.7% (excluding ultrafine) are average figures based on the pilot plant test work results and may change depending on the ore composition. A suitable process flow sheet includes crushing, grinding, polishing, flotation, concentrate dewatering and drying, concentrate screening and bagging, and tailings filtration and loadout. Mining equipment, tailings storage facility, concentrate transportation as well as infrastructure and services have been added to complete the investment cost estimate of the Project.

1.19.4 Environment

The consultation and information process, initiated in 2013 with First Nation communities and stakeholders concerned by the Project, highlighted several issues regarding water quality, especially that of the *Rivière-aux-Pékans* salmon population, recreational activities and noise levels for some local tenants due to access road traffic and mining operations. As the Project is located on Innu Takuaikan Uashat mak (ITUM) ancestral territory, First Nation representatives have required that a communication and consultation strategy being put in place to be kept informed of the project development and assessment of environmental impact. Moreover, Innu community expressed that they are expecting participation to potential economic fallout of the Project. These intentions led to draft a pre-project development agreement signed in 2014 between Focus and ITUM.

Even if the Lac Knife area is characterised by a clean environment, several studies carried out to set environmental baselines highlighted metal concentrations exceeding the quality criteria recommend by regulations. Since no industrial activity is present in the Lac Knife area, the acidic pH of water and metal contents exceeding references threshold are interpreted to be natural and mainly related to geological processes for soils, bottom lake sediments and groundwater.

Woodland caribou were not observed during field studies, but the little brown bat and bald eagles, which are designated as threatened or vulnerable species, have been confirmed to inhabit near the Project site. Mitigation measures should be considered to preserved bats such as installation of bat boxes or maintain a riparian strip along most water bodies in the mining site area.

Acid mine drainage has been identified as a key issue with the presence of up to 30 percent reactive sulphides (pyrrhotite, pyrite) associated with graphitic ore and found locally in waste rocks, which are susceptible to generate acid mining drainage through their oxidation. Leaching and kinetic





testing carried out since 2012 showed that ore and tailings are potentially acid generating (PAG) while waste rock ranged from non-PAG to PAG. Ore, tailings, and waste rock are also considered as leachable for several metals and sulphate while some ore samples showed potential for self-heating mainly due to abundance of pyrrhotite. Mitigation measures must be implemented to prevent such drainage that could contaminate and damage Lac Knife and *Rivière-aux-Pékans* ecosystems.

The seriousness of the acid generation potential is enhanced by the proximity of the project to the Aux-Pékans River which is a sensitive ecosystem and a tributary of the Moisie River, well-known for its salmon habitats and fishing activities. To mitigate acid mine drainage generation and/or contamination of groundwater, tailings will be filtered and stored as dry stack amended with dolomitic marble layers. Tailings will be progressively rehabilitated during the operations.

A geosynthetic liner and a draining system will be installed underneath the tailings, waste rocks and ore facilities to collect any runoff or seepage water and divert it to a water storage pond. Water will be pumped toward a treatment plant before recycling or discharge in the final effluent.

Closure activities will include capping the tailings stack with sand and a geosynthetic liner followed by overburden material and topsoil to provide a growth medium for vegetation. A revegetation monitoring program will be maintained until recolonization has been achieved. Periodic monitoring and sampling of surface water and groundwater will continue after closure until their qualities reach background levels requested by regulatory agencies. The water treatment plant would be maintained in operation until stable water quality is achieved in final effluent. The water storage pond will be drained and reclaimed.

The main source of greenhouse gas (GHG) emissions directly related to the mining operation relates to internal combustion from mobile equipment which should emit 1,970 tonnes of CO₂ per year over more than 27 years. The Company is studying the development of a carbon free mining operation using zero-emission vehicles as these become more readily available and competitively priced. Similarly, shipping of the graphite concentrate to Baie-Comeau is to be conducted by electric trucks as soon as these are commercially available. Finally, CO₂ is to be released through the sulphatation process in the tailings, the magnitude of which is to be documented.

Focus will evaluate potential options to optimize the recovery and market pyrrhotite and ultrafine graphite, not contemplated in the current study. Partial or total recovery of these minerals should help promote the social acceptability of the Project and could significantly reduce acid generation from the tailings. A scoping and market study for the transformation of graphite concentrate into a value-added product will be launched in 2023.





1.20 Recommendations

1.20.1 PROCESS

Based on the work performed and the test results, additional work can be performed to both optimise and de-risk the process design and equipment selection. It is recommended to perform certain work for the next stage of the Project:

- It is recommended to perform dynamic thickening test work on representative tailings material to provide additional confidence in the thickener design and selection.
- Due to the high quantity of graphite in the feed, the use of a jaw crusher as primary crusher should be re-evaluated as part of the next phase. Some reference projects have experienced difficulty with material slipping in the crushing zone of a jaw crusher. The use of a primary impactor, mineral sizer, or ore pusher should be evaluated and potentially tested.
- It is recommended to evaluate direct filtration of flotation concentrates. Several graphite operations have noted difficulty with graphite thickening. Direct filtration of flotation concentrate should be tested to determine the feasibility of elimination of the concentrate thickener.
- Material characteristics for storage and handling of run of mine ore, crushed ore, filter cake, and dried products should be determined. These tests should be carried out at a specialized laboratory to determine parameters for proper bin, pile, hopper, and chute design.
- Case studies of graphite sifting have shown it to be effective, however the sifters used in the FSU have not been tested with Lac Knife graphite. It is recommended to test the sifting characteristics of Lac Knife graphite concentrate. This may require producing new flake graphite depending on remaining quantities from the 2014 pilot plant run.
- Due to the importance of material humidity for dry stack tailings, vendor testing of tailings filtration is recommended prior to purchase of the tailings filters.
- Comprehensive variability flotation testing is recommended to determine the range of expected flake size distribution. This may require resizing of the secondary cleaning circuits to allow for larger fluctuations in flake size distribution.
- Following the variability testing, it is recommended to perform screening testing on a rotary screen to confirm the rotary sizing screen requirement.
- The current design considers modified ball-mills as polishing mills. It is recommended to investigate the use of heavy-duty drum scrubbers as polishing mills during detailed engineering and confirm the feed percent solids for each mill.
- The current design rejects the -400-mesh graphite to tailings as there is limited market for the low purity fine material. An investigation into the possible upgrading of fines during micronization should be investigated and economics of this scenario are recommended to be evaluated in detailed engineering.





- It is recommended to perform deliming trials to confirm desliming requirements during detailed engineering. The current design considers a single stage of cycloning, however; to achieve good separation efficiency, two-stage cycloning may be required.
- It is recommended to perform materials handling trials on the graphite concentrate to confirm the dense phase conveyance requirements.
- Based on the marketing strategy of the graphite concentrate, it is recommended to confirm product bagging requirements.

1.20.2 INFRASTRUCTURE

As the Project progresses to further development stages, a detailed geotechnical field investigation will be required to confirm civil design criteria related to foundations of mills and the process plant as well as for other infrastructure such as administration offices, run-of-mine stockpile, electrical substation and tailings management facility areas.

Investigation to locate gravel pits for suitable construction materials of the various dykes, pads and roads as well as concrete aggregates should be undertaken during the detailed engineering phase to determine the quantities that area available and at what distance they are located from the various facilities.

An analysis should be undertaken to determine the benefits of using geothermal heating systems for the concentrator facility and drying operations. New technologies are continuously being developed to reduce the carbon impact on mining operations of which geothermal heating is one such development.

1.20.3 FILTERED TAILINGS MANAGEMENT FACILITY

Design studies were completed to assess tailings disposal requirements to safely store and manage the concentrator tailings from the Lac Knife Project. Options for management of process and other water flows on site were also assessed, to meet regulatory and international best practice guidelines for the Lac Knife Project's mine life.

A proposed site was identified prior to initiating the design studies for the Filtered Tailings Storage Facility (FTSF). The identified site was assessed against other potential locations within approximately 10 km radius from the mine to confirm that the selected site was the best alternative for the FTSF development. The assessment included a comparison of options for a range of factors including: the distance from the processing plant, environmental considerations (proximity to water bodies and the watershed), social considerations, regulatory and permitting and health and safety of workers and the public.

The FTSF site selected for the project is located about 2.0 km to the southwest of the open pit mine and the plant. The facilities included within the FTSF, and related infrastructure include the tailings





containment impoundment area, a water storage pond and miscellaneous structures such as diversion channels or berms as required. The FTSF and water storage pond are fully lined and include measures for seepage collection and control.

The FTSF will be developed in stages over the operating life of the mine, to provide tailings disposal capacity as required. The operation of the FTSF will also allow for progressive reclamation of the facility, to reduce long-term post-closure costs. The operating plan has been developed to minimize the volume of free water which may be contained within the FTSF, with the water storage pond as the primary water management structure on site. The operational scheme proposes the transfer of free water from the FTSF to the water storage pond to allow for the sedimentation of fine particles and other minerals. Water will then be transferred from the polishing pond to the concentrator processing plant to be used for the mill's process needs or treated and discharged to the environment as required to maintain the site water balance.

1.20.4 Environmental Considerations

Based on work carried out on the Project, the following tasks and studies are recommended:

- Focus must resume the community consultation process initiated with the First Nations, the Caniapiscau MRC and other local stakeholders. These consultations shall provide an update on recent developments related to the Project, answer questions and document the concerns and expectations about the Project from the various stakeholders. The informative website dedicated to the Project (https://www.lacknife.com/) should be updated and upgraded with the latest developments on the Project including FSU highlights and provide an interactive space for communities and stakeholders to ask questions and obtains answers about their various concerns.
- Focus must complete work and studies related to the second set of MELCCFP questions from MELCCFP, including ground water quality modeling and dust dispersion modeling, and update the ESIA study for the Project. Once the ESIA study is approved by MELCCFP, Focus must set a community liaison, information, and consultation strategy before initiating the public information and consultation process.
- Once the filtered tailings storage facility concept is approved by MELCCFP, Focus must initiate a tailings dam break study and evaluate the risks associated with the frequencies and rates of precipitation related to climate changes or the failure of the dam in case of earthquake.
- A noise reduction and vibration study should also be carried out to evaluate the effects of the operations such as blasting, trucking.
- A scoping and market study on transformation of Lac Knife graphite concentrates into value added product is to be initiated as requirement for the Certificate of Authorization.
- A feasibility study related to the cost-benefits of backfilling the pit is to be initiated as requirement for the certificate of authorization.





- A mine closure and rehabilitation plan must be provided to MELCCFP as requirement for the certificate of authorization.
- Upon granting of the Certificate of Authorization, Focus will be allowed to apply fora mining lease from the MERN and start the construction of infrastructure related to the mining project including the tailings, waste rock, overburden, ore, and mining water storage areas.
- Once the mining lease is obtained, a monitoring committee must be organized and maintained until all the work indicated in the rehabilitation and restoration plan has been completed.
- Although not a requirement, it is recommended to undertake a mine-scale geo-environmental characterization study of tailings and waste rocks. Such type of study is more exhaustive than those carried out for the ESIA since it involves characterizing the acidification and metal leaching potentials for several sections of the pit. As the geo-environmental study should be carried out before the beginning of operations, it must help a) to optimize the tailing and waste rock management process and b) reduce the operating costs.
- Geo-environmental study must include kinetic testing such as column tests and field test pads (or barrels) should be carried out on waste rocks and tailings. Waste rocks selected for tests must be those characterised as potentially acid generating (PAG) and tailings should be amended with dolomitic marble interlayers in the columns and field pads to replicate the expected profiles in the FTSF. Results are required to design the water treatment plant.
- CO₂ generation through the sulphuration of dolomite must be evaluated, concomitantly with kinetic testing of tailings for acid generation.
- Since streams, lakes or ponds in the vicinity of the Project are to be considered as potential fish and benthic organism habitats or spawning ground, a monitoring program shall be implemented to monitor quality of groundwater, surface water and sediments in these habitats.
- A weather station shall be installed on the Project site as well as atmospheric sampling stations to monitor dust and atmospheric contaminants. Such stations shall be installed prior to beginning of the construction phase.
- As the mine site is located in the distribution range of woodland caribou, occurrences and displacements of woodland caribous shall be monitored.
- Complete additional drilling to better define the potentially acid generating rock (PAG) and nonacid generating rock (NAG) inside the pit.





1.20.5 OTHER CONSIDERATIONS

Although at this time, Focus is basing the FSU on conventional diesel-powered mining equipment due to the significant upfront capital investment required to convert mobile mining equipment to all electric, the Company is studying the development of a carbon free mining operation using zeroemission vehicles as these become more readily available and competitively priced. Canada offers grants and other incentives to companies developing products using carbon-free technologies and Focus should continue discussions with all government entities offering these.

Although the Report cannot include potential grants and other incentives for the transition to clean technologies in the economic analysis presented in Section 22, there are a few impactful incentives that will be investigated in 2023 and future years. These include the 30% cent refundable tax credit on heavy-duty ZEV used in mining and construction as well as on charging and refuelling infrastructure introduced by the Federal government in its fall 2022 Fall Economic Statement, as well as potential incentives from the Québec Government.

In addition, Canada and the US are looking at the future internal reliance of critical minerals of which natural crystalline graphite is one. The Project, with its high-grade graphite ore body and its potential carbon-free footprint, is a perfect candidate to meet the requirements of government financial assistance programs designed to support the development of North American critical mineral projects including the transformation of mine concentrates into specialized valued-added products for use in high performance renewable energy applications and other hi-tech applications, such as those provided under Québec's Plan for the Development of Critical and Strategic Minerals (2020-2025), the Canadian government's Critical Minerals Infrastructure Fund and under the US Department of National Defence's Defense Production Act (DPA) Title III Investments Program.

Furthermore, laboratory work should proceed on assessing the applicability of the -400 mesh to tailings material for potential used as additives in the steel industry or as powders in industrial applications such as paints, conductive coatings, lubricants, metal casting and polymer composites. This could result in additional sales and a reduction of tailings to the FTSF.

