micon INTERNATIONAL LIMITED | mineral industry consultants

NI 43-101 Technical Report for the 2023 Mineral Resource Estimate for the Mousseau West Graphite Deposit, Mousseau Property, Brunet and Mousseau Townships, Mont-Laurier Area, Québec, Canada

Effective Date: July 29, 2023
Report Date: September 30, 2023

Prepared By:
Antoine R. Yassa, P.Geo.
Yvan Bussières, P.Eng.

NORTHERN GRAPHITE CORPORATION

Northern Graphite Corporation
1000 Innovation Drive, Suite 500,
Ottawa, Ontario, K2K 3E7 Canada

Table of Contents

APPENDICES

List of Tables

List of Figures

1.0 SUMMARY

1.1 GENERAL INTRODUCTION

Northern Graphite Corporation (Northern Graphite) has retained Micon International Limited (Micon) to compile this NI 43-101 Technical Report disclosing Northern Graphite's updated mineral resource estimate for its Mousseau West Graphite Deposit (Mousseau West Deposit), located in the Province of Québec, Canada. The Technical Report has been compiled in accordance with the requirements of Canadian National Instrument (NI) 43-101 Standards of Disclosure for Mineral Projects.

In this report, the term Mousseau West Deposit refers to the area within the exploitation or mining concessions upon which historical exploration has been conducted, while the term Mousseau property generally refers to the entire land package owned by Northern Graphite.

The information in this report was derived from published material, as well as data, professional opinions and unpublished material submitted by the professional staff of Northern Graphite or its consultants, supplemented by the independent observations and analysis of both Micon and the Qualified Persons (QPs). Much of these data came from prior reports for the Mousseau Project (formerly known as the Mousseau West Project), updated with information provided by Northern Graphite, as well as information researched by the QPs.

Neither Micon nor the QPs have or have previously had any material interest in Northern Graphite or related entities. The relationship with Northern Graphite is solely a professional association between the client and the independent consultants. Micon's reports are prepared in return for fees based upon agreed commercial rates and the payment of these fees is in no way contingent on the results of the reports.

This report includes technical information which requires subsequent calculations or estimates to derive sub-totals, totals and weighted averages. Such calculations or estimations inherently involve a degree of rounding and consequently introduce a margin of error. Where these occur, neither Micon nor the QPs consider them to be material.

This report is intended to be used by Northern Graphite subject to the terms and conditions of its agreement with Micon. That agreement permits Northern Graphite to file this report as a Technical Report with the Canadian Securities Administrators (CSA) pursuant to provincial securities legislation or with the Securities and Exchange Commission (SEC) in the United States.

The conclusions and recommendations in this report reflect the QP's best independent judgment in light of the information available to them at the time of writing. The QPs and Micon reserve the right, but will not be obliged, to revise this report and conclusions if additional information becomes known to them subsequent to the date of this report. Use of this report acknowledges acceptance of the foregoing conditions.

1.2 Property Location, Ownership and Description

1.2.1 Location

The Mousseau property is located in the Laurentian Highlands, north of Montreal and east of the town of Mont-Laurier, in the province of Québec.

The claims are located in NTS sheets 31J/10 and 31J/11, straddling Mousseau Township (to the east) and Brunet Township (to the west). The claims are located at latitude 46 37' 00" and Longitude -75 00' 00".

1.2.2 Ownership and Description

On February 23, 2022, Northern Graphite announced that it has entered into an agreement that provided it with the option to acquire a 100% interest in the Mousseau Project and on August 8, 2022, it announced that it intended to exercise that option.

On October 5, 2022, Northern Graphite announced that it had completed the previously announced exercise of its option to acquire a 100% interest in the Mousseau Project.

The Mousseau Project consisted of 12 mineral claims totalling 488.92 hectares (ha) in size at the time of its acquisition.

On March 14, 2023, Northern Graphite announced that the area covered by its Mousseau Project had been increased by an additional 101.65 ha to a total of 590.57 ha, through an automatic procedure under the Mining Act and due to the lapse of certain adjoining claims previously held by an arm's length third party.

1.3 Accessibility, Climate, Physiography, Local Resources and Infrastructure

1.3.1 Accessibility

The Mousseau graphite property is located some 12 km north of the municipality of Sainte-Véronique (now a part of the town of Rivière-Rouge). The property can be accessed via Québec provincial highway 117, followed by the main road that passes through Sainte-Véronique, the Chemin du Tour du Lac Tiberiade, then north of the village, the Chemin du lac McCaskill and, finally, a gravel logging road.

The closest major international airport is located in Montreal which is approximately 2 hours south-east via Québec provincial highways.

1.3.2 Physiography and Climate

The property is located in the Laurentian Highlands. The topography of the area is characterized by a moderate relief with small hills up to 50 m high and a gradual increase in elevation from about 380 m in the south part of the property to more than 520 m at the northern edge of the property. Small lakes and ponds are found on the property, and these generally drain southward towards Lake McCaskill.

Most of the property was originally covered by a mixed forest dominated by deciduous species. Large parcels of this forest were logged many years ago and the area is now covered by an immature growth of maple trees, white and yellow birches and conifers.

The climate in the area is temperate, with well-defined summer and winter seasons. The mean annual temperature in the area is 2.6° Celsius, with a mean temperature of 17.5° Celsius in July and -15° Celsius in January. Mean annual precipitation is 812 mm of rain and 203.9 cm of snow.

1.3.3 Local Resources and Infrastructure

Supplies, services and manpower are readily available in the nearby municipalities of Sainte Véronique and l'Annonciation. Larger supplies for any future operation could be obtained from Montreal and the major mining suppliers located there.

The province of Québec is well known for its mining industry and the personnel necessary for a mining operation should be available.

1.4 HISTORY

The Mont-Laurier area was first mapped at a large scale by Wynne-Edwards in 1966 (GSC, Map 116). A more detailed preliminary geological map of the Ste-Véronique area was produced in 1973, with the final report issued in 1976. This mapping covered the area just south of the Mousseau Project.

The graphitic showing that led to the discovery of the Mousseau East and West deposits was uncovered during road building alongside Oat Lake, probably around 1980-1983. In 1984, the first exploration work was initiated on a four-claim block owned by two prospectors, covering part of the Mousseau property. At that time, geological and EM surveys, followed by Winkie drilling, confirmed the extension of the graphite showing. Grab samples revealed up to 22% graphitic carbon. An outcrop area grading 15% graphite over a width of about 5 m was visually evaluated. Later on, the property was registered under the name of Harkema Industries Ltd.

The next work was reported in 1989, when Ressources Graphicor Inc. (Graphicor) bought the original four claims from Harkema Industries and staked 44 new claims. A 1989 exploration program consisted of 31 kilometres of line cutting and MaxMin and Mise-à-la-masse surveying that located three EM conductors described as probably associated with graphitic horizons. In 1989-90, 127 holes were drilled on the Mousseau East and West (Brunet) deposits with the holes generally ranging from 50 m to 80 m. The drilling delineated both the Mousseau East and the Mousseau West deposits. On the Mousseau West deposit, 57 holes totalling 4,202 m were drilled on an irregular drill spacing varying from 25 m to 40 m.

Following the 1989-1990 drilling program, two bulk samples, one of 15 tonnes on Mousseau East and one of 12 tonnes on Mousseau West, were taken and sent to the Centre de Recherches Minérales (CRM) for recovery and metallurgical testing.

From 1990 to 1993, Graphicor completed a regional helicopter-borne EM survey. Following this survey, five claim blocks were staked within a 15-km radius of Mousseau property. Exploration work, including line cutting, geology, geophysics and diamond drilling, was done. Several economic graphite intersections were obtained, but no follow-up work was performed.

In 1992, resources for the Mousseau East and West deposits were first estimated.

Finally, at the end of 1993, as the price of graphite became increasingly depressed, Graphicor decided to suspend operations. On October 29, 1993, Indresco Canada Inc. (Indresco) bought all the issued and outstanding shares of Graphicor and the company was dissolved. On December 7, 1993, all the Graphicor mining properties were transferred to Indresco. Indresco later decided to keep the property on standby, and it was eventually abandoned.

In 1999, Falconbridge Ltd (Falconbridge) staked a major claim block that included the current property. A helicopter-borne EM-Mag survey was flown over the entire property to search for base metals and gold-bearing structures related to the Ste-Véronique circular intrusive complex. Some minor copper-nickel mineralization was reported in ultramafic rocks along the contact of the intrusive complex. The survey detected the Mousseau graphite zone, as well as a major conductive zone just south of Oat Lake. The western part of this zone was tested by Graphicor with four holes in 1990 and is explained by graphitic marbles. Most of this zone is untested. No further work by Falconbridge was reported.

In 2003, the Mousseau West and East properties were owned by Ressources Aurter Inc. At that time, Aurter produced a compilation report and completed a prospecting program that included geological reconnaissance and grab samples. No samples were analyzed. The report was produced to interest junior exploration companies in optioning the property.

In 2008, the property was staked by the Kaminak Gold Corporation/Breakwater Resources Ltd. joint venture. The target of this project was similar to that of the 1999 Falconbridge project: copper-nickel mineralization in ultramafic horizons. A new EM airborne survey was flown but, at the time the selected area did not cover the graphite occurrences.

Following the acquisition of the property by R.-M. Lacasse in 2011, a compilation Technical Report was produced in May, 2012 and additional drilling was recommended. Following the signing of an Option agreement in December, 2012 with Graniz Mondal Inc. (Graniz), exploration work resumed on the property. Line cutting and HLEM geophysics were completed in January, 2013. Between February and April, Graniz drilled twenty-seven holes totalling 3,300 m on geophysical anomaly E, which corresponds to the Mousseau West graphite deposit defined by Graphicor in 1990.

1.5 GEOLOGICAL SETTING AND MINERALIZATION

1.5.1 Regional Geology

The Mousseau West deposit is located in the Grenville Geological Province, an assemblage of highly metamorphosed and folded rocks, with the last intense metamorphism event estimated at approximately one billion years ago. The Mont-Laurier area is located within a multi-kilometre-wide metasedimentary belt that extends along a general northeast trend from southwestern Québec to the Abitibi region.

The belt is composed of a variety of metasediments such as biotite, garnet, sillimanite and pyroxene paragneisses, along with more siliceous horizons, such as quartzo-feldspathic gneisses or quartzites. Interbedded within these metasedimentary horizons are numerous highly deformed marble horizons,

along with calcosilicated transition zones between the marbles and the clastic units. Orthogneisses of various composition and granitic (wide variety) intrusions are found, along with amphibolite, gabbros and pegmatites.

In the Mont-Laurier area, three main folding events are recognized. The first two resulted from intense east-west compression, while the younger and less intense event produced gentle north-south undulations. These orogenic events created complex multiphase folding and boudinage of the units, particularly the ductile marbles.

1.5.2 Local and Property Geology

The Mousseau property is located some five kilometres north of the seven-kilometre wide, circular intrusive body known as the Ste-Véronique intrusive complex, a syenite/pyroxenite annular intrusion that reconfigured the schistosity locally. As a result, the metasediments on the property generally strike east west and dip 30° to 45° south.

Drilling completed from 1989 to 1992 by Graphicor indicated that the biotite quartzo-feldspathic paragneisses constitutes the dominant host rock of the property. The graphitic horizon is a marble unit interbedded within this clastic biotite paragneiss sequence. On both sides of the graphitic marble, there is a transition zone described in the logs as either quartzite or calc-silicate rock and also containing graphite flakes.

In 2013, a HLEM ground geophysical survey was completed by Graniz on the majority of the property, leaving just the eastern extremity uncovered. The EM anomalies reported appear to demonstrate that the Mousseau West graphite occurrence is a segment of a more extensive zone. The Mousseau West graphitic zone could be a limb of a multiphase fold that continues to the northwest as Graniz's anomaly D. Whether anomaly D connects with the other anomalies A, B and C that were identified is unclear and further work is needed to establish any relationships.

Drilling completed by Graniz in 2013 was concentrated on the main graphite zone corresponding to anomaly E, where Graphicor identified the Mousseau West deposit (also called the Brunet deposit).

The results obtained by Graniz suggest the presence of a synclinal fold, dipping some 45° to the southwest. The calcitic marble unit hosting graphite mineralization would, therefore, be folded so that it forms two separated graphitic marble horizons, the limbs of the fold, near surface. As the limbs dip to the southwest at depth, they join together and form the most important graphitic concentration in the nose of the fold. A calc-silicated unit carrying more or less graphite is found on each side of the graphitic marble horizon as it constitutes a transitional zone between a detritic domain (the gneisses) and the chemical domain (the marbles).

The stratigraphy of the deposit includes a sequence of quartzo-feldspathic biotite gneisses (found at surface) followed by calc-silicated rocks and then calcitic marbles carrying graphite. Very limited drilling was completed beyond the deeper graphitic intersections so it is not possible to confirm whether the biotite gneiss returns, as would be expected. Most of the time, the holes ended into a calc-silicated rock unit that is usually representative of the transition zone.

Quaternary deposits are mostly composed of sand and gravel, with thicker deposits in the valleys and thinner coverage on the topographic highs. The Mousseau West deposit corresponds to an area of thin overburden.

1.5.3 Mineralization

Graphite is associated with carbonated units, such as calcitic marbles and calc-silicated rocks. Both carry graphite flakes, but the calcitic marbles constitute the main host rock. Calc-silicated rocks are a transition between truly clastic deposition (gneisses) and truly chemical deposition (marbles). They tend to be thinner and more erratic than the marbles.

The mineralization of the Mousseau West graphite deposit is typically a grey to white calcitic marble containing graphite as disseminated fine to coarse flakes a few millimetres in diameter. At the Mousseau West deposit, most of the graphitic marbles show a particular nodular texture. Graphite and some silicated minerals are grouped into rounded agglomerates called nodules, separated from each other by the calcitic matrix. Two types of nodular textures were distinguished: the micro nodular, with nodules around 3 mm in diameter and the nodular (the most frequent), with nodules ranging from 0.5 cm to 4.0 cm. This texture might be indicative of a low strain metamorphic environment.

Nodules form between 10% and 40% of the graphitic horizon. Total graphite in the mineralized marbles ranges between 2% to 15%, with an average content of around 8%. Locally, some mineralized horizons may reach 15% to 20% graphite, but these are not representative of the mineralization.

Drilling completed to date indicates a tendency to get the better grades (6% to 10% Gr) in the upper portion of the mineralized marbles and lower grades (2% to 5% Gr) in the deeper portion.

Iron sulphides are almost always present, with pyrrhotite more frequent than pyrite, both totalling around 3% to 5% of the rock. Some rich graphite sections with 20% Gr were found to contain up to 10% sulphides.

Thin decametric layers of calc-silicated rocks, quartz-feldspathic gneisses or pegmatitic material are interlayered locally in the graphitic marbles.

The calc-silicated rocks on each side of the graphitic marbles, the transition zone, is composed mostly of quartz, diopside and calcite, with accessories minerals. These can carry from trace to 15% graphite. These may form part of the graphite resource locally.

1.6 EXPLORATION PROGRAMS

1.6.1 Exploration Programs

1.6.1.1 Graniz Exploration Program

Graniz signed the option agreement for the Mousseau property on December 12, 2012 and conducted an exploration program on the property in 2013.

In January, 2013, a new grid was established totalling 37.9 km of grid lines, with the starting point for the grid and the base line orientation the same as the original 1990 Graphicor grid lines.

In late January, a multi-frequencies HLEM ground geophysical survey (35.6 km) was carried out by Géophysique TMC inc. (Géophysique TMC) on most of the property.

There are no detailed geological maps or sections in the available Graphicor documents. The knowledge of the geology is mostly supported by geophysical surveys that trace the conductive zone on the property (and its continuity to the east towards Mousseau East, as this entire area was part of the 1990 Graphicor property). In GM 52017, Graphicor states that the schistosity on the property strikes east-southeast and dips 30° to 45° to the south.

In 2013, a HLEM ground geophysical survey was completed by Graniz on the majority of the property, leaving just the eastern extremity uncovered. The EM anomalies reported appear to demonstrate that the Mousseau West graphite occurrence is a segment of a more extensive zone. The Mousseau West graphitic zone could be a limb of a multiphase fold that continues to the northwest, but it is unclear whether the anomalies encountered in the survey can be connected together. Further work is needed to establish if there are any relationships between the anomalies identified.

Drilling was carried out on the property between January 25 and March 2, 2013 and was concentrated on the main graphite zone corresponding to anomaly E, where Graphicor identified the Mousseau West deposit (also called the Brunet deposit).

1.6.1.2 Northern Graphite Exploration Program

Northern Graphite has not conducted any exploration programs on the Mousseau Project. Northern Graphite has been undertaking a reinterpretation and compilation of the data, and this has resulted in an updated mineral resource estimate.

1.6.2 Drilling Programs

1.6.2.1 Graniz Drilling Program

Graniz drilled 27 holes during the winter of 2013 for a total of 3,300 m.

The purpose of the 2013 winter drill program was to delineate the resources of a graphite deposit drilled by Graphicor in 1989 and 1990. At that time, Graphicor drilled 57 holes, generally spaced between 25 m and 40 m apart. The Graniz drill program was planned and spaced in order to achieve final 25-m grid spacing, including the Graphicor holes. Unfortunately, Graniz was unable to locate the Graphicor holes in the field during the drilling program due to snow coverage and, as a result, the 2013 drilling pattern was not optimal. Many of the 2013 drill holes duplicated the 1990 drill holes. However, the less-than-optimal drilling program meant that Graniz had numerous 2013 graphite intercepts to compare to the 1990 intercepts, and this allowed Graniz to validate the 1990 drill data.

The winter drilling program intercepted 67 graphite zones with significant intercepts. The 2013 Graniz drilling program was successful in two aspects, in that it demonstrated that there are potentially a number of economic intersections within the graphite lenses, and that Graniz was able to demonstrate

that the historic Graphicor information was of sufficient quality that it can be used as the basis of further studies.

1.6.2.2 Northern Graphite Drilling Programs

Northern Graphite has not conducted any drilling programs on the Mousseau Project. Northern Graphite will most likely conduct a drilling program once it completes its assessment of the property.

1.7 METALLURGICAL TESTWORK

Scoping level metallurgical work was carried out on a composite that was generated from the available historic Mousseau drill core.

The composite that was generated comprised 68 of individual drill core intervals to produce a total mass of approximately 150 kg. To ensure a good representation of the mineral resource, the Mousseau West mineralization zone was split into four quadrants and 35 kg to 40 kg of material were extracted from each quadrant. Further, the drill core intervals were selected to include a range of grades observed in the resource with an average grade of approximately 8.00% Gr. A total of 68 drill core intervals from 9 drill holes were selected to generate the composite for scoping level testing.

1.7.1 Sample Preparation and Characterization

The entire composite was crushed to -6 mesh, homogenized, and split into two-kilogram test charges. A representative head sample was extracted and submitted for chemical analysis.

Following analysis, the large difference between the graphitic carbon grade of 7.73% Gr and total carbon grade of 11.9% $C_{(TOTAL)}$ suggests the presence of significant carbonate carbon. This will necessitate the use of the more complex graphitic carbon analysis on the high mass tailings streams to provide acceptable mass balance results.

The results of an ICP and a whole rock analysis noted that the most abundant elements in the Mousseau West mineralization are silicon, calcium, aluminum and iron. Despite the higher sulphur grade of 3.02% S, the mineralization may contain enough calcium oxides and/or carbonates to provide sufficient neutralizing potential to render the tailings non-acid generating.

1.7.2 Rougher Flotation

A single rougher flotation test MW3, was carried out to establish the rougher flotation kinetics and to perform a size fraction analysis on the rougher concentrate. The test charge was ground to the LDI plant feed size of P80 approximately 280 microns and then subjected to rougher flotation. The flotation time replicated the LDI laboratory procedure, but reagent dosages were adjusted based on observations made during the test.

The overall graphite recovery into the rougher concentrate of 97.3% was high and in line with similar projects. The combined rougher concentrate grade of 26.3% $C_{(TOTAL)}$ was relatively low, especially when considering the head grade of almost 8.0% Gr.

The combined rougher concentrate was subjected to a size fraction analysis (SFA). While the concentrate yielded a high mass recovery of 71.7% into the +80 mesh size fractions, the grades of all size fractions were very low, ranging between 18.1% $C_{(TOTAL)}$ for the -32/+48 mesh size fraction and 45.6% $C_{(TOTAL)}$ for the -100/+200 mesh size fraction.

The results of the size-by-size analysis of the rougher concentrate is relevant, since the LDI flowsheet incorporates classification of the rougher concentrate at 500 microns and 300 microns, followed by spiral separation of the screen overflow to recover a final concentrate. Given the low grades of the +32 mesh and +48 mesh size fractions, this strategy will likely not be successful for the Mousseau West mineralization.

1.7.3 Primary Cleaner Flotation

Two primary cleaner flotation tests were carried out to determine the efficiency of conventional polishing mills. The two tests were identical, except for the polishing grind time of the rougher concentrate. Test MW4 employed 20 minutes of polishing, followed by three stages of cleaning, while test MW5 was conducted with 40 minutes of polishing.

Test MW4, with the shorter polishing time, produced a combined concentrate grade of 71.3% $C_{(TOTAL)}$ at 89.3% open circuit carbon recovery. The grade improved significantly to 85.2% $C_{(TOTAL)}$ in test MW5, with twice the polishing time. The carbon recovery remained almost identical at 89.6%.

The third cleaner concentrate of both tests was submitted for an SFA.

As the polishing time was increased from 20 to 40 minutes, the mass recovery into all +325 mesh size fractions decreased slightly. However, the mass reduction was less than 1% in all size fractions, except for the -100/+150 mesh product. As suggested by the combined concentrate grades, the total carbon grades of each size fraction increased at the longer polishing times. The grade gains ranged from as little as 0.2% for the -325-mesh product, to as high as 25.6% for the -100/+150 mesh size fraction.

Overall, the polishing mill followed by cleaner flotation proved a suitable approach to upgrade a low-grade rougher concentrate to an intermediate concentrate that only requires limited secondary processing.

1.7.4 Secondary Cleaner Flotation

Two secondary cleaner flotation tests were conducted to demonstrate the flotation performance of the Mousseau West mineralization to LDI personnel that visited the SGS Lakefield site. These tests were carried out before the rougher and primary cleaner tests. While this is typically not the chosen approach in process development programs, the tests were conducted for demonstration purposes. The flowsheet and conditions of the two tests were established, based on experience with similar projects and observations made during the tests. Two different flowsheet philosophies were evaluated.

The first test, MW1, consisted of flash/rougher, primary cleaning, classification at 80 mesh and then separate stirred media mill grinding and cleaning of the two size fractions.

The second test, MW2, employed the identical flowsheet up to the primary cleaning stage, but then continued with upgrading the intermediate concentrate in two additional stages of grinding and cleaning without classification. The second mill stage was conducted with a polishing mill and the third milling step with a stirred media mill.

The split flowsheet produced a combined concentrate grade of 95.7% $C_{(TOTAL)}$ at an open circuit graphite recovery of 85.8%. In contrast, the sequential flowsheet resulted in a combined concentrate grade of 98.6% $C_{(TOTAL)}$ at 93.8% open circuit graphite recovery. Since the grade target is typically 95-96% $C_{(TOTAL)}$, the 7th cleaner concentrate would be the most suitable product for most graphite applications. This product contained 94.5% of the graphite at a grade of 96.4% $C_{(TOTAL)}$.

Since open circuit flotation tests are treating the intermediate tailings as final tailings for mass balance calculations, the tests generally understate expected graphite recovery. Typically, 50% of the carbon units that report to intermediate tailings that are recycled during closed circuit operation will report to the final concentrate. Assuming the 7th cleaner concentrate is the final product, the 6th, 5th, 3rd, and 2nd cleaner tailings are circulated. These four products contained 1.4% of the total graphite. If 50% of these graphite units report to the 7th cleaner concentrate, the projected overall closed-circuit recovery of the 7th cleaner concentrate would be 95.2% at a slightly reduced total carbon grade of 96.0% $C_{(TOTAL)}$ to account for some of the less liberated flakes reporting to the 7th cleaner concentrate.

The final concentrates of the two secondary cleaner tests were submitted for a size fraction analysis. The mass recovery into the size fractions was consistent between the two tests. The split flowsheet produced a slightly higher percentage of +32 mesh and -32/+48 mesh concentrate mass, but the difference was 1.3% or less.

The sequential flowsheet produced consistently higher total carbon grades in all seven size fractions. Even the -200-mesh product still graded 97.1% $C_{(TOTAL)}$ and the highest value of 98.7% $C_{(TOTAL)}$ was achieved for the -150/+200 mesh product.

Based on the overall mass balance and the size fraction analysis, the sequential flowsheet appears to be more suitable for the Mousseau West mineralization. This conclusion is based on a very limited number of tests and proper flowsheet development will have to be conducted. Nevertheless, the ability to produce a high-grade concentrate at a high graphite recovery and good flake size distribution with very few tests suggests a good metallurgical response of the Mousseau West mineralization.

1.8 MINERAL RESOURCE ESTIMATE

The mineral resource in this report was estimated in conformity with the Canadian Institute of Mining, Metallurgy and Petroleum (“CIM”) “Estimation of Mineral Resource and Mineral Reserves Best Practice Guidelines” (2019) and reported using the definitions set out in the 2014 CIM Definition Standards on Mineral Resources and Mineral Reserves. Mineral resources that are not converted to mineral reserves do not have demonstrated economic viability. Confidence in the estimate of inferred mineral resource is insufficient to allow the meaningful application of technical and economic parameters or to enable an evaluation of economic viability worthy of public disclosure. 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 resource estimate reported herein was prepared for a potential open pit operation using 71 holes out of a total of 85 holes in the database provided as Excel format files. Industry standard validation checks such as inconsistencies in naming convention, duplicate entries, short missing intervals, overlaps, length or distance values less than or equal to zero and inappropriate coordinate locations were all completed on the supplied database. Historical assays and 2013 drill program assay results were previously verified by one of the QPs during the preparation of the 2013 NI-43-101 Technical Report.

Four mineralized domain shells were generated from successive polylines on sections every 25 m, using a preliminary cut-off of 4% graphite. Some of the domains were clipped to an overburden surface interpreted from the geological descriptions and a topographic surface from Lidar data.

The Mousseau West deposit block model was constructed using GEOVIA GEMS™ V6.8.4 modelling software, with 5 m x 5 m x 5 m blocks. The block model consists of separate model attributes for estimated graphite (Gr), rock type (mineralization domains), volume percent, bulk density and classification.

Graphite grade was interpolated into the blocks using Inverse Square Distance (ID^2) interpolation. Nearest Neighbour was run for validation purposes. Multiple passes were used for the grade interpolation to progressively capture sample points, avoid over-smoothing and determine the classifications.

The mineral resource estimate for the Mousseau West deposit was obtained by applying a cut-off grade to the block models and reporting the resulting tonnes and grades for the potentially mineable areas. The cut-off grade of the open pit mineral resource estimate is 4.45% Gr.

The mineral resource estimate for the Mousseau West deposit, with an effective date of July 29, 2023, is presented in Table 1.1.

Table 1.1
Mineral Resource Estimate for the Mousseau West Deposit, with an Effective Date of July 29, 2023

Category	Volume (m^3)	Specific Gravity (t/m^3)	Tonnes	Graphite (%)	Graphite (t)
Measured	283,605	2.85	808,275	7.612	61,525
Indicated	706,234	2.85	2,012,766	8.026	161,554
Measured and indicated	**989,839**	**2.85**	**2,821,041**	**7.908**	**223,079**
Inferred	116,451	2.85	331,884	9.254	30,714

Notes:

1. *The parameters used to estimate open pit cut-off grade for the mineral resources are as follows: graphite price of US$1,500/t, exchange rate of US$1.00=CAD$0.78; estimated costs including mining ($2.50), process ($50/t), haulage ($22/t) and G&A ($5/t), process recovery of 90% and a pit slope of 50°. Mineralized material that is not included within the open pit shell is not part of the mineral resource estimate.*
2. *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, socio-political, marketing, or other relevant issues, although the QP is not aware of any such issues.*

3. *The quantity and grade of reported Inferred Resources in this estimation are uncertain in nature and there has been insufficient exploration to define these Inferred resources as an Indicated or Measured mineral resource and it is uncertain if further exploration will result in upgrading the Inferred Resources to an Indicated or Measured mineral resource category.*
4. *The mineral resources were estimated using the Canadian Institute of Mining, Metallurgy and Petroleum (CIM), CIM Standards on Mineral Resources and Reserves, Definitions and Guidelines.*
5. *Values in the table may differ due to rounding.*

1.9 CONCLUSIONS AND RECOMMENDATIONS

1.9.1 General Discussion

Northern Graphite believes that the Mousseau Project has the potential to be developed into a secondary feed source for its processing facilities at the Lac des Iles mine. Further exploration, metallurgical and economic studies will most likely be conducted by Northern Graphite as it continues to assess the full extent of the graphite mineralization located at the Mousseau Project.

1.9.2 Conclusions

1.9.2.1 Mineral Resource Estimate Conclusions

The QPs believe that the mineral resource estimate is robust enough that it can be used as the basis of further economic studies, while Northern Graphite continues to further define the nature and extent of the mineralization at the Mousseau West deposit through further exploration programs.

1.9.2.2 Risks and Opportunities

Table 1.2 identifies significant internal risks, potential impacts and possible risk mitigation measures that could affect the economic outcome of the Mousseau Project. This excludes the external risks that apply to all mining projects (e.g., changes in metal prices, exchange rates, availability of investment capital, change in government regulations, etc.). Significant opportunities that could improve the economics, timing and permitting of the project are also identified in this table. Further information and evaluation are required before these opportunities can be included in the project economics.

Table 1.2
Risks and Opportunities at the Mousseau Project

Risk	Potential Impact	Possible Risk Mitigation
Mineral Resource Continuity.	Widely spaced drilling in some areas.	Continue infill drilling to upgrade a larger proportion of the mineral inventory to indicated and measured resources.
Proximity to the communities.	Possibility that the local population or indigenous communities do not accept the mining Project.	Maintain a pro-active and transparent strategy to identify all stakeholders and maintain a communication plan. The main stakeholders have been identified, and their needs/concerns understood. Continue to organize information sessions, publish information on the mining project, and meet with host communities.
Difficulty in attracting experienced professionals.	The ability to attract and retain competent, experienced professionals is a key success factor.	The early search for professionals will help identify and attract critical people. Alternatives to traditional residential staff may need to be considered.
Opportunities	**Explanation**	**Potential Benefit**
Surface definition diamond drilling	Potential to upgrade inferred resources to the indicated category	Adding indicated resources increases the economic value of the mining Project.
Surface exploration drilling	Potential to identify additional inferred resources or additional mineralized zones	Adding inferred resources or additional mineralized zones increases the economic value of the mining Project.
Compilation of assessment work on the newly acquired claims	Some previous resource was identified to the East, although not compliant with NI 43-101 and CIM definitions	New added resources can be added once the previous work is evaluated and possibly confirmed with field work and twin drilling

1.9.3 Planned Expenditures and Budget

Northern Graphite plans to spend and estimated $3.1 million to 5.1 million during the next phase of Project development. The expenditures are primarily to conduct further exploration, metallurgical testwork and economic studies at the Mousseau Project.

The drilling will consist of between 30,000 m and 40,000 m of drilling across all potential targets. Infill drilling in areas of high potential will be conducted as part of this program. Metallurgical testwork will be conducted to determine the ratios of the flake size from small to extra large and to determine the variability of the mineralization within the different zones (lenses), with testwork to determine the requirements for processing Mousseau mineralization at Northern Graphite's Lac des Isles plant.

The QPs have reviewed Northern Graphite's proposed budget on the Mousseau property and recommend that Northern Graphite conducts the budgeted work as proposed, subject to funding and any other matters which may cause the proposed work program to be altered in the normal course of its business activities or alterations which may affect the work program.

1.9.4 Recommendations

Based on the results of the 2023 mineral resource estimate, the QPs recommend that Northern Graphite continues to outline an exploration program comprised of drilling (infill and exploration), geological mapping and sampling, to test the extents of mineralization within the known mineral trend. The exploration program should attempt to identify new targets, as well as potentially expanding the current deposits. Continued geological modelling and structural interpretation should also be a part of this program.

The QPs agree with the general direction of Northern Graphite's proposed work programs for the Project. Based upon the results of the exploration programs so far, the QPs make the following additional general recommendations for the Mousseau Project:

1. The QPs recommend that Northern Graphite continues to conduct exploration and drilling campaigns on the Mousseau Project to determine the full extent of the mineralization on the property.
2. The QPs recommend that Northern Graphite conducts further metallurgical testwork, not only to determine the flake size composition and variability of the mineralized zone but also to determine how amenable the graphite is to spheroidization, as this process would add value to the graphite beyond just creating a graphitic concentrate.
3. The QPs recommend that Northern Graphite continue to conduct further economic studies on the mineralization contained on the Mousseau West deposit, with the goal of being able to produce either a preliminary economic study (PEA) or, if applicable, a Pre-Feasibility study.
4. The QPs recommend that Northern Graphite engage in early and continual discussions with the local citizens, township and any indigenous communities, to bring them into the discussions regarding developing the Project, as these discussions may assist in helping facilitate the development of the Project in the future and allay any fears the community may have with regard to the Project.
5. The QPs recommend adding more density measurements in mineralized zones as well as in the waste rock in order to allow a better determination of the tonnage to be mined.

2.0 INTRODUCTION

2.1 TERMS OF REFERENCE

Northern Graphite Corporation (Northern Graphite) has retained Micon International Limited (Micon) to compile this NI 43-101 Technical Report disclosing Northern Graphite's updated mineral resource estimate for its Mousseau West Graphite Deposit (Mousseau West Deposit) located in the Province of Québec, Canada. The Technical Report has been compiled in accordance with the requirements of Canadian National Instrument (NI) 43-101 Standards of Disclosure for Mineral Projects.

In this report, the term Mousseau West Deposit refers to the area within the exploitation or mining concessions upon which historical exploration has been conducted, while the term Mousseau property generally refers to the entire land package owned by Northern Graphite.

The information in this report was derived from published material, as well as data, professional opinions and unpublished material submitted by the professional staff of Northern Graphite or its consultants, supplemented by independent observations and analysis of both Micon and the Qualified Persons (QPs). Much of these data came from prior reports for the Mousseau Project (formerly the Mousseau West Project) updated with information provided by Northern Graphite, as well as information researched by the QPs.

Neither Micon nor the other QPs have or have previously had any material interest in Northern Graphite or related entities. The relationship with Northern Graphite is solely a professional association between the client and the independent consultants. Micon's reports are prepared in return for fees based upon agreed commercial rates and the payment of these fees is in no way contingent on the results of the reports.

This report includes technical information which requires subsequent calculations or estimates to derive sub-totals, totals and weighted averages. Such calculations or estimations inherently involve a degree of rounding and consequently introduce a margin of error. Where these occur, neither Micon nor the QPs consider them to be material.

This report is intended to be used by Northern Graphite subject to the terms and conditions of its agreement with Micon. That agreement permits Northern Graphite to file this report as a Technical Report with the Canadian Securities Administrators (CSA) pursuant to provincial securities legislation or with the Securities and Exchange Commission (SEC) in the United States. Except for the purposes legislated under provincial securities laws, any other use of this report, by any third party, is at that party's sole risk.

The conclusions and recommendations in this report reflect the QPs best independent judgment in light of the information available to them at the time of writing. The QPs and Micon reserve the right, but will not be obliged, to revise this report and conclusions if additional information becomes known to them subsequent to the date of this report. Use of this report acknowledges acceptance of the foregoing conditions.

2.2 Qualified Persons, Site Visit and Areas of Responsibility

The authors and QPs of this report are:

- Antoine R. Yassa, Independent Consulting Geologist
- Yvan Bussières, Independent Consulting Engineer (Geology and Geophysics)

Table 2.1 summarizes the details for the QPs, their areas of responsibility and dates of site visits.

Table 2.1
Qualified Persons, Areas of Responsibility and Site Visits

Qualified Person	Title and Company	Area of Responsibility	Site Visit
Antoine R. Yassa	Independent Consulting Geologist	Sections 1.8, 1.9.4, 14, 25.2, 25.3 and 26.2	None
Yvan Bussières	Independent Consulting Engineer in Geologist and Geophysics	Sections 1.1 to 1.7, 1.9 (except 1.9.4), 2 to 11, 12, 13, 23, 24, 25 (except 25.2), 26 (except 26.2) and 28.	August 31, 2023
Excluded Sections	Sections not applicable to report	Sections 15 to 22	---

2.3 Units and Abbreviations

All currency amounts are stated in Canadian dollars (Cdn$), unless otherwise stated. However, mineral prices will be stated in United States dollars as this is the common worldwide practice. Quantities are generally stated in metric units, the standard Canadian and international practice, including metric tonnes (t) and kilograms (kg) for mass, kilometres (km) or metres (m) for distance, hectares (ha) for area, grams (g) and grams per metric tonne (g/t) for gold and silver grades (g/t Au, g/t Ag). Wherever applicable, US units of measure have been converted to Système International d'Unités (SI) units for reporting consistency, but the US units may be stated in brackets after the metric units. Precious and base metal grades may be expressed in parts per million (ppm) or parts per billion (ppb) and their quantities may also be reported in troy ounces (ounces, oz) for precious metals and in pounds (lbs) for base metals, a common practice in the mining industry.

Table 2.2
Units and Abbreviations

Name	Abbreviation
Canadian Institute of Mining, Metallurgy and Petroleum	CIM
Canadian National Instrument 43-101	NI 43-101
Canadian Standards Association	CSA
Carbon	C
Centimetre(s)	cm
Centre de Recherches Minérales	CRM
Complex resistivity	CRIP
Controlled-Source Audio-Frequency Magnetotellurics	CSAMT
Cubic feet per minute	cfm

Name	Abbreviation
Day	d
Degree(s)	°
Degrees Celsius	°C
Digital elevation model	DEM
Dollar(s), Canadian and US	$, Cdn $ and US$
Electromagnetic	EM
Gram(s)	g
Grams per metric tonne	g/t
Graniz Mondal Inc.	Graniz
Graphite	Gr
Greater than	>
Hectare(s)	ha
Indresco Canada Inc.	Indresco
Inductively coupled plasma mass spectrometry	ICP-MS
Kilogram(s)	kg
Kilometre(s)	km
Less than	<
Litre(s)	l
Metre(s)	m
Metres above sea level	masl
Micon International Limited	Micon
Million tonnes	Mt
Million years	Ma
Million metric tonnes per year	Mt/y
Milligram(s)	mg
Millimetre(s)	mm
Ministère des Ressources Naturelles du Québec	MRNFQ
North American Datum	NAD
North American Free Trade Agreement	NAFTA
Not available/applicable	n.a.
Parts per billion	ppb
Parts per million	ppm
Percent(age)	%
Quality Assurance/Quality Control	QA/QC
Ressources Graphicor Inc.	Graphicor
Second	s
Securities and Exchange Commission	SEC
Specific gravity	SG
Sulphur	S
System for Electronic Document Analysis and Retrieval	SEDAR
Système International d'Unités	SI
Three-dimension	3D
Tonne (metric)	t
Tonnes (metric) per day	t/d
Universal Transverse Mercator	UTM
Year	y

2.4 SOURCES OF INFORMATION

The QP's review of the Mousseau Project was based on published material researched by the QPs, as well as data, professional opinions and unpublished material submitted by the professional staff of Northern Graphite or its consultants. Much of these data came from historical reports provided by Northern Graphite.

The descriptions of geology, mineralization and exploration used in this report have been taken from reports prepared by various organizations and companies or their contracted consultants, as well as from various government and academic publications. The conclusions of this report use, in part, data available in published and unpublished reports supplied by the companies which have conducted exploration on the property, and information supplied by Northern Graphite. The information provided to Northern Graphite was supplied by reputable companies and the QPs have no reason to doubt its validity. The QPs have used the information where it has been verified through their own review and discussions.

Some of the figures and tables for this report were reproduced or derived from reports on the property written by various individuals and/or supplied to the QPs by Northern Graphite. In cases where photographs, figures or tables were supplied by other individuals or Northern Graphite, the source is referenced below that item. Figures or tables generated by the report QPs are generally unreferenced.

2.4.1 Previous Historical Technical Reports and Other Reports

A publicly available Technical Report was previously published on the Mousseau Project:

- Tremblay, Alain, and Bussières, Yvan, (2013), Technical Report (NI 43-101 compliant) and Resources Estimate on the Mousseau West Graphite Property, (Brunet and Mousseau Townships) Mont-Laurier area, Province of Québec, for Graniz, 92 p.

The detailed information and reference sources, which were used in the compilation of this Technical Report are identified in Section 28.0.

3.0 RELIANCE ON OTHER EXPERTS

In this report, discussions regarding royalties, permitting, taxation, and environmental matters are based on material provided by Northern Graphite. Micon and the QPs are not qualified to comment on such matters and have relied on the representations and documentation provided by Northern Graphite for such discussions.

All data used in this report were originally provided by Northern Graphite or its consultants. Micon and the QPs have reviewed and analyzed these data and have drawn their own conclusions therefrom, augmented by the QP's direct field examinations. All of the documentation supplied by Northern Graphite and references used by the QPs are noted in Section 28.0 of this report.

Neither Micon nor the QPs offer a legal opinion as to the validity of the title to the Mousseau mineral concessions claimed by Northern Graphite, as neither Micon nor the QPs are qualified to comment on such matters.

4.0 PROPERTY DESCRIPTION AND LOCATION

4.1 PROPERTY DESCRIPTION AND LOCATION

The Mousseau property is located in the Laurentian Highlands, north of Montreal and east of the town of Mont-Laurier, in the province of Québec (Figure 4.1).

The claims are located in NTS sheets 31J/10 and 31J/11, straddling Mousseau Township (to the east) and Brunet Township (to the west). The claims are located at latitude 46 37' 00" and Longitude -75 00' 00".

Figure 4.1
Location Map for the Mousseau Project

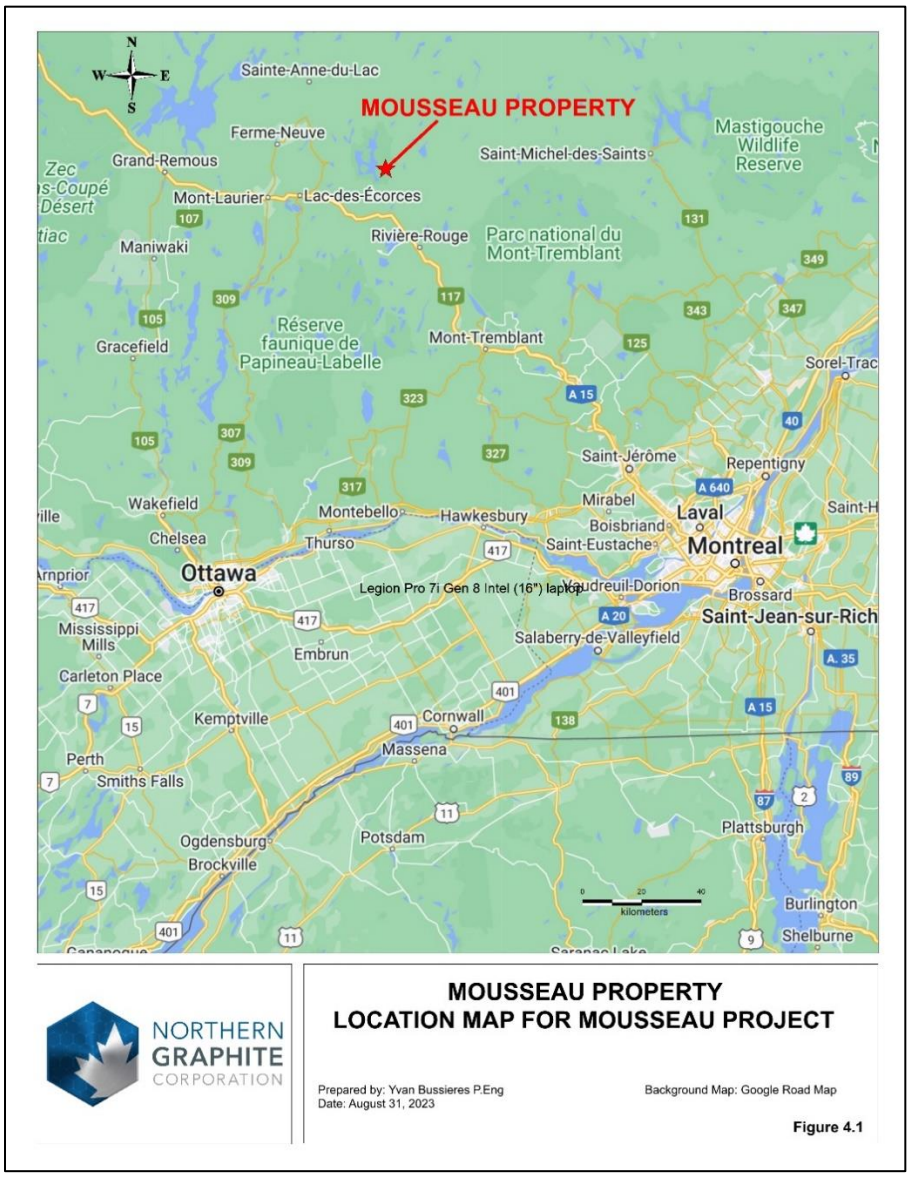


Figure supplied by Northern Graphite.

4.2 LAND TENURE, PROPERTY AGREEMENTS, MINERAL RIGHTS AND OWNERSHIP,

On February 23, 2022, Northern Graphite announced that it has entered into an agreement that provided it with the option to acquire a 100% interest in the Mousseau Project, subject to the owners retaining a 2% net smelter royalty (NSR).

Pursuant to the Option Agreement, Northern Graphite agreed to pay $50,000 for a six-month exclusive right to conduct due diligence on the property. If Northern Graphite elected to exercise its option, it could acquire Mousseau through the payment of $500,000 in cash and the issuance of 900,000 common shares of Northern Graphite, subject to the acceptance of the TSX Venture Exchange (TSX-V). Northern Graphite would also have the right to acquire the 2% NSR from the owners at any time upon the payment of $1 million.

On August 8, 2022, Northern Graphite announced that it intended to exercise the option to acquire a 100% interest in the Mousseau Project.

On October 5, 2022, Northern Graphite announced that it had completed the previously announced exercise of its option to acquire a 100% interest in the Mousseau Project through the payment of $500,000 in cash and the issuance of 900,000 common shares of Northern Graphite to the owners of the property.

At that time, the Mousseau Project consisted of 12 mineral claims totalling 488.92 hectares (ha) in size.

On March 14, 2023, Northern Graphite announced that the area covered by its Mousseau Project had been increased by an additional 101.65 ha to a total of 590.57 ha by the Québec Ministère des Ressources naturelles et des Forêts (MRNFQ), through an automatic procedure under the Mining Act (Québec) due to the lapse of certain adjoining claims previously held by an arm's length third party. In connection with the increase in the area covered by Northern Graphite's claims, it paid $50,000 and issued 100,000 common shares of Northern Graphite to the previous holder of the adjoining claims, in order to settle litigation proceedings challenging the Minister's increase in the area of Northern Graphite's claims. The transaction was an arm's-length transaction for purposes of the policies of the TSX-V and was completed as an Expedited Acquisition pursuant to TSX-V Policy 5.3. The common shares issued to the previous holder of the claims in connection with the transaction were subject to a statutory four-month hold period which expired on July 15, 2023.

After the 2023 increase in size the Mousseau Project the claims now include part of the Mousseau East deposit which is not the subject of this Technical Report.

The current 12 mineral claims which are part of the Mousseau Project are shown in Figure 4.2 and summarized in Table 4.1.

The mineral claims have not been surveyed and the claim boundaries are based on the government maps used for claim designation.

Figure 4.2
Mineral Claims Comprising the Mousseau Project

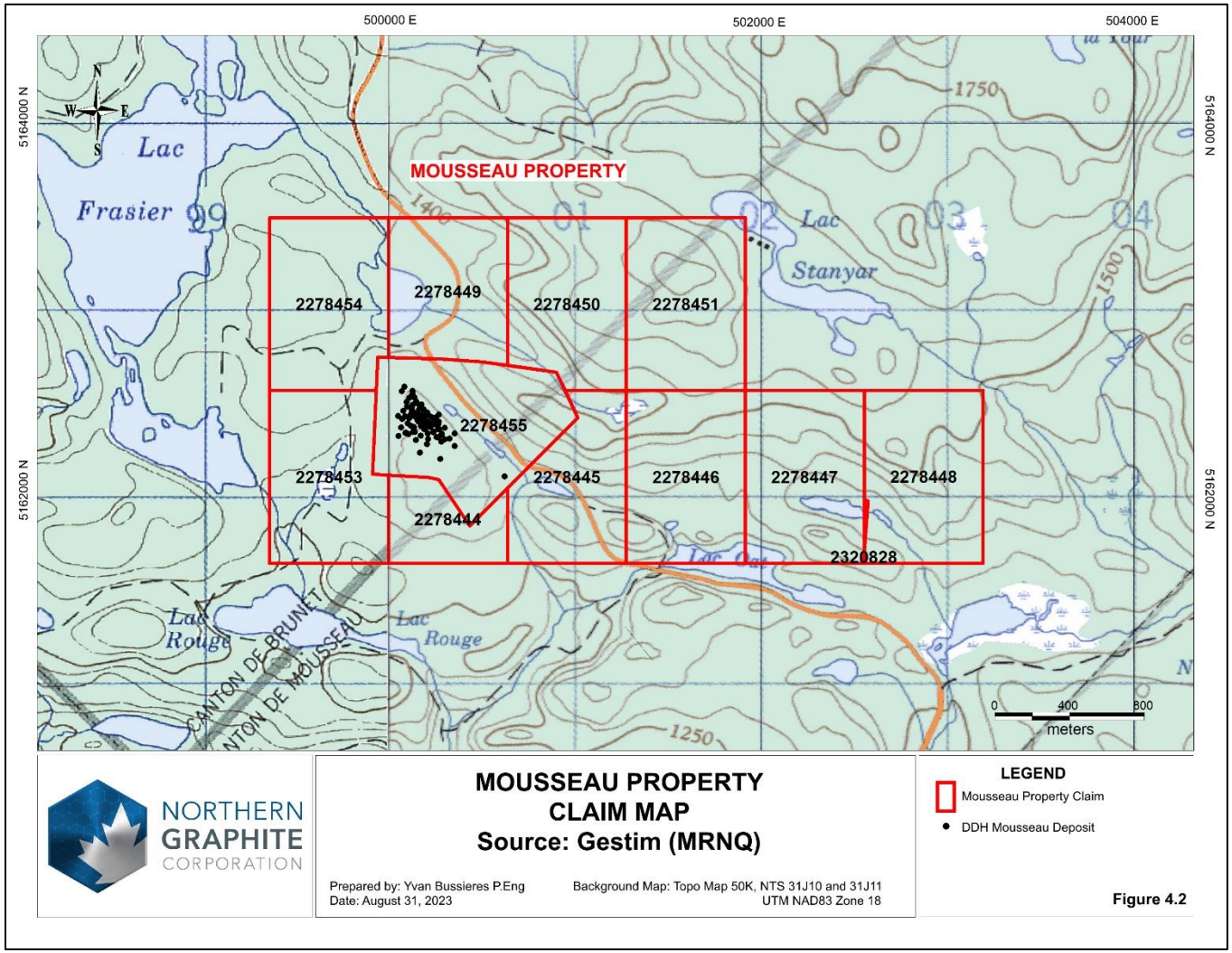


Figure supplied by Northern Graphite.

Table 4.1
Summary of the Mineral Claim Information Comprising the Mousseau Project

NTS Sheet	Title Number	Expiry Date	Area (Ha)	Accrued Work	Required Work	Mining Duties	Claim Owner	Constraint
31J10	2278444	March 16, 2024	24.01	0	750	37.5	Northern Graphite Corp. (101856) 100%	
31J10	2278445	March 16, 2024	46.98	612.59	750	73.25	Northern Graphite Corp. (101856) 100%	
31J10	2278446	March 16, 2024	59.09	0	1,800	73.25	Northern Graphite Corp. (101856) 100%	
31J10	2278447	March 16, 2024	59.07	0	1,800	73.25	Northern Graphite Corp. (101856) 100%	
31J10	2278448	March 16, 2024	58.80	0	1,800	73.25	Northern Graphite Corp. (101856) 100%	Affected by: Teaching and Research Forest
31J10	2278449	March 16, 2024	48.69	0	1,800	73.25	Northern Graphite Corp. (101856) 100%	
31J10	2278450	March 16, 2024	55.79	0	1,800	73.25	Northern Graphite Corp. (101856) 100%	
31J10	2278451	March 16, 2024	59.08	0	1,800	73.25	Northern Graphite Corp. (101856) 100%	
31J11	2278453	March 16, 2024	55.71	0	1,800	73.25	Northern Graphite Corp. (101856) 100%	
31J11	2278454	March 16, 2024	57.99	0	1,800	73.25	Northern Graphite Corp. (101856) 100%	
31J11,31J10	2278455	September 17, 2025	65.34	380,314.84	1,800	73.25	Northern Graphite Corp. (101856) 100%	
31J10	2320828	October 26, 2024	0.020	0	750	37.5	Northern Graphite Corp. (101856) 100%	Affected by: Teaching and Research Forest
Total:	**12**		**590.57**	**$380,927.43**	**$18,450.00**	**$807.50**		

4.3 Environmental Liabilities and Permitting

All of the claims are located on Crown land. With the exception of two claims located in the southeast corner of the property, there is no specific restriction for exploration and mining activities. The southeast corner of the property (claims 2278448 and 2320828) overlaps a territory designated as a Research and Education Forest, and exploration and mining activities are subject to prior authorization by the government. The known main graphite occurrences are not located on these claims. There are currently no environmental liabilities related to the property.

4.3.1 Notable Risks

The Mousseau West graphite deposit is located approximately four kilometres north of Lake McCaskill, a holiday resort with numerous chalets and secondary residences. In 1990, Graphicor applied for a certificate of authorization to carry out development work on Mousseau East Project, which consisted mainly in a 50,000-tonne bulk sample. From October 4, 1990 to September 24, 1993, Graphicor, although it had not breached any laws, had to fight in court with the municipality of Ste- Véronique and the Environment Ministry of Québec to obtain all the required permits. Although the court consistently ruled in Graphicor's favour, the Environment Ministry appealed the decision in every case.

At the time, it was Graphicor's intention to mine the mineralization and haul it by truck to its existing mill at Lac aux Bouleaux. It appears that the opposition to the project was over the heavy traffic issue. Connection to a gravel road that passes some six kilometres to the west and connects to the main provincial road, Route 117, would eliminate heavy traffic through Lake McCaskill and should be considered as a mitigation measure.

In 2012, the Antoine-Labelle RCM asked the Québec Ministry of Natural Resources to ban mining in a vast area where local authorities wanted to establish a recreational tourist park. The ministry did ban staking on areas where no mining claims were active, but at the same time maintained the existing rights and confirmed that such rights would not be expropriated.

Since the municipal mergers, the property has been under the responsibility of the town of Rivière Rouge, which includes the larger municipality of L'Annonciation. Under the new Mining Act, the municipality will have some zoning rights to block a mining project, but these rights could be suspended by the Québec ministry if it deems that the proposed project is important for the local economy. Therefore, there are appropriate means available to achieve project acceptance.

4.4 QP Comments

The QPs are not aware of any significant factors or risks, other than those discussed in this section of the report, that may affect access, title or right or ability to perform work on the property by Northern Graphite. It is the QPs' understanding that further permitting and environmental studies would be required if future economic studies demonstrate that the mineralization is sufficient to host or provide a secondary feed source to a mining operation.

The Mousseau property is large enough to be able to locate and accommodate the infrastructure necessary to support any future mining operations, should sufficient economic mineralization be identified on the property.

5.0 ACCESSIBILITY, CLIMATE, LOCAL RESOURCES, INFRASTRUCTURE AND PHYSIOGRAPHY

5.1 ACCESSIBILITY

The Mousseau graphite property is located some 12 km north of the municipality of Sainte-Véronique (now a part of the town of Rivière-Rouge). The property can be accessed via Québec provincial highway 117, followed by the main road that passes through Sainte-Véronique, the Chemin du Tour du Lac Tiberiade, then north of the village, the Chemin du lac McCaskill and, finally, a gravel logging road. This road crosses the property in an east-west direction, and old logging roads branch off to provide access to the site of the workings.

The closest major international airport is located in Montreal which is approximately 2 hours south-east via Québec provincial highways.

5.2 PHYSIOGRAPHY AND CLIMATE

The property is located in the Laurentian Highlands. The topography of the area is characterized by a moderate relief with small hills up to 50 m high and a gradual increase in elevation from about 380 m in the south part of the property to more than 520 m at the northern edge of the property. Small lakes and ponds are found on the property, and these generally drain southward towards Lake McCaskill.

Most of the property was originally covered by a mixed forest dominated by deciduous species. Large parcels of this forest were logged many years ago and the area is now covered by an immature growth of maple trees, white and yellow birches and conifers. The Mousseau West graphite deposit is located in one of these logged areas. Figure 5.1 and Figure 5.2 are views of the Mousseau Project.

Figure 5.1
A View of the Mousseau Property

Figure 5.2
A Second View of the Mousseau Property

The climate in the area is temperate, with well-defined summer and winter seasons. The mean annual temperature in the area is 2.6° Celsius, with a mean temperature of 17.5° Celsius in July and -15° Celsius in January. Mean annual precipitation is 812 mm of rain and 203.9 cm of snow.

5.3 Local Resources and Infrastructure

Supplies, services and manpower are readily available in the nearby municipalities of Sainte Véronique and l'Annonciation, which became part of the town of Rivière-Rouge. Larger supplies for any future operation could be obtained from Montreal and the major mining suppliers located there.

The Canadian province of Québec is well known for its mining industry and the personnel necessary for a mining operation should be available.

5.4 QP Comments

Micon and the QPs believe that, to the extent relevant to the Mousseau Project, Northern Graphite should be able to obtain the surface access, environmental sign-off, power, water and exploration personnel to conduct further exploration programs and further economic studies on the property. Micon and the QPs also believe that the exploration programs and any potential mining operations could be conducted on a year-round basis.

The Mousseau property is large enough to be able to locate and accommodate the infrastructure necessary to host any future mining operations, should sufficient economic mineralization be identified on the properties.

6.0 HISTORY

6.1 GENERAL HISTORY

Graphite occurrences in the western part of the Grenville geological province in Québec have been known of since the 19th century. Massive graphite veins found in contact metamorphism environments were mined for the most part, but also some disseminated flake graphite horizons. Traces of numerous small artisanal open-pit operations are still present, and a few larger ones went underground. Most of these graphite occurrences are concentrated in southwestern Québec, close to the Outaouais River. Mining these occurrences ceased early in the 20th century.

Demand for graphite in various technologies increased gradually during the 20th century and exploration for graphite in the greater Mont-Laurier area consequently resumed gradually after 1950.

A well-known graphite occurrence was discovered in 1956 by Italia Copper Inc. along the north shore of Lac aux Bouleaux, south of Mont-Laurier, but was left undeveloped until the late eighties. At the time, in light of the estimated potential of this occurrence, Graphicor built and operated a mill, but ceased operating around 1993 due to mineralization continuity issues. Today, the only graphite producer in Québec is the Lac-des-Iles mine owned by Timcal up to 2022, which started production in 1988, and was acquired by Graphite Nordique, a subsidiary of Northern Graphite, in 2022. The mine is located just north of the Lac aux Bouleaux deposit and is probably located in the same stratigraphic horizon. Working as a consultant, one of the authors of the 2013 Technical Report was responsible for all exploration work and modeling of the Lac-des-Iles graphite deposit between 1997 and 2008.

Another important graphite occurrence was at the origin of the Asbury Graphite mine in Notre Dame-du-Laus, where production began in 1980 and ended in 1988. Quite a lot of exploration was done in the early eighties, as flake graphite prices reached the top of a cycle. At the time, the Ministère des Ressources Naturelles du Québec completed four geophysical airborne surveys, aimed at detecting new graphite occurrences.

The Mont-Laurier area was first mapped at a large scale by Wynne-Edwards in 1966 (GSC, Map 116). A more detailed preliminary geological map of the Ste-Véronique area was later produced by M. Rive in 1973, on behalf of the MRNFQ. The final report (RG 182) was edited three years later, in 1976. This mapping covers the area just south of the Mousseau Project.

The graphitic showing that led to the discovery of the Mousseau East and West deposits was uncovered during road building alongside Oat Lake, probably around 1980-1983. In 1984, the first exploration work was initiated on a four-claim block owned by two prospectors, covering part of the Mousseau property. At that time, geological and EM surveys, followed by Winkie drilling, confirmed the extension of the graphite showing. Grab samples revealed up to 22% graphitic carbon. An outcrop area grading 15% graphite over a width of about five metres was visually evaluated. Later on, the property was registered under the name of Harkema Industries Ltd.

The next work was reported in 1989, when Graphicor bought the original four claims from Harkema Industries and staked 44 new claims. At that time, the entire Mousseau property totalled 768 ha. An exploration program in the amount of $330,000 was proposed and included line cutting, geology and

MaxMin and Mise-à-la-masse surveys, followed by stripping, sampling and diamond drilling. The proposed exploration work was initiated in 1989, with 31 km of line cutting and MaxMin and Mise-à-la-masse surveying that located three EM conductors, described as probably associated with graphitic horizons. In 1989-90, 127 holes were drilled on the Mousseau East and West (Brunet). Holes depth generally ranged from 50 m to 80 m. This work led to the delineation of both the Mousseau East and the Mousseau West deposits. On the graphite occurrence of the Mousseau West deposit, 57 holes totalling 4,202 m were drilled (Figure 6.1) on an irregular drill spacing varying from 25 m to 40 m.

Following the 1989-90 drilling program, two bulk samples, one of 15 tonnes on Mousseau East and one of 12 tonnes on Mousseau West, were taken and sent to the Centre de Recherche Minérales (CRM) for recovery and metallurgical testing.

From 1990 to 1993, Graphicor completed a regional helicopter-borne EM survey. Following this survey, five claim blocks named Cahill, Curières, Tac, Lac Verts and Quatre-Milles were staked within a 15-km radius of Mousseau property. Exploration work, including line cutting, geology, geophysics and diamond drilling, was done. Several economic graphite intersections were obtained, but no follow-up work was performed.

In 1992, 28 more holes were drilled to obtain a 25-m drill pattern on Mousseau East. Surveying was also initiated to outline the boundaries of a mining lease obtained under number 808. During the same period, resources for the Mousseau East and West deposits were estimated; these are described later in this report.

Finally, at the end of 1993, as the price of graphite became increasingly depressed, Graphicor decided to suspend the project. On October 29, 1993, Indresco Canada Inc. (Indresco) bought all the issued and outstanding shares of Graphicor and the company was dissolved. On December 7, 1993, all the Graphicor mining properties were transferred to Indresco. Indresco later decided to keep the property on standby, and it was eventually abandoned.

In 1999, Falconbridge Ltd (Falconbridge) staked a major claim block that included the current property. A helicopter-borne EM-Mag survey was flown over the entire property to search for base metals and gold-bearing structures related to the Ste-Véronique circular intrusive complex. Some minor copper-nickel mineralization was reported in ultramafic rocks, along the contact of the intrusive complex. The survey detected the Mousseau graphite zone, as well as a major conductive zone just south of Oat Lake. The western part of this zone was tested by Graphicor with four holes in 1990 and is explained by graphitic marbles. Most of this zone is untested (Figure 6.1). No further work by Falconbridge was reported.

Figure 6.1
Mousseau Property showing the 1999 Falconbridge EM Airborne Anomaly

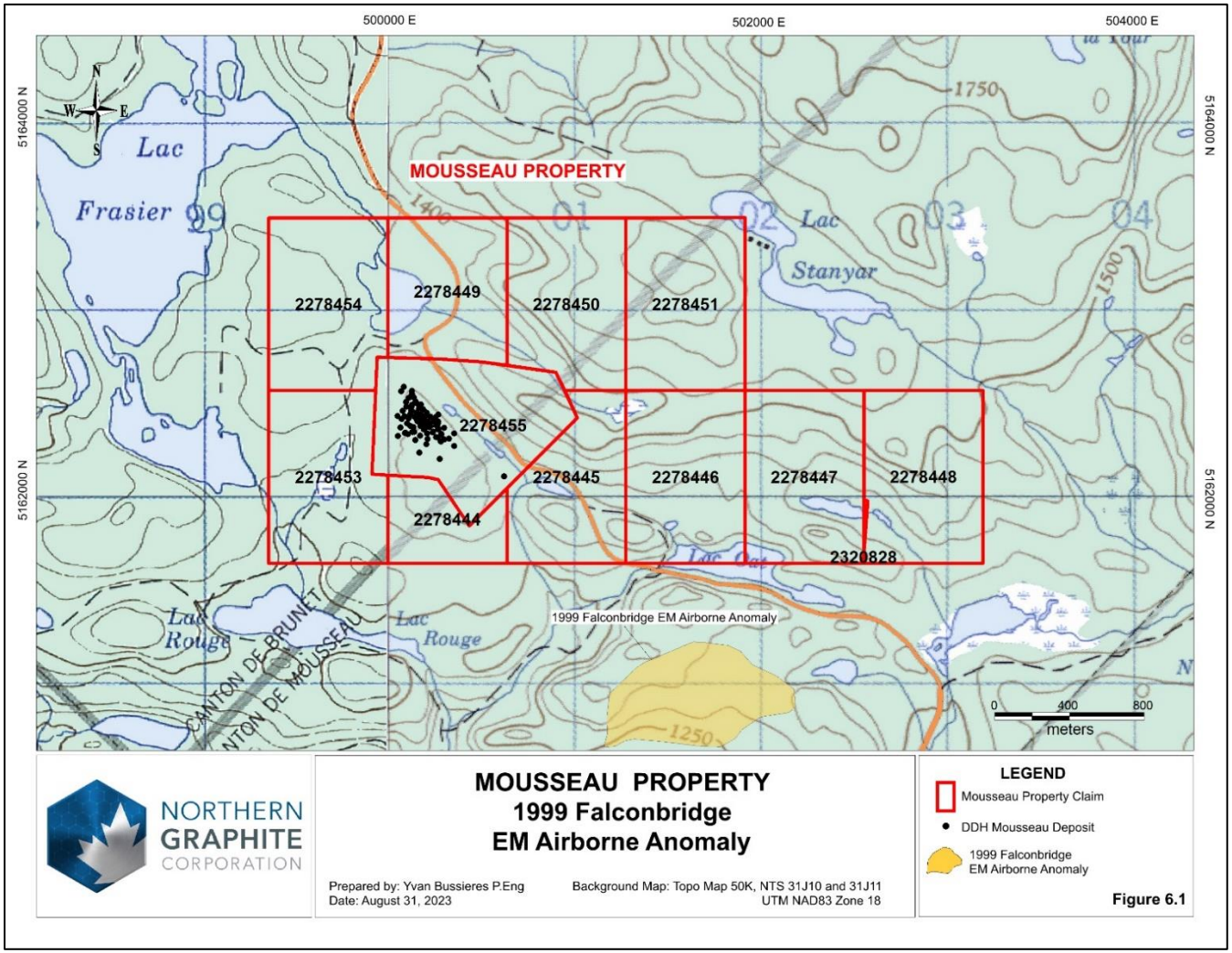


Figure supplied by Northern Graphite.

In 2003, the Mousseau West and East properties were owned by Ressources Aurter Inc. At that time, Aurter produced a compilation report and completed a prospecting program that included geological reconnaissance and grab samples. No samples were analyzed. The report was produced to interest junior exploration companies in optioning the property.

In 2008, the property was staked by the Kaminak Gold Corporation/Breakwater Resources Ltd. joint venture. The target of this project was similar to that of the 1999 Falconbridge project: copper-nickel mineralization in ultramafic horizons. A new EM airborne survey was flown, but the selected area did not cover the graphite occurrences.

Following the acquisition of the property by R.-M. Lacasse in 2011, a compilation Technical Report was produced in May, 2012 and additional drilling was recommended. Following the signing of an Option agreement in December, 2012 with Graniz Mondal Inc. (Graniz), exploration work resumed on the property. Line cutting and HLEM geophysics were completed in January, 2013. Between February and April, Graniz drilled twenty-seven holes totalling 3,300 m on geophysical anomaly E, which corresponds to the Mousseau West graphite zone defined by Graphicor in 1990. All these exploration programs are summarized in Table 6.1.

6.2 Historical Mineral Resource and Reserve Estimates

Historical mineral resource estimates have been conducted on the Mousseau Project, with the latest occurring in 2013.

However, as the 2013 mineral resource estimate has been subsequently superseded by the mineral resource contained in Section 14.0 of this Technical Report, it will not be discussed further in this report.

The 2013 report was authored by Alain Tremblay and Yvan Bussières of Consultations Géo-logic was entitled “Technical report (NI 43-101 compliant) and resource estimate on the Mousseau West Graphite Property (Brunet and Mousseau Townships) Mont-Laurier area, Province of Québec”. The report was prepared for Graniz.

6.3 Production History

No mining production has occurred on the Mousseau Project.

Table 6.1
Exploration History on the Mousseau Property

Year	GM	Author	Type of Work	Significant Results/Comments
1984	41493	J. Vroom and S. Harkema	Geological Mapping. EM Survey. Drill four short holes (16 m).	Work completed on the property (window) in the middle of the Lacasse Block, but on the same east-west conductor. 8 %to 12% flake graphite in marbles.
1989 – 1994	50640 51066 48867 48866 53100 50641 52017	Ressources Graphicor Inc.	Additional staking. Geological mapping. Max-min surveys. Mise a la masse survey. Stripping, sampling. Drilling 55 holes (4,064 m). Resource estimate.	Drilling on the western portion of the EM conductor (approximately 400 m lateral) confirm the historical estimate.
1999	58328	Falconbridge	Staking. EM-Mag airborne survey.	Looking for copper-nickel mineralization. No follow-up on the property.
2003	60536	Ress. Aurter Inc.	Geological reconnaissance.	Some sampling but no assays.
2008	64197 64633	Kaminak Gold Corporation Breakwater Resources	Staking of large area including the current Lacasse property. Helicopter-borne EM survey finishing just south of the property.	Looking for copper-nickel mineralization. No follow-up.
2011		Richard-Marc Lacasse	Staking.	
2012	67804	Richard-Marc Lacasse Standard Graphite Corp	NI 43-101 Compilation Report. EM-Mag airborne survey	Cover the eastern part of Mousseau Property as well the southern part of 1999 Falconbridge EM anomaly
2013	67399 68918	Graniz Mondal Inc. Graniz Mondal Inc.	Line cutting (37.9 km). HLEM Geophysics (35.6 km). Drilling (27 holes/ 3,300 m).	Attempt to duplicate old Graphicor grid Mousseau West gave the best anomaly, but two other good conductors were identified. Numerous wide graphitic intersections. Confirmation of Mousseau West zone.
2014	67888	Standard Graphite Corp.	Diamond Drilling Report.	Drilling campaign on Mousseau East zone. Duplicate and verify historical DDH from 1980 to 1983. Drill the extension of the historical resource. Drilling additional EM target not drilled yet.

Table supplied by Northern Graphite.

7.0 GEOLOGICAL SETTING AND MINERALIZATION

7.1 REGIONAL GEOLOGY

The Mousseau West deposit is located in the Grenville Geological Province, an assemblage of highly metamorphosed and folded rocks, with the last intense metamorphism event estimated at approximately one billion years ago. The Mont-Laurier area is located within a multi-kilometre-wide metasedimentary belt that extends along a general northeast trend from southwestern Québec to the Abitibi region.

The belt is composed of a variety of metasediments, such as biotite, garnet, sillimanite and pyroxene paragneisses, along with more siliceous horizons, such as quartzo-feldspathic gneisses or quartzites. Interbedded within these metasedimentary horizons are numerous highly deformed marble horizons, along with calcosilicated transition zones between the marbles and the clastic units. Orthogneisses of various composition and granitic (wide variety) intrusions are found, along with amphibolite, gabbros and pegmatites (Figure 7.1).

In the Mont-Laurier area, three main folding events are recognized. The first two resulted from intense east-west compression, while the younger and less intense event produced gentle north-south undulations. These orogenic events created complex multiphase folding and boudinage of the units, particularly the ductile marbles.

Graphite is frequently associated with metasedimentary units such as biotite gneisses, calcosilicated horizons and calcitic marbles. It occurs as disseminated flakes with typical concentrations in the range of 2%-15% Gr. Graphite is also present in a more intense geological environment as semi-massive to massive veins but in this case the continuity of the mineralization is simply unpredictable, which explains why the most interesting projects are of the disseminated type. Graphite flakes from the Mont-Laurier area typically include a major portion of so-called large flakes. However, the final percentage of larges flakes in a deposit can only be determined after milling tests, as the nature of the host rock and the grinding needed to liberate the flakes will influence the proportion of large flakes recoverable.

7.2 LOCAL AND PROPERTY GEOLOGY

The Mousseau property is located some five kilometres north of the seven-kilometre wide, circular intrusive body known as the Ste-Véronique intrusive complex, a syenite/pyroxenite annular intrusion that reconfigured the schistosity locally. As a result, the metasediments on the property generally strike east west and dip 30° to 45° south (Figure 7.1).

Drilling completed from 1989 to 1992 by Graphicor indicated that the biotite quartzo-feldspathic paragneisses constitute the dominant host rock of the property. The graphitic horizon is a marble unit interbedded within this clastic biotite paragneiss sequence. On both sides of the graphitic marble, there is a transition zone described in the logs as either quartzite or calc-silicate rock and also containing graphite flakes.

Figure 7.1
Regional Geology Map

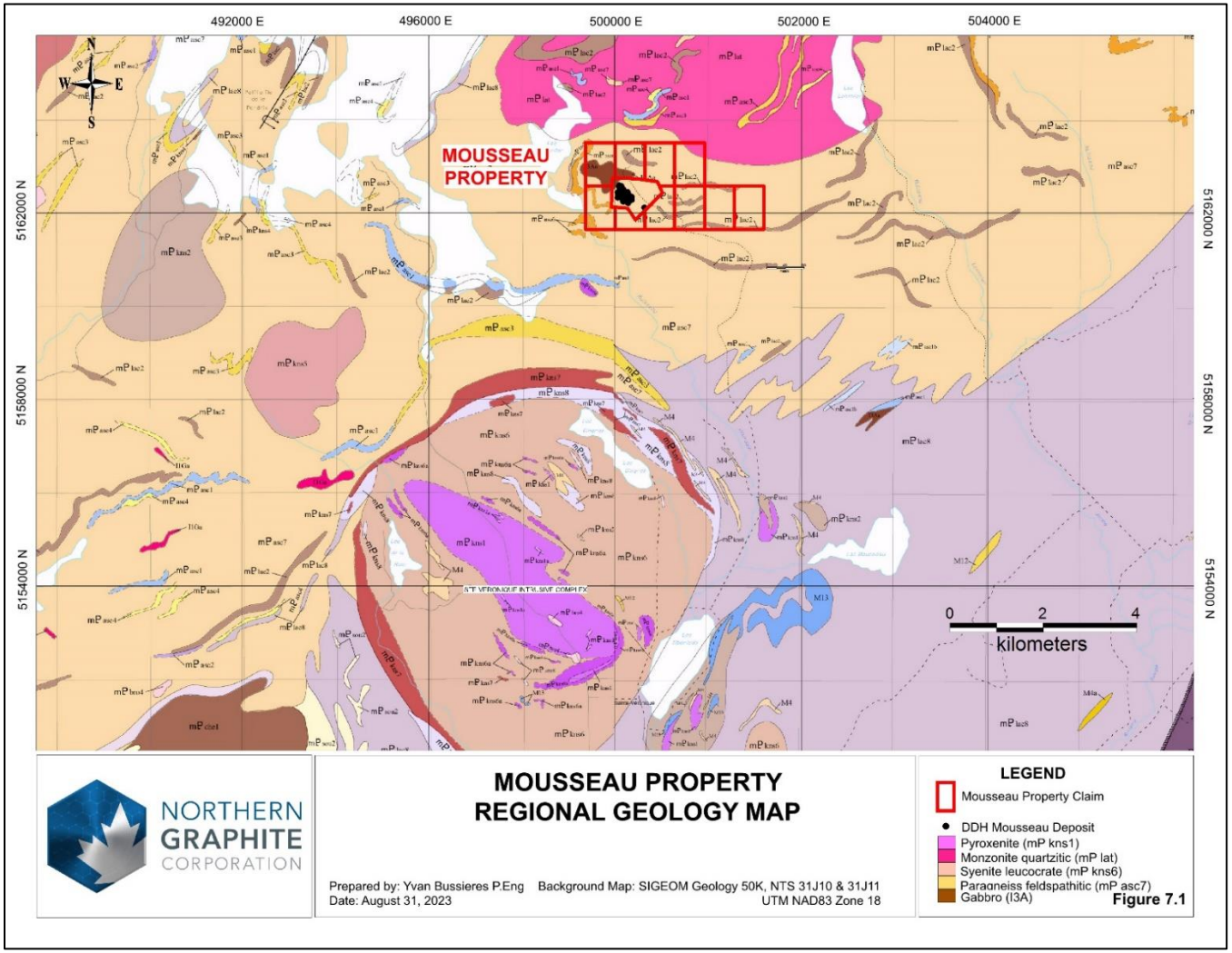


Figure supplied by Northern Graphite.

There are no detailed geological maps or sections in the available Graphicor documents. The knowledge of the geology is mostly supported by geophysical surveys that trace the conductive zone on the property (and its continuity to the east towards Mousseau East, as this entire area was part of the 1990 Graphicor property). In GM 52017, Graphicor states that the schistosity on the property strikes east-southeast and dips 30° to 45° to the south.

In 2013, a HLEM ground geophysical survey was completed by Graniz on the majority of the property, leaving just the eastern extremity uncovered. The EM anomalies reported appear to demonstrate that the Mousseau West graphite occurrence is a segment of a more extensive zone. The Mousseau West graphitic zone could be a limb of a multiphase fold that continues to the northwest as Graniz's anomaly D. Whether anomaly D connects with the other anomalies A, B and C that were identified is unclear and further work is needed to establish any relationships.

Drilling completed by Graniz in 2013 was concentrated on the main graphite zone corresponding to anomaly E, where Graphicor identified the Mousseau West deposit (also called the Brunet deposit).

The results obtained by Graniz suggest the presence of a synclinal fold, dipping some 45° to the southwest. The calcitic marble unit hosting graphite mineralization would, therefore, be folded so that it forms two separated graphitic marble horizons, the limbs of the fold, near surface. As the limbs dip to the southwest at depth, they join together and form the most important graphitic concentration in the nose of the fold. A calc-silicated unit carrying more or less graphite is found on each side of the graphitic marble horizon as it constitutes a transitional zone between a detritic domain (the gneisses) and the chemical domain (the marbles).

The stratigraphy of the deposit includes a sequence of quartzo-feldspathic biotite gneisses (found at surface) followed by calc-silicated rocks and then calcitic marbles carrying graphite. Very limited drilling was completed beyond the deeper graphitic intersections so it is not possible to confirm whether the biotite gneiss returns, as would be expected. Most of the time, the holes ended into a calc-silicated rock unit that is usually representative of the transition zone.

Quaternary deposits are mostly composed of sand and gravel, with thicker deposits in the valleys and thinner coverage on the topographic highs. The Mousseau West deposit corresponds to an area of thin overburden.

7.3 MINERALIZATION

The Mousseau West zone is located at the western end of the two-kilometre long, roughly east- west trending electromagnetic (EM) conductor that lies some 100 m north of Oak Lake. Previous exploration by Graphicor demonstrated that thinner overburden coverage occurs at both ends of this conductor, which explains the concentration of exploration activities in these areas, since they are more favourable for open pit mining.

Geophysics carried out by Graphicor indicated that the main east-west conductor has several south-trending branches. Subsequent Mise-à-la-masse geophysical surveys indicated that all these conductive branches were electrically related.

More recent geophysical surveys by Graniz suggest a conductive zone adopting the trace of multiphase folding dislocated by late faulting. This is the morphological model actually retained for geological interpretation.

The part of the graphitic horizon called Mousseau West is an 800-m long segment of the main conductor described above that corresponds to anomaly E of the 2013 geophysical survey. It appears to be truncated at both ends, probably by late northeast-southwest trending late faults, as suggested by geophysical interpretation.

Conductivity measured by the various geophysical surveys in the area is explained by graphite within carbonated meta-sedimentary units. The original carbon has been mostly recrystallized as flakes up to a few millimetres in diameter. Intense deformation of the Grenvillian rocks resulted in numerous strongly foliated or schistose planes, which, in a graphite rich rock, produce good conductive zones.

Graphite is associated with carbonated units, such as calcitic marbles and calc-silicated rocks. Both carry graphite flakes, but the calcitic marbles constitute the main host rock. Calc-silicated rocks are a transition between truly clastic deposition (gneisses) and truly chemical deposition (marbles). They tend to be thinner and more erratic than the marbles.

The mineralization of the Mousseau West graphite occurrence is typically a grey to white calcitic marble containing graphite as disseminated fine to coarse flakes a few millimetres in diameter. At Mousseau West, most of the graphitic marbles show a particular nodular texture. Graphite and some silicated minerals are grouped into rounded agglomerates called nodules, separated from each other by the calcitic matrix. Two types of nodular textures were distinguished: the micro nodular, with nodules around 3 mm in diameter and the nodular (the most frequent), with nodules ranging from 0.5 cm to 4.0 cm. This texture (Figure 7.2) might be indicative of a low strain metamorphic environment.

Figure 7.2
Nodular Graphite in Calcitic Marble

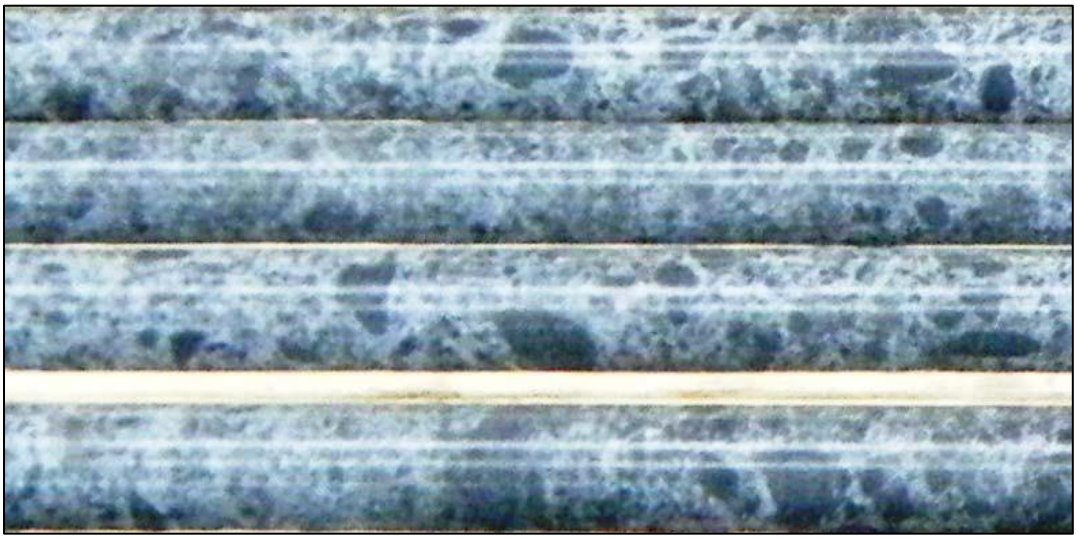


Figure extracted from the 2013 Technical Report.

Nodules form between 10% and 40% of the graphitic horizon. Total graphite in the mineralized marbles ranges between 2% to 15%, with an average content of around 8%. Locally, some mineralized horizons may reach 15% to 20% graphite, but these are not representative of the mineralization.

Drilling completed to date indicates a tendency to get the better grades (6% to 10% Gr) in the upper portion of the mineralized marbles and lower grades (2% to 5% Gr) in the deeper portion.

Iron sulphides are almost always present, with pyrrhotite more frequent than pyrite, both totalling around 3% to 5% of the rock. Some rich graphite sections with 20% Gr were found to contain up to 10% sulphides.

Thin decametric layers of calc-silicated rocks, quartz-feldspathic gneisses or pegmatitic material are interlayered locally in the graphitic marbles.

The calc-silicated rocks on each side of the graphitic marbles, the transition zone, are composed mostly of quartz, diopside and calcite, with accessories minerals. These can carry from trace to 15% graphite and are also called impure quartzites in some drill logs. These may form part of the graphite resource locally.

This type of mineralization is very similar to the Graphite Nordique Inc. Lac-des-Iles graphite deposit currently in production south of Mont-Laurier. Future production from the Mousseau West mineralization should yield similar graphite products in term of grade and flake size.

8.0 DEPOSIT TYPES

Most crystalline graphite occurrences in the province of Québec fall into one of two categories:

1) Vein graphite

This type of occurrence attracted attention in the early 20th century. The graphite occurs as nearly pure, massive veins or lenses. The geological environment is contact metamorphism. The graphite concentrations are very erratic, difficult to follow and a nightmare for mine planning. Tonnages extracted were low and most of the operations were abandoned quickly.

2) Flake graphite

Graphite also occurs as flakes a few millimetres wide, disseminated in metasedimentary rocks. Gneisses or marbles can typically host horizons containing between 2% and 20% graphite, with pyrite, pyrrhotite, pyroxene and micas as frequent accessory minerals.

While the grade of flake graphite is lower than in vein graphite occurrences, the geological setting is more stable, so the continuity is easier to establish, even though the Grenvillian geology in which such occurrences are found is generally complex. This setting is more appropriate for mining, which explains why all the graphite mining projects in Québec are associated with occurrences of this type.

At least two major folding episodes and one minor episode deformed the original Grenvillian sedimentary rocks. Original sedimentary horizons are now highly deformed, particularly where ductile marbles are concerned. In most of the deposits, deformation is responsible for the repetition of mineralized horizons and the accumulation of graphite mineralization in fold noses. This natural concentration of the graphitic horizons helps create economic deposits.

A few of the well-known graphite deposits in Québec are as follows:

- Lac Knife: This deposit contains graphite as disseminated flakes in a quartzo- feldspathic gneiss, with biotite and significant sulphides. This deposit is located in the Fermont area.
- Carmin: This deposit contains graphite as disseminated flakes in gneisses and silicated marbles. This deposit is located west of Mont-Tremblant.
- Asbury: This deposit was mined in the eighties and contained graphite as disseminated flakes in marbles and gneisses. The project is located in Notre-Dame-du-Laus, south of Mont-Laurier.
- Matawinie: Nouveau Monde Graphite is developing this graphite deposit in which the crystalline flake graphite mineralization is mostly aligned parallel to the main foliation and is disseminated in the marbles and rusty biotite paragneisses of the Grenville Supergroup. The project is located in Saint-Michel-des-Saints, approximately 150 km north of Montréal.
- Lac Tétépisca: This deposit is composed of fine to medium grained quartz-feldspar-biotite schists, with local occurrences of garnet and kyanite. Fine to coarse graphite flakes and associated sulphides compose 10% to 20% of the rocks, and up to 50% in strongly mineralized zones. This graphite project is located southwest of the Manicouagan Reservoir in the Côte-Nord administrative region of Québec.
- La Loutre: The stratigraphic sequence consists of a thick paragneiss unit intercalated with thin units of quartzite and marble. The mineralized domains are mainly located in the paragneiss and

follow the stratigraphy. Graphite flakes are disseminated in the graphitic paragneiss in variable concentrations. The project is approximately 30 km west-southwest of the city of Mont-Tremblant (about 45 km by road) with the closest community being Duhamel, 5 km to the west.

- Lac des Iles Graphite mine: The graphite mineralization at the Quarry deposit is hosted in a strongly folded marble unit within a paragneiss host rock. The mineralization consists of large graphite flakes commonly associated with regular banding of paragneiss, conforming to beds. The protolith is thought to comprise a clayey-carbonate sandstone. The Lac-des-Îles Graphite mine is located approximately two kilometres south of Lac-des-Îles.

9.0 EXPLORATION

9.1 GRANIZ EXPLORATION PROGRAM

Graniz signed the option agreement for the Mousseau property on December 12, 2012 and conducted an exploration program on the property in 2013.

In January, 2013, a new grid was established totalling 37.9 km of grid lines. The starting point for the 2013 grid and the base line orientation were the same as the original 1990 Graphicor grid lines, thus the new 2013 grid should have been similar to the previous historical grid.

In late January, 2013, a multi-frequencies HLEM ground geophysical survey (35.6 km) was carried out by Géophysique TMC Inc. (Géophysique TMC) on most of the property. The surface covered by the survey is shown in Figure 9.1 (see also Table 6.1).

There are no detailed geological maps or sections in the available Graphicor documents. The knowledge of the geology is mostly supported by geophysical surveys that trace the conductive zone on the property (and its continuity to the east towards Mousseau East, as this entire area was part of the 1990 Graphicor property). In GM 52017, Graphicor states that the schistosity on the property strikes east-southeast and dips 30° to 45° to the south.

In 2013, a HLEM ground geophysical survey was completed by Graniz on most portions of the property, leaving just the eastern extremity uncovered. The EM anomalies reported appear to demonstrate that the Mousseau West graphite occurrence is a segment of a more extensive zone. The Mousseau West graphitic zone could be a limb of a multiphase fold that continues to the northwest as Graniz's anomaly D. Whether anomaly D connects with the other anomalies A, B and C that were identified by Graniz is unclear and further work will be needed to establish any relationships.

The results obtained by Graniz suggest the presence of a synclinal fold, dipping some 45° to the southwest. The calcitic marble unit hosting graphite mineralization would, therefore, be folded so that it forms two separated graphitic marble horizons, the limbs of the fold, near surface. As the limbs dip to the southwest at depth, they join together and form the most important graphitic concentration in the nose of the fold. A calc-silicated unit carrying more or less graphite is found on each side of the graphitic marble horizon, as it constitutes a transitional zone between a detritic domain (the gneisses) and the chemical domain (the marbles).

This work was combined with a review of the available and other logistical tasks, such as the preparation of blank and standard samples for analytical control during the assaying procedures.

Drilling was carried out on the property between January 25 and March 2, 2013. The drilling in 2013 was concentrated on the main graphite zone corresponding to anomaly E, where Graphicor identified the Mousseau West deposit (also called the Brunet deposit).

Figure 9.1
HLEM Geophysical Anomalies Identified on the Mousseau Property

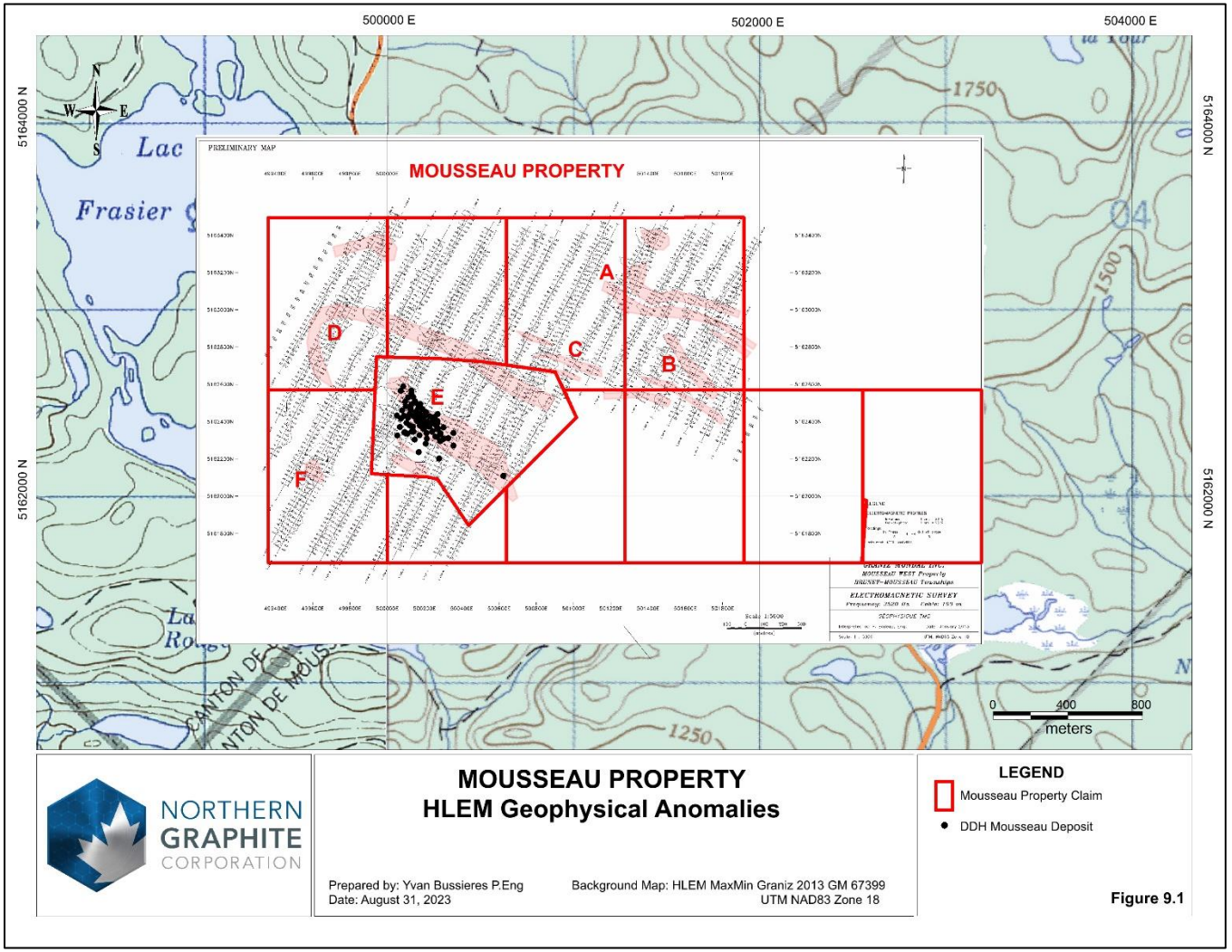


Figure supplied by Northern Graphite.

9.2 Northern Graphite Exploration Program

Northern Graphite has not conducted any exploration programs on the Mousseau Project. Northern Graphite has been undertaking a reinterpretation and compilation of the data, and this has resulted in an updated mineral resource estimate.

9.3 QP Comments and Recommendations

The QP considers that further exploration is necessary to fully identify the nature and extent of the graphite mineralization at the Mousseau Project. Potential secondary sources of mineralization identified by the geophysical surveys should be followed up by further trenching and sampling, if possible, or else by drilling.

10.0 DRILLING

10.1 GRANIZ DRILLING PROGRAM

Graniz drilled 27 holes during the winter of 2013 for a total of 3,300 m. Table 10.1 summarizes the drill hole location and information for the 2013 drilling program.

Table 10.1
Summary of the Drill Hole Location and Information for the 2013 Graniz Drilling Program

Hole Name	Easting[1]	Northing[1]	Elevation[1]	Azimuth (°)	Dip (°)	Length (m)
2013-120	500121.520	5162377.005	402.156	32.8	-87.7	150
2013-121	500131.127	5162345.469	407.065	331.9	-89.4	138
2013-122	500092.324	5162341.363	403.227	40.5	-88.4	144
2013-123	500192.870	5162360.280	410.364	329.0	-89.2	135
2013-124	500206.926	5162441.942	413.963	58.8	-88.5	108
2013-125	500155.074	5162498.553	415.201	163.7	-88.8	129
2013-126	500171.694	5162427.693	411.103	64.7	-89.2	129
2013-127	500155.787	5162443.002	412.076	323.3	-87.2	108
2013-128	500227.254	5162427.078	414.059	284.2	-87.8	99
2013-129	500247.783	5162412.738	413.350	9.1	-89.6	102
2013-130	500270.238	5162401.081	411.198	44.5	-88.2	102
2013-131	500257.424	5162381.481	411.806	20.9	-86.9	90
2013-132	500272.592	5162360.961	411.131	91.1	-89.4	90
2013-133	500285.732	5162330.375	411.540	9.6	-88.6	102
2013-134	500301.490	5162366.593	411.738	350.7	-89.1	117
2013-135	500210.506	5162338.683	410.683	332.2	-87.2	159
2013-136	500175.142	5162376.470	408.243	100.6	-87.7	111
2013-137	500159.843	5162401.883	408.079	337.3	-87.8	120
2013-138	500121.947	5162439.931	406.429	343.4	-86.6	183
2013-139	500090.083	5162428.777	401.345	1.6	-89.3	141
2013-140[2]	500193.000	5162410.000	412.500	75.5	-88.0	102
2013-141	500208.727	5162391.778	412.059	83.0	-87.7	120
2013-142	500222.767	5162372.280	411.091	353.8	-88.3	120
2013-143	500241.856	5162347.674	410.602	353.8	-90.0	120
2013-144	500257.193	5162317.761	410.150	6.4	-88.0	150
2013-145	500282.811	5162293.188	410.450	333.7	-89.5	120
2013-146	500125.765	5162478.356	412.908	79.6	-88.7	110
Total:						**3,300**

Table extracted from the 2013 Technical Report.
Notes:

1 *Coordinates in UTM NAD83 Zone 18.*

2 *Surveying based on 2013-140 casing set at 500193 E, 5162410 N, 412.5 m Elev.*

A total of 1,094 samples were collected and assayed for carbon (C), of which:

- 737 samples were assayed for iron (Fe) and sulphur (S) to evaluate their sulphide content.
- 21 samples were duplicates to check the repeatability of assaying.
- 22 samples were blanks to check for contamination among assays at the laboratory.
- 21 samples were standard mineralized samples to control for sample grade reproducibility.
- 10 samples were standard mineralized samples assayed to determine their grades.

The QP notes that all samples were collected and assayed according to industry standards and are considered representative. The QP does not know of any factor that may have caused sample biases. Core recovery averaged 89%.

The purpose of the 2013 winter drill program was to delineate the resources of a graphite deposit drilled by Graphicor in 1989 and 1990. At that time, Graphicor drilled 57 holes, generally spaced between 25 m and 40 m apart. The Graniz drill program was outlined and spaced in order to achieve final 25-m grid spacing, including the Graphicor holes. Unfortunately, Graniz was unable to locate the Graphicor holes during the drilling program due to snow coverage and, as a result the 2013 drilling pattern was not optimal. Many of the 2013 drill holes duplicated the 1990 drill holes. However, the less-than-optimal drilling program still meant that Graniz had numerous 2013 graphite intercepts to compare with to the 1990 intercepts, and this allowed Graniz to validate the 1990 drill data.

The winter drilling program intercepted 67 graphite zones with the significant intercepts summarized in Table 10.2.

Figure 10.1 shows the location for all of the 1990 and 2013 drill holes. Drilling was concentrated between Sections 13+75W and 16+25 W of the grid, in the same area that Graphicor drilled during its 1990 program.

Table 10.2
Summary of Significant Graphite Assays from the 2013 Graniz Drilling Program

Drill Hole ID	From (m)	To (m)	Graphite Assay (%)	Length (m)	True Width (m)
2013-120	38.3	88	6.37	49.7	35.14
	102.4	130.9	4.54	28.5	18.32
2013-121	26.9	28.9	3.7	2	2
	43.6	45	9.84	1.4	1.4
	91.9	96.1	12.13	4.2	4.2
2013-122	45.9	48.4	6.36	2.5	2.5
	65.1	70.1	11.74	5	5
	92.5	111.1	8.3	18.6	18.32
2013-123	6.6	8.6	10.75	2	1.29
	11.7	13.3	13.15	1.6	0.7
	38	45	2.68	7	3.07
	51.1	115	5.08	63.9	28.01
2013-124	3	14.8	2.35	11.8	11.62
	26.8	29.6	5.98	2.8	2.76
	76.8	87.2	2.04	10.4	10.4

Drill Hole ID	From (m)	To (m)	Graphite Assay (%)	Length (m)	True Width (m)
2013-125	6.7	11.6	10.74	4.9	4.6
	21.8	23.7	7.83	1.9	1.79
	45.7	52.2	2.78	6.5	6.11
	109	122.8	2.66	13.8	6.9
2013-126	32.60	78.60	4.43	46.00	32.53
	78.7	118	1.17	39.3	27.79
2013-127	46.90	49.50	10.31	2.60	2.36
	65.30	88.40	4.68	23.10	20.94
2013-128	1.20	12.30	4.24	11.10	7.85
	21.70	41.20	8.08	19.50	13.79
	52.60	81.00	7.74	28.40	20.08
2013-129	19.50	23.30	3.05	3.80	1.67
	28.60	40.00	5.06	11.40	5
	77.60	82.50	5.83	4.90	4.9
2013-130	1.40	18.60	1.33	17.20	17.2
	22.00	30.80	1.91	8.80	8.8
	57.40	67.30	1.71	9.90	9.9
	75.00	80.90	3.8	5.90	5.9
2013-131	13.60	19.70	9.05	6.10	5.53
	27.1	35.4	5.95	8.30	5.87
	49.8	63.2	2.51	13.40	13.4
2013-132	24	31	4.22	7.00	4.95
2013-133	6	34.5	7.41	28.50	12.49
2013-134	12.1	12.9	5.92	0.80	0.66
	23.6	26.4	3.09	2.80	2.29
	33.4	60	1.00	26.60	21.79
	91.1	91.9	2.88	0.80	0.76
	98.5	99.5	3.23	1.00	0.95
2013-135	50.8	52.6	14.50	1.80	1.8
	79.7	85.7	12.82	6.00	6
	103.8	122.2	5.94	18.40	18.4
2013-136	17.9	21.8	11.90	3.90	3.9
	34.6	38.6	14.30	4.00	4
	54.8	96.1	6.17	41.30	41.3
2013-137	27	92.6	7.85	65.60	46.39
2013-138	35.4	38.5	7.19	3.10	1.78
	49.5	51.1	14.20	1.60	0.92
	126.2	154.9	7.40	28.70	16.46
	172.8	183	2.23	10.20	5.85
2013-139	26.9	28.5	7.71	1.60	1.23
	60.6	122.1	6.26	61.50	47.11
2013-140	2.7	7.9	6.68	5.20	5.2
	14.8	82.8	5.55	68.00	68
2013-141	28.5	70.9	5.08	42.40	29.98
2013-142	16.5	59.3	9.05	42.80	42.8
2013-143	53.8	71	4	17.20	7.54
2013-144	35.7	37.8	13.25	2.10	1.48
	53.1	139	8.6	85.90	60.74
2013-145	1.6	4	4.97	2.40	1.7
	36.6	40.7	11.87	4.10	2.9
2013-146	1.2	13.6	7.63	12.40	9.5
	66.3	97.1	6.27	30.80	23.59

Table extracted from the 2013 Technical Report.

Figure 10.1
1990 and 2013 Drill Hole Locations

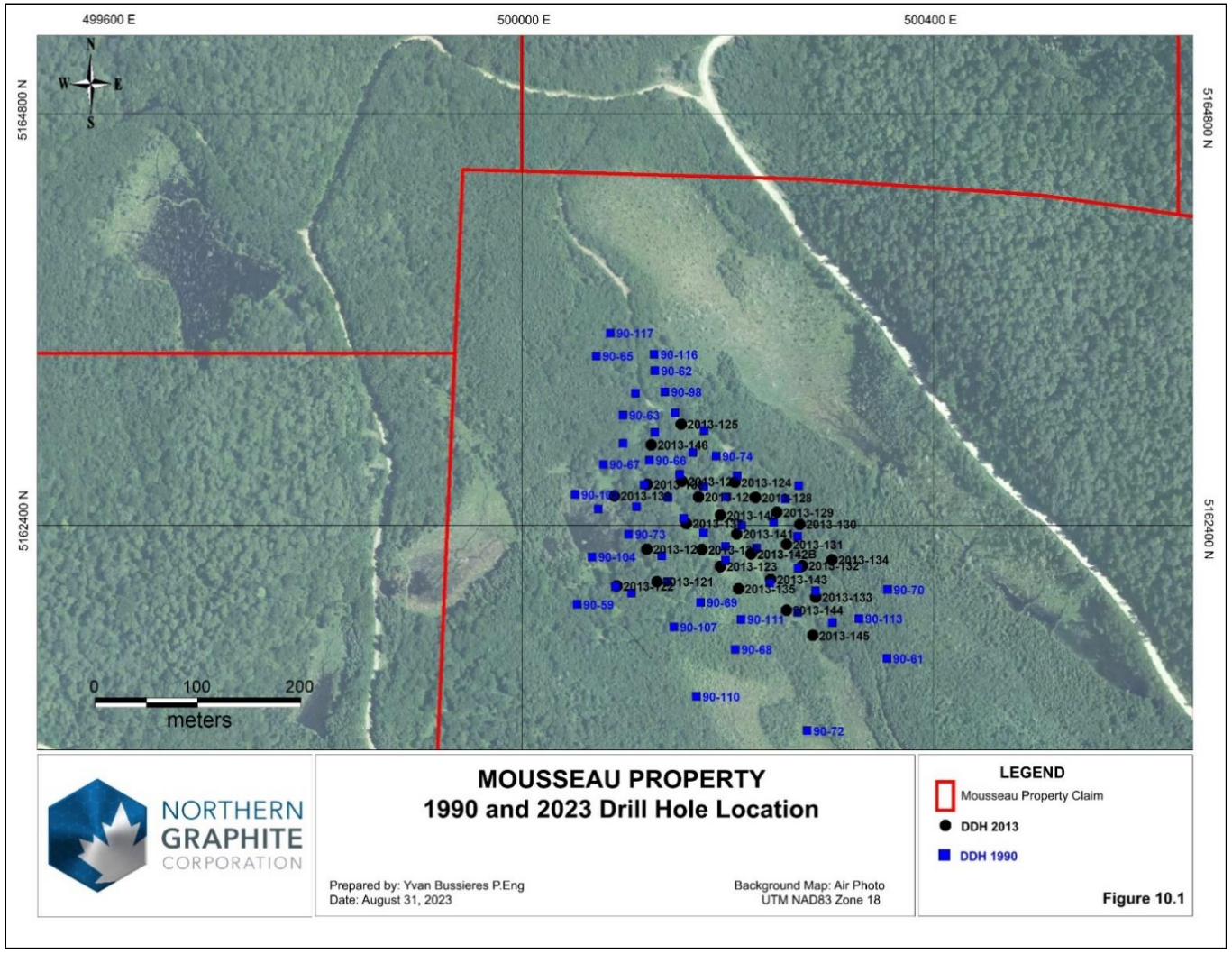


Figure supplied by Northern Graphite.

The 2013 Graniz drilling program was successful in two aspects, in that it demonstrated that there are potentially a number of economic intersections within the graphite lenses and that Graniz was able to demonstrate that the historic Graphicor information was of sufficient quality that it can be used as the basis of further studies.

10.2 Northern Graphite Drilling Program

Northern Graphite has not conducted any drilling programs on the Mousseau Project. Northern Graphite expects to conduct a drilling program once it completes its assessment of the property.

10.3 QP Comments and Recommendations

The conductive zone associated with the graphite mineralization, that has been identified by the drilling programs, extends, an additional 400 m to the southeast. This area is considered a prime target to increase the resources and the QP recommends conducting a drilling program in this area as part of future work on the property.

The secondary targets identified by Graniz should also be investigated by undertaking drilling programs on them. These could produce secondary sources of economic mineralization which could supplement any potential mining operation, should further studies demonstrate the economic viability of the graphite mineralization at the Mousseau Project.

11.0 SAMPLE PREPARATION, ANALYSES AND SECURITY

11.1 DESCRIPTION OF HISTORIC GRANIZ QUALITY ASSURANCE/QUALITY CONTROL PROGRAM

11.1.1 Sampling Method Description

11.1.1.1 Sample Preparation

Drill core sample preparation consists of splitting the drill core in two, with one half staying in the core box and the other half going into the plastic sample bag for shipping to the assay laboratory. The plastic bags were numbered with the sample number and the waterproof sample tag was also added to ensure correct sample identification. This sampling was done under the supervision of Yvan Bussieres, P.Eng.

11.1.1.2 Sample Type

The drill core sample consists of one half of the split drill core with the maximum sample length generally 2 m. The maximum sample length chosen was the same as the sample length used for the 1990 drilling campaign. However, the sample length could vary according to changes in lithology or due to graphite content.

11.1.1.3 Sample Characteristics

Drill core samples were taken when the geologist logging the core observed more than approximately 1% graphite mineral within the core. The purpose of the sampling is to determine the grade of the graphite zone and one sample was added before and after the graphite zones to confirm the boundaries of the zones.

11.1.1.4 Sampling Accuracy

Since core recovery averaged 89% and the core sample was comprised of half of the drill core for each sample, it is believed that the samples accurately reflected the graphite zone.

11.1.2 Sample Preparation and Analysis

At the laboratory, the entire half drill core samples were crushed to less than 2 mm, and a 250- gram representative portion of the sample was crushed to less than 75 microns. The samples were assayed using ALS Chemex's C-IR06 and ME-MS41[2] assay methods.

The C-IR06 method consists of acid digestion of 1 gram of prepared sample followed by heating in the combustion furnace. The purpose of this method of preparation is to remove the carbon associated with carbonate minerals, such as calcite by digestion in acid, with the remaining carbon burned off by the combustion furnace.

http://www.alsglobal.com/en/Our-Services/Minerals/Geochemistry/Service-Schedule

The ME-MS41 method consists of digestion of a 0.5 gram of prepared sample by Aqua Regia extraction with ICP-MS finish. The samples are digested with concentrated nitric acid for one half hour. After cooling, hydrochloric acid is added to produce Aqua Regia and the mixture is then digested for an additional hour and a half. An ionization suppressant is added if molybdenum is to be measured. The resulting solution is diluted to a volume of 100 or 250 mL with demineralized water, mixed and then analyzed by ionizing the solution with inductively coupled plasma mass spectrometry (ICP-MS) against matrix-matched standards.

11.1.3 Assay Quality Control

ALS Chemex's standard quality control for each batch of 36 samples consists of:

- An assay of a blank sample.
- An assay of a standard sample.
- Two re-assays of samples from the batch.

Graniz added three additional assay controls to ensure high-quality control for its exploration work. These additional assay controls are:

- Insertion of a duplicate sample to verify whether the laboratory could replicate the same value for the same sample.
- Insertion of a blank sample to verify whether there was contamination among samples at the laboratory.
- Insertion of a standard sample to verify the stability of assay values by obtaining the same value.

A total of 1,094 samples were assayed for the 27 drill holes during the program, including 74 control samples. The Graniz control samples represented 7% of the core samples. ALS Chemex also added 51 duplicates, so that the total quality control assays represented 12% of the samples assayed.

11.1.3.1 Duplicates

During the drilling program, Graniz added one duplicate sample per drill hole, for a total of 21 samples.

Sample duplication was achieved by splitting the half core sample into two equal parts. A quarter of the core sample remained in the original sample bag with the other quarter placed in a second sample bag and numbered with a subsequent sample number.

Figure 11.1 shows a very good replication of carbon, iron and sulphur values in the duplicate samples. Therefore, the duplicate samples generally confirmed the reproducibility of sample values for the Graniz drilling program.

11.1.3.2 Blank Samples

During the drilling program, Graniz added one blank sample per drill hole, for a total of 22 blank samples.

Figure 11.1
Graniz Duplicate Samples for the Mousseau West Deposit

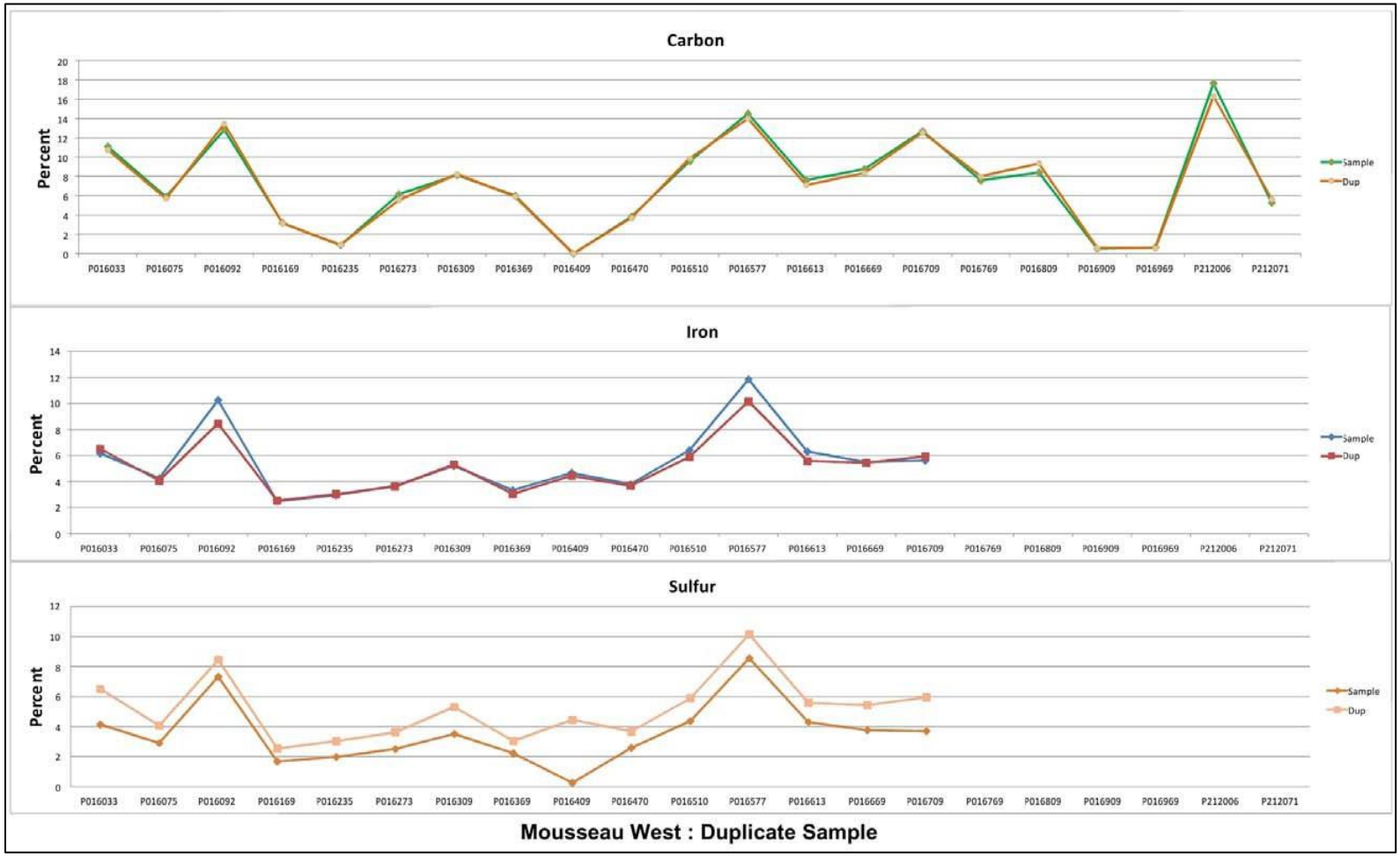


Figure taken from the 2013 Graniz Technical Report.

The blank samples consisted of approximately 250 g of coarse crushed marble.

Figure 11.2 indicates that the carbon values ranged from 0 to 0.05% in the blank samples, except for sample P016230, which graded 0.83% carbon. Graniz suspected that a sample switch occurred in the laboratory and requested a reassay of the P016230 laboratory pulp. The reassay returned a carbon grade of 0.05% (red square), which is similar to the other samples. Thus, the very low carbon content of the blank samples generally confirmed that no contamination among samples occurred in the laboratory.

Figure 11.2 also indicates that the iron and sulphur values for the blank samples ranged from 0.03% to 0.05% and 0 to 0.05%, respectively. This very low iron and sulphur content for the blank samples also generally confirmed that no contamination occurred among samples in the laboratory during the preparation and assaying procedures.

11.1.3.3 Standard Samples

During the drilling program, Graniz added one standard sample per drill hole, for a total of 21 standard samples. Furthermore, 10 standard samples were added in a row to produce a mean value for the standard material.

The standard samples consisted of approximately 250 g of coarse crushed marble from carbon-mineralized rock blocks from the Mont-Laurier area. The rock was coarsely crushed and homogenized by a laboratory in Chibougamau.

Figure 11.3 indicates that carbon values ranged from 0.84% to 1.27% for the standard samples. The 10 samples assayed in a row, samples P016105 to P016114 (red line and square), averaged 1.02% carbon. Therefore, the carbon values ranged from minus 16% to plus 27% of the average, which is considered to be too great a variance for a standard assay. Graniz suspected that this resulted from the fact that the standard materiel was not truly homogenous and that the carbon content is too low. Graniz believed that the standard material should have had a carbon content of at least 6%, and preferably 8%. In the end, Graniz concluded that the standard material was not appropriate for checking the stability of the assay level.

11.1.3.4 ALS Chemex Duplicate Samples

During the Graniz drilling program, ALS Chemex added at least one duplicate sample per assay batch and another duplicate for each 36 samples in the batch, for a total of 51 duplicate samples.

Sample duplication was achieved by assaying a second pulp digestion.

Figure 11.4 indicates a very good reproducibility of values for carbon, iron and sulphur for the ALS Chemex duplicate samples. This tends to confirm ALS Chemex's ability to reproduce the sample values.

Figure 11.2
Graniz Blank Samples for the Mousseau West Deposit

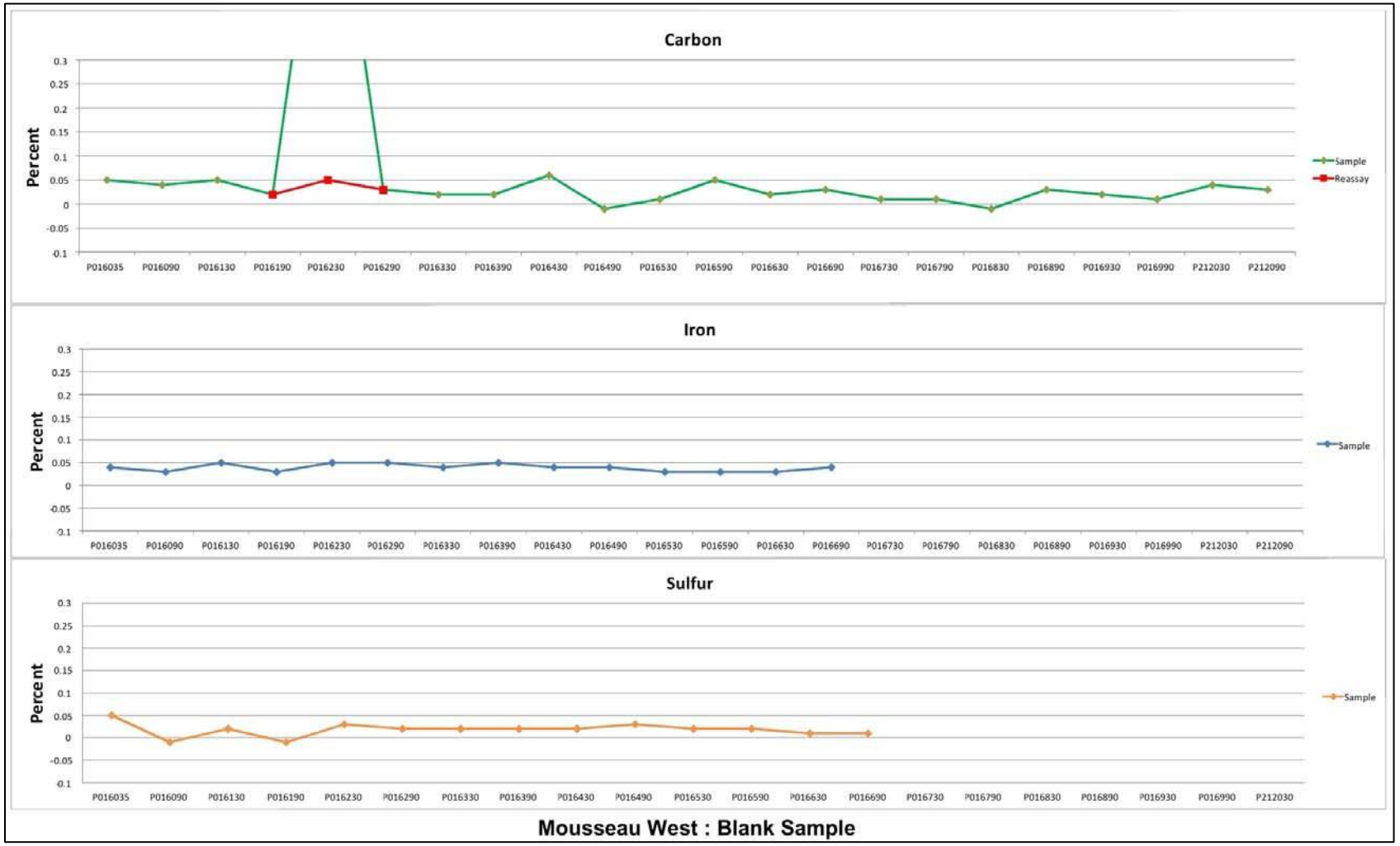


Figure taken from the 2013 Graniz Technical Report.

Figure 11.3
Graniz Standard Samples for the Mousseau West Deposit

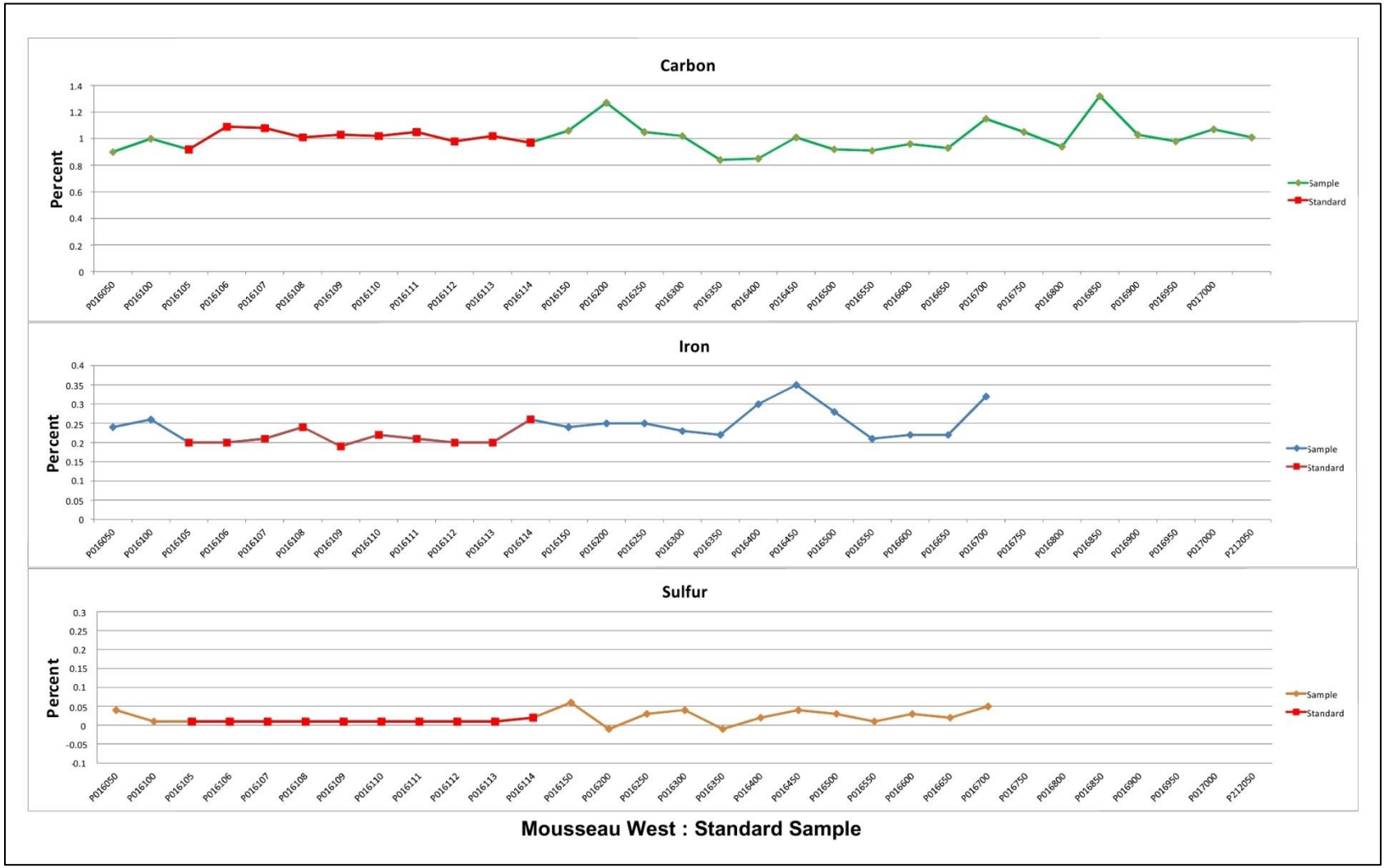


Figure taken from the 2013 Graniz Technical Report.

Figure 11.4
ALS Chemex Duplicate Samples for the Mousseau West Deposit

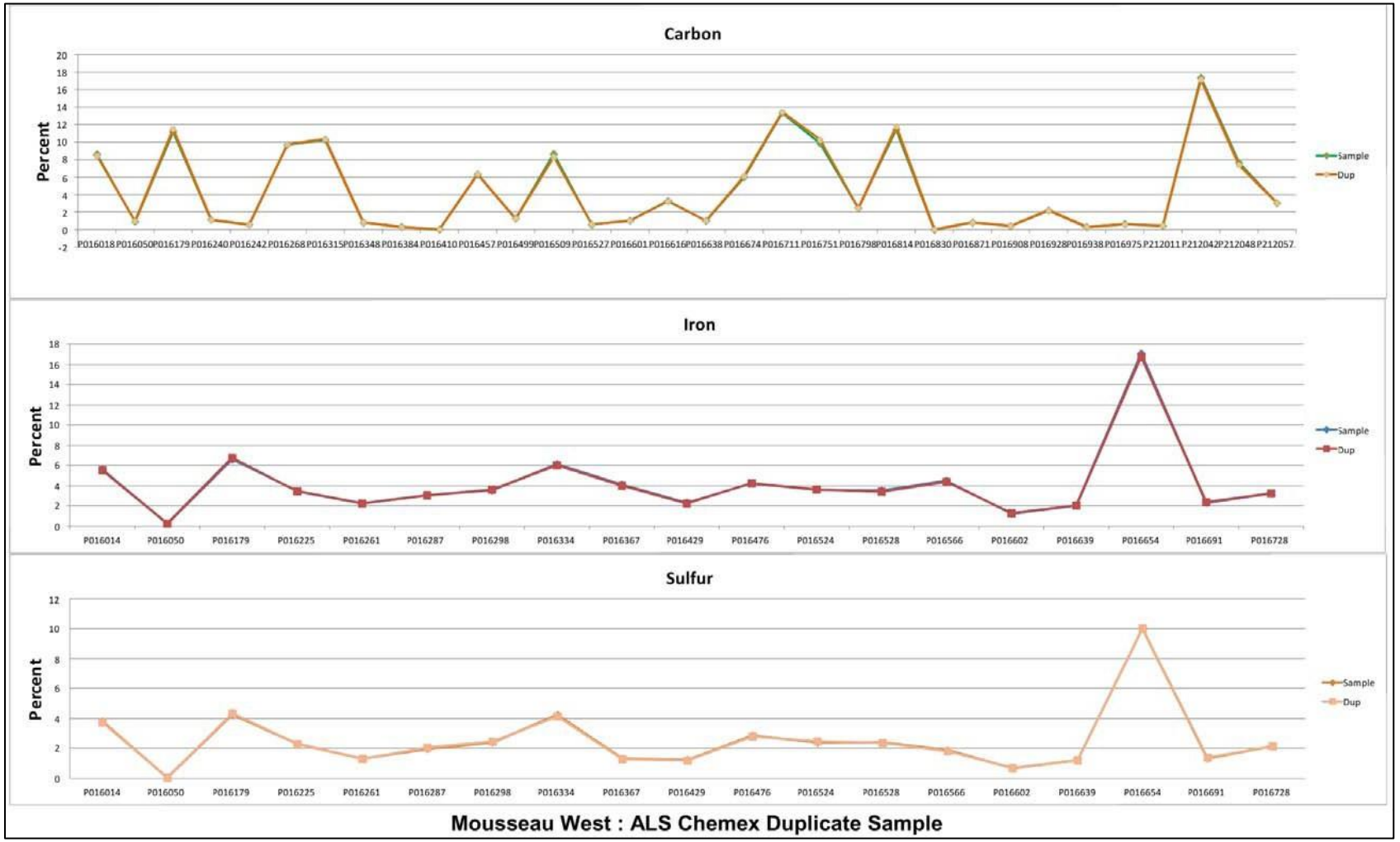


Figure taken from the 2013 Graniz Technical Report.

11.1.3.5 ALS Chemex Blank Samples

During the Graniz drilling program, ALS Chemex added at least one blank sample per assay batch and another blank for each 36 samples in the batch, for a total 84 blank samples.

The blank sample consists of white quartz sand and was inserted within the sample sequence.

Figure 11.5 indicates that the carbon, iron and sulphur values are below or at the detection limits. Therefore, the ALS Chemex blank samples generally confirmed that the sample preparation and assaying process did not encounter any contamination during the laboratory process.

11.1.3.6 ALS Chemex Standard Samples

During the Graniz drilling program, ALS Chemex used two standard samples (SY-4 and PD-1) to control the level of carbon value. In the end, a total of 53 SY-4 standard samples and 54 PD-1 standard samples were added.

Figure 11.6 indicates that carbon values for the SY-4 sample ranged from 0.12% to 0.14%, for a 16% variance, which is considered to be a little too high. The problem is that the carbon content of the ALS Chemex standard material is too low. The 0.02% carbon variance is almost the detection limit.

Figure 11.6 indicates that the carbon values for the PD-1 sample vary from 0.56% to 0.58%, except for one value of 0.54%. Excluding this value, this represents 4% variance, which is acceptable. The carbon variance is once again 0.02%, with the percent variance likely being lower if the standard sample had a higher carbon content.

Graniz with a 0.02% carbon value variance for the ALS Chemex standard, concluded that assay level stability for the ALS Chemex laboratory was good.

11.2 QP COMMENTS

The QP believes that the results of the historical QA/QC program conducted by Graniz was carried out to standards which meet the requirements for using the results derived from the exploration and drilling program as the basis for undertaking a mineral resource estimate.

Figure 11.5
ALS Chemex Blank Samples for the Mousseau West Deposit

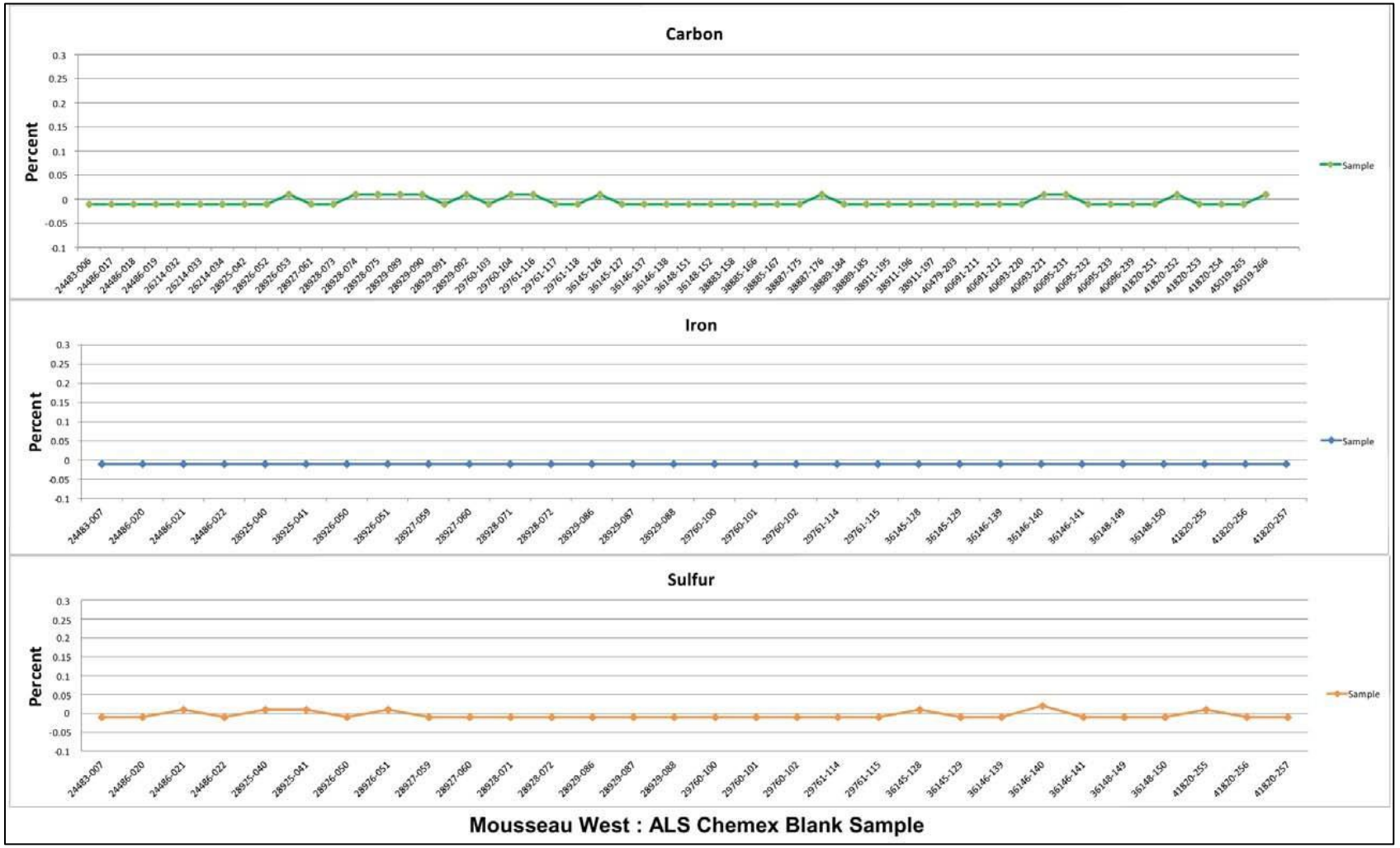


Figure taken from the 2013 Graniz Technical Report.

Figure 11.6
ALS Chemex Blank Samples for the Mousseau West Deposit

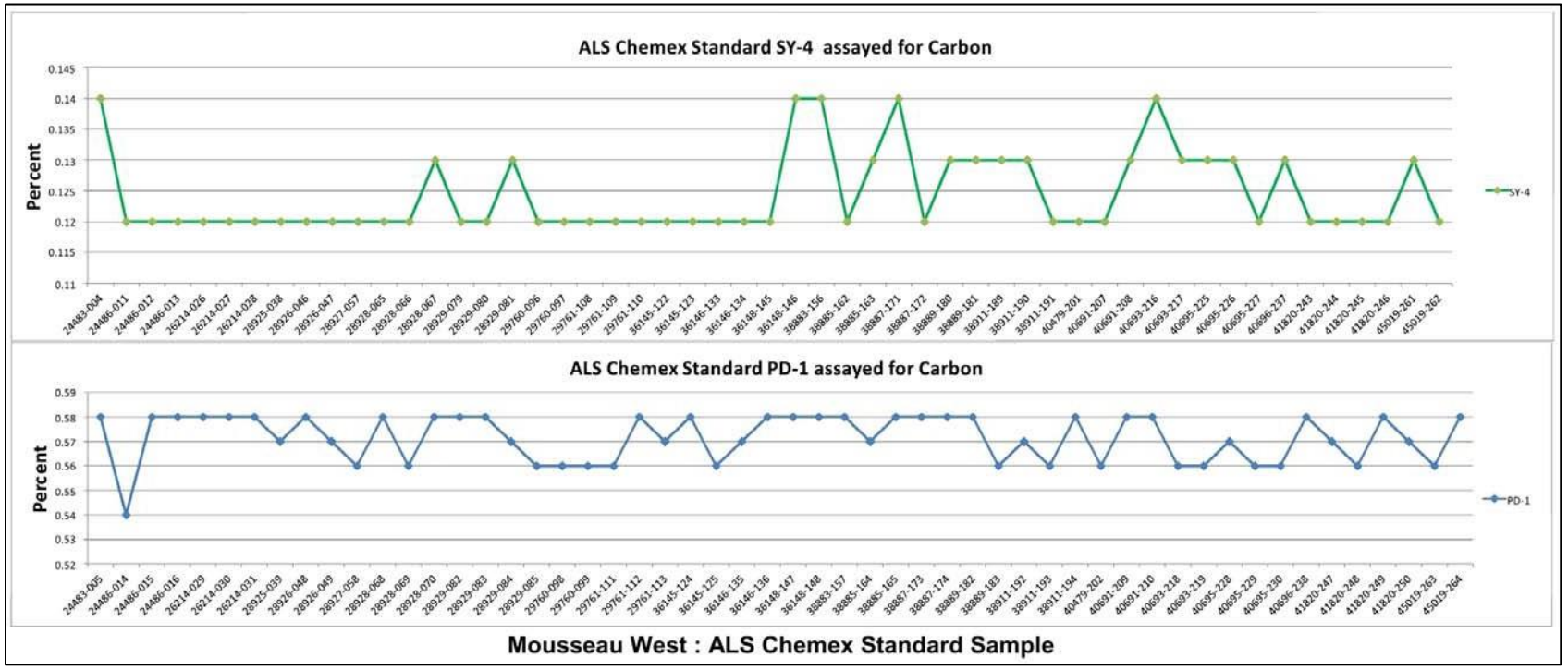


Figure taken from the 2013 Graniz Technical Report.

12.0 DATA VERIFICATION

12.1 SITE VISIT(S)

The site visit to the Mousseau Project was performed on August 31, 2023, by the QP consultant Yvan Bussieres. The day was spent selecting 12 samples from the drill core and reviewing the drill sites. During the visit, a number of drilling sites were visited. Figure 12.1 shows on GPS that the visitor was on the old drill site M-90-71. At this site, the visitor found an old drill pipe, Figure 12.2, corresponding to the orientation and dipping of Hole M-90-71. Figure 12.3 shows on GPS that the visitor was on the 2013 drill site number 145. At this site, the visitor found a wood post stuck in the vertical NQ casing, Figure 12.4, with a flag tied to it. Furthermore, tied to the flag was an aluminium tag, Figure 12.5, embossed with the number of drill hole, Azimuth, dip and length. The others 2013 drill hole sites visited also had a wood post, with flag and aluminium tag, Figure 12.6.

Figure 12.1
GPS Photograph of Drill Site M-90-71

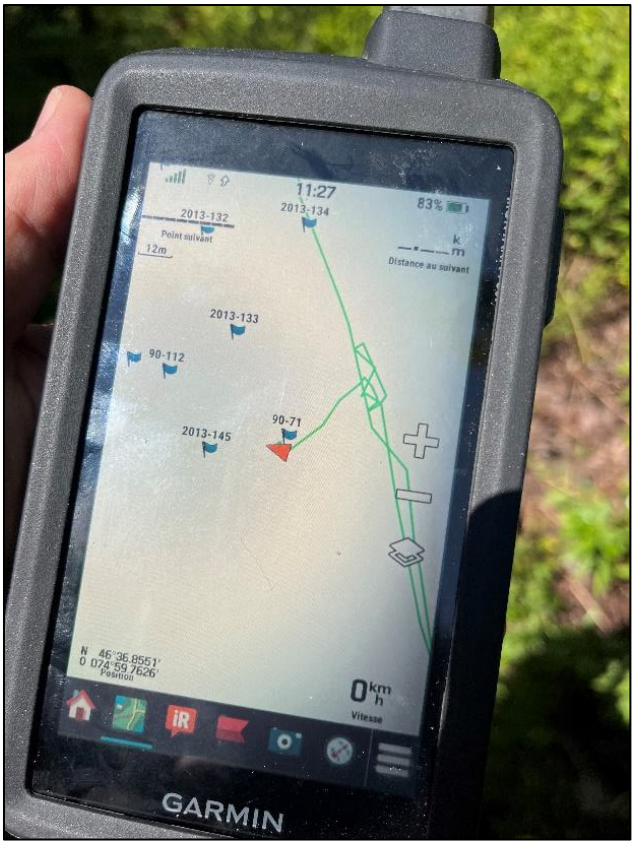


Figure 12.2
Old Casing of Drill Site M-90-71

Figure 12.3
GPS Photograph of Drill Site 2013-145

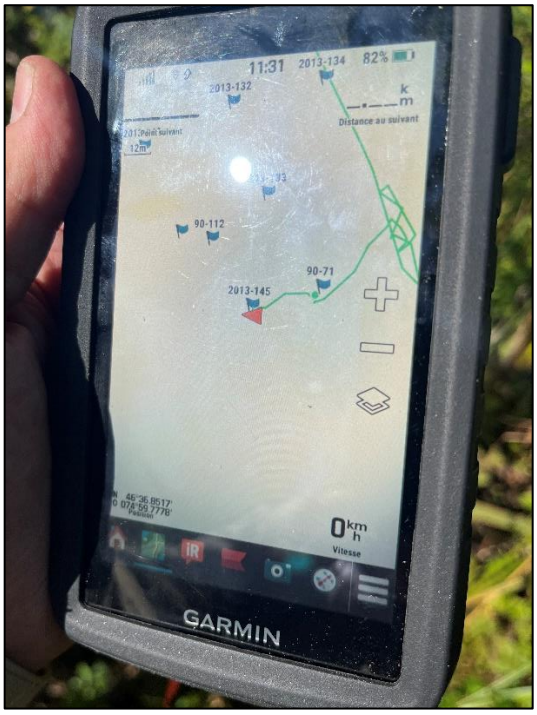


Figure 12.4
Wood Post Placed in the NQ casing of Drill Site 2013-145

Figure 12.5
Aluminium Tag of Drill Site 2013-145

Figure 12.6
Wood Post Placed in the NQ casing of Drill Site 2013-112

During the site visit, the QP, Yvan Bussières, took 12 check samples from the 2013 core stored at Ste-Veronique. The pre-selection of check samples was established by the QP Mr. Antoine Yassa. The pre-selection took into consideration three groups of check samples of low, average and high grades, Table 12.1, distributed throughout the entire deposit. The check samples were cut, put in plastic bag and sealed with a zip tie by the team of Yvan Bussières. These check samples were shipped to SGS Lakefield laboratories at Lakefield, ON, a commercial laboratory that is ISO/IEC 17025 accredited and independent of Northern Graphite. The samples are analyzed by SGS for Graphitic Carbon with IR (Leco) with calcination, HCI leaching and combustion to check and validate the results against those from the 2013 Graniz drilling, Table 12.1.

The graphite results obtained for the drill core samples taken by the QP during the site visit are in line with the sampling results obtained by Graniz drilling in 2013. Therefore, the QP believes that the sampling results obtained by Graniz, through its drilling program, are representative of the graphite mineralization at the Mousseau Project.

The QP considers that there is good correlation between the Graphite (Gr%) assay values in Northern Graphite 2013 database and the independent verification samples collected in August 2023 and analyzed at SGS, Figure 12.7.

The QP also considers that sufficient verification of the Project data has been undertaken and that the supplied data are of good quality and suitable for use in the current mineral resource estimate.

Figure 12.7
Independent Site Visit Results for Graphite Content

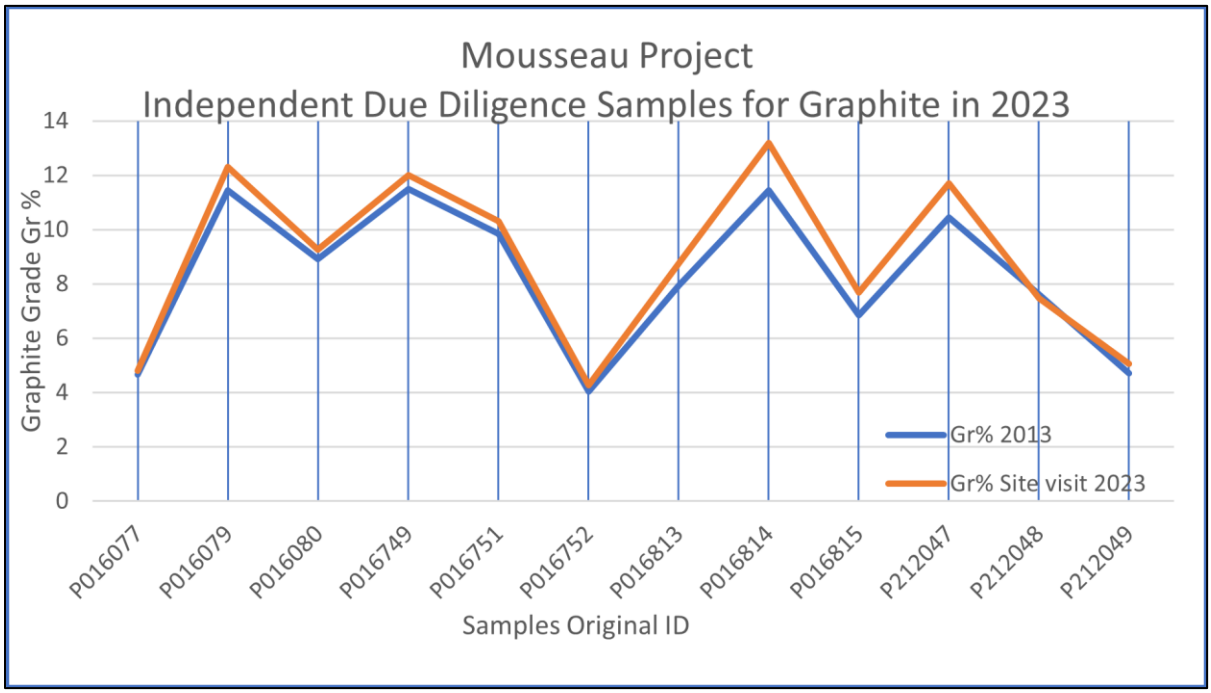


Table 12.1
Check Sample Selection and Assay Results from the 2013 Graniz Drilling with SGS Assays

HOLE-ID	FROM (m)	TO (m)	LENGTH (m)	2013 Gr_%	SGS Gr_%	OLD SAMPLE-ID	NEW SAMPLE-ID	DOMAIN	CLASS
2013-122	96	98	2	4.66	4.8	P016077	C697716	GP1-HW	Low
2013-122	100	102	2	11.45	12.3	P016079	C697717	GP1-HW	High
2013-122	102	104	2	8.91	9.27	P016080	C697718	GP1-HW	Avg
2013-138	144	146	2	11.5	12.0	P016749	C697719	GP4	High
2013-138	146	147.4	1.4	9.84	10.3	P016751	C697720	GP4	Avg
2013-138	147.4	148.8	1.4	4.03	4.28	P016752	C697721	GP4	Low
2013-140	19.2	21	1.8	7.95	8.75	P016813	C697722	GP3	Avg
2013-140	21	23	2	11.45	13.2	P016814	C697723	GP3	High
2013-140	23	25	2	6.84	7.68	P016815	C697724	GP3	Low
2013-144	131	133	2	10.45	11.7	P212047	C697725	GP1-FW	High
2013-144	133	135	2	7.61	7.48	P212048	C697726	GP1-FW	Avg
2013-144	135	137	2	4.7	5.06	P212049	C697727	GP1-FW	Low

12.2 QP Comments Regarding the Database

12.2.1 Data from Graphicor 1989 to 1990

55 holes were drilled on the Mousseau West graphite occurrence in 1989 and 1990. The basic location maps that are available do not clearly establish the precise location of these holes, as Graphicor grids and field references have vanished over the years. As the Graniz drilling program started during winter, the location of the old holes was essentially estimated from these various maps.

After the completion of the 2013 Graniz program, the visit by Yves Bussières succeeded in locating some of the old drill casings from Graphicor program. The location of a number of the 1989-90 drill holes were determined consequently and these have been added to the Project maps and sections.

The location of the Graphicor holes indicate that a number of the 2013 holes drilled by Graniz were twin holes of the Graphicor 1989-90 drilling program. Before including the historical data in the 2013 database, the twin holes were verified. Table 12.2 summarizes the most pertinent geological features found in six pairs of twin holes from the Mousseau West mineralization.

Some of these holes intersected the thicker graphitic horizons, while others were drilled in areas with thin graphitic horizons. In both cases, the stratigraphy of the twin holes was found to be similar, with very comparable graphitic sections. Grades varied from one graphitic section to its twin, but the weighted average of all comparable sections yielded only a 3% difference, which is considered satisfactory.

The stratigraphy intersected by the holes was the main criterion for deciding whether or not to include these data in the current global interpretation.

Table 12.2
Twin Drill Hole Comparison - 1990 Graphicor Holes versus 2013 Graniz Holes

Hole	Section	Distance (m) between holes	Graphitic horizon				Difference - Major Gp sections		Comments
			From (m)	To (m)	Width (m)	Grade (%Gr)	On width	On grade	
M-90-109	13+75W	6.0	7.35	34.85	26.65	5.86			Both holes show similar stratigraphic sequence, host rock, texture
2013-133			6.00	34.50	28.50	7.41	+7%	+26%	and C.A. foliation.
M-89-52	14+25W	4.5	55.45	90.83	35.38	3.76			Both holes show similar stratigraphic sequence, host rock, texture
2013-143			53.80	85.50	31.70	2.41	-10%	-36%	and C.A. foliation. Some M5(1989) is M14(2013).
M-90-88	14+50W	7.5	9.80	50.18	40.38	8.20			Both holes show similar stratigraphic sequence, host rock, texture
2013-142			16.50	59.30	42.80	9.05	+6%	+10%	and C.A. foliation, including a pegmatitic horizon at 50m.
M-90-93	15+25W	6.2	24.08	74.70	50.62	8.12			Both holes show similar stratigraphic sequence, host rock, texture
2013-137			27.00	78.50	51.50	9.16	+2%	+13%	and C.A. foliation, including a central coarse nodular section.
M-90-95 2013-38	15+75W	3.0	35.25 35.40	40.22 38.50	4.97 3.10	7.48 7.19	thin, not considered		The first two thin graphitic marble horizons were intersected by both drill holes. (a 3-5m at 7%Gr and a thin 1m section at +10%Gr).
M-90-95 2013-138			49.00 49.50	50.00 51.10	1.00 1.60	10.57 14.20	thin, not considered		The stratigraphy is similar, up to the contact with the third graphitc section. In H2013-138, a major fault zone with pegmatitic material, smoky quartz
M-90-95 2013- 138			69.29 67.60	84.22 74.40	14.93 Major Fault Zone	11.06	fault, not possible to compare		and fluorine (7m) has developed probably along the favourable graphitic contact. Other graphite sections are observed in H2013-138 but deeper than the 90-95 hole investigated.
M-90-95	15+75W	6.5	46.63	48.80	2.17	9.45			Same thin graphitic horizon within biotite quartzo-feldspathic gneiss.
2013-127			46.90	49.50	2.60	10.31	thin, not considered		Similar stratigraphic sequence and C.A. foliation till the bottom of hole
									90-96 at 60.35 m.
Weighted average of the difference							nil	+3%	Same graphitic horizons total and slight 3% increase in grade.

Table taken from the 2013 Graniz Technical Report.

13.0 MINERAL PROCESSING AND METALLURGICAL TESTING

13.1 INTRODUCTION

Historical metallurgical testwork has been conducted on samples on samples taken from the Mousseau deposits.

13.2 HISTORIC METALLURGICAL TESTWORK

13.2.1 1990 Bulk Sample

In 1990, after the first major drilling program, a 12-tonne sample was collected in a pit on Mousseau West, at the site of Hole 90-53 (GM 52017). The material was sent to the Centre de Recherche Minérale in Québec City, but no test results were made public.

13.2.2 1992 Drill Core Sample

In 1992, eleven samples constituted from drill core intersections were processed at the Graphicor mill, which was in operation at the time at Lac aux Bouleaux, south of St-Aimé-du-lac-des-Iles. Although no details are available concerning the test procedure. The eleven samples gave the following results, on average:

- 41% recovery of +100 mesh 95% Gr.
- 59% recovery of -100 mesh 95% Gr.

And the best result obtained was:

- 60.3% recovery of +100 mesh 97% Gr.
- 39.7% recovery of -100 mesh 97% Gr.

The historical results appear to be reasonable for the type of mineralization concerned but should not be considered representative of the entire deposit, as no details were available on sample selection and preparation.

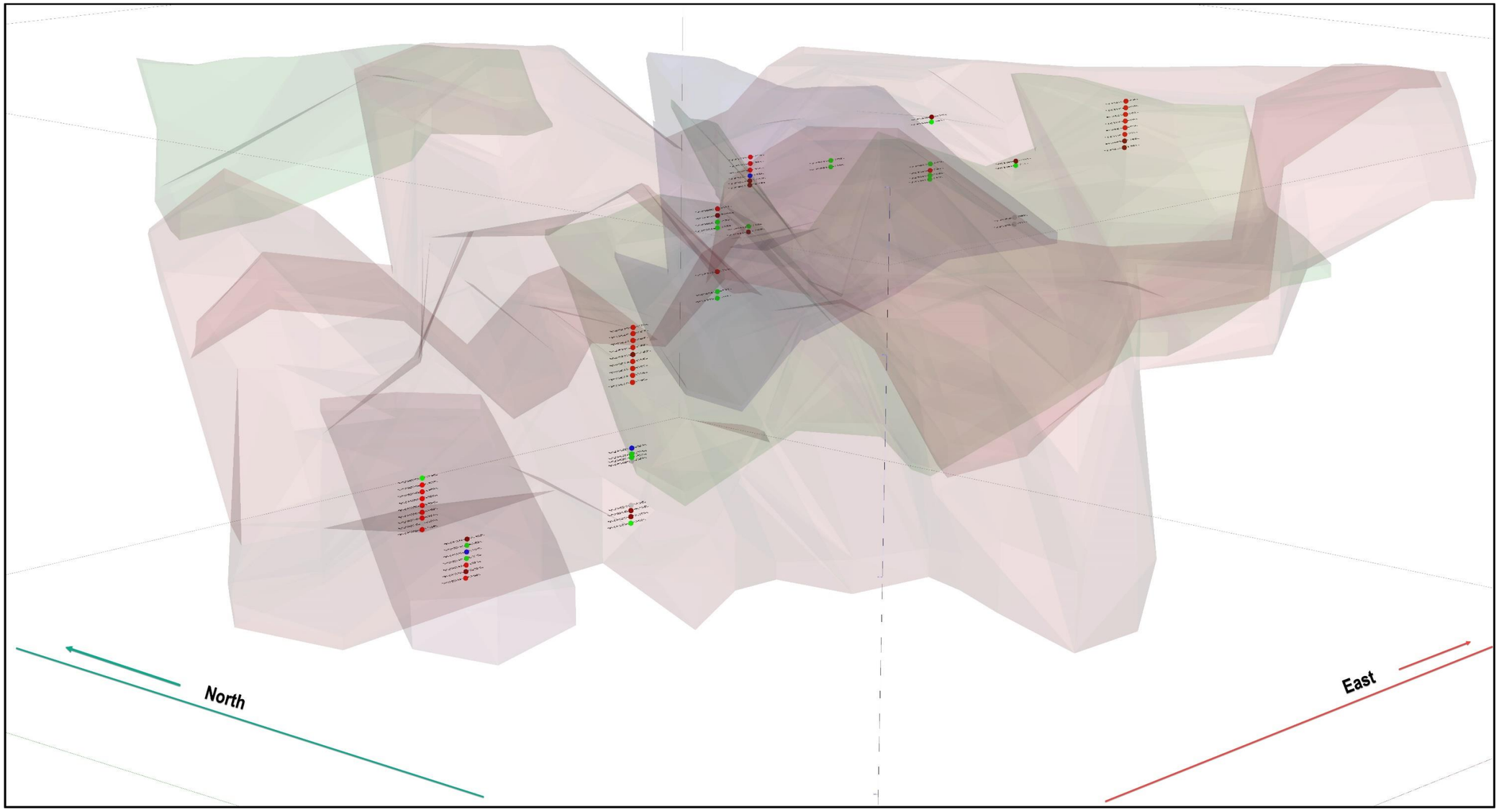
13.3 NORTHERN GRAPHITE TESTWORK

13.3.1 Composite Selection

Scoping level metallurgical work was carried out on a composite that was generated from the available historic Mousseau drill core. Figure 13.1 shows the locations of the samples.

The composite that was generated comprised 68 individual drill core intervals, for a total mass of approximately 150 kg. To ensure a good representation of the mineral resource, the Mousseau West mineralization zone was split into four quadrants and 35 kg to 40 kg of material were extracted from each quadrant. The drill core intervals were selected to include a range of grades observed in the resource with an average grade of approximately 8.00% Gr. A total of 68 drill core interval from 9 drill holes were selected to generate the composite for scoping level testing.

Figure 13.1
Location Showing Approximate Sample Locations for the Samples that comprise the Metallurgical Composite



13.3.2 SGS Testwork

13.3.2.1 Sample Preparation and Characterization

The entire composite was crushed to -6 mesh, homogenized, and split into two-kilogram test charges. A representative head sample was extracted and submitted for chemical analysis.

The results of the total carbon, graphitic carbon, and sulphur analyses are shown in Table 13.1. The large difference between the graphitic carbon grade of 7.73% Gr and total carbon grade of 11.9% $C_{(TOTAL)}$ suggests the presence of significant carbonate carbon. This would necessitate the use of the more complex graphitic carbon analysis on the high mass tailings streams to provide acceptable mass balance results.

Table 13.1
Assay Values for the Total Carbon, Graphitic Carbon, and Sulphur Analysis

Assays (%)		
$C_{(TOTAL)}$	Gr	S
11.9	7.73	3.02

The results of an ICP and a whole rock analysis are presented in Table 13.2 and Table 13.3, respectively. The most abundant elements in the Mousseau Project mineralization are silicon, calcium, aluminum, and iron. Despite the higher sulphur grade of 3.02% S, the mineralization may contain enough calcium oxides and/or carbonates to provide sufficient neutralizing potential to render the tailings non-acid generating.

Table 13.2
ICP Analysis

Assays (g/t)																		
Ag	As	Ba	Be	Bi	Cd	Co	Cu	Li	Mo	Ni	Pb	Sb	Se	Sn	Sr	Tl	Y	Zn
<2	<30	208	1.11	<20	<2	20	37	<20	<8	35	<20	<10	<30	<20	239	<30	17.3	<10

Table 13.3
Whole Rock Analysis

Assays (%)													
Sio2	Al_2O_3	FE_2O_3	MgO	CaO	Na_2O	K_2O	TiO_2	P_2O_5	MnO	Cr_2O_3	V_2O_5	LOI	Sum
31.0	6.15	7.27	3.07	24.2	0.37	2.20	0.47	0.30	0.08	0.01	<0.01	17.9	93

13.3.2.2 Rougher Flotation

A single rougher flotation test MW3 was carried out to establish the rougher flotation kinetics and to perform a size fraction analysis on the rougher concentrate. The test charge was ground to the LDI plant feed size of approximately P_{80} = 280 micron and then subjected to rougher flotation. The flotation time replicated the LDI lab procedure, but reagent dosages were adjusted based on observations made during the test.

A summary of the mass balance of the rougher test is provided in Table 13.4. The overall graphite recovery into the rougher concentrate of 97.3% was high and in line with similar projects. The combined rougher concentrate grade of 26.3% $C_{(TOTAL)}$ was relatively low, especially when considering the head grade of almost 8.0% Gr.

Table 13.4
Mass Balance of MW3

Combined Products	%	Assays, % C(t,g)	% Distribution C (t,g)
Rougher Conc. 1	6.9	58.5	45.0
Rougher Conc. 1+2	18.9	40.8	86.1
Rougher Conc. 1-3	27.6	30.3	93.7
Rougher Conc. 1-4	30.5	28.0	95.8
Rougher Conc. 1-5	33.1	26.3	97.3
Ro Tail	66.9	0.36	2.7
Head (calc.)	100.0	8.94	100

Gr

The combined rougher concentrate was subjected to a size fraction analysis (SFA) and the results are presented in Table 13.5. While the concentrate yielded a high mass recovery of 71.7% into the +80 mesh size fractions, the grades of all size fractions were very low ranging between 18.1% $C_{(TOTAL)}$ for the -32/+48 mesh size fraction and 45.6% $C_{(TOTAL)}$ for the -100/+200 mesh size fraction.

Table 13.5
Size Fraction Analysis of MW3

Size Fraction	Weight %	Assay, % $C_{(TOTAL)}$	% Distribution $C_{(TOTAL)}$
+32 mesh	2.1	29.6	2.3
+48 mesh	31.5	18.1	20.8
+65 mesh	30.4	23.3	25.9
+80 mesh	7.7	29.6	8.3
+100 mesh	10.5	38.5	14.8
+200 mesh	12.0	45.6	20.0
-200 mesh	5.8	37.4	7.9
Total Concentrate	100.0	27.4	100.0

The results of the size-by-size analysis of the rougher concentrate is relevant since the LDI flowsheet incorporates classification of the rougher concentrate at 500 and 300 microns followed by spiral

separation of the screen overflow to recover a final concentrate. Given the low grades of the +32 mesh and +48 mesh size fractions, this strategy will likely not be successful for the Mousseau West mineralization.

13.3.2.3 Primary Cleaner Flotation

Two primary cleaner flotation tests were carried out to determine the efficiency of conventional polishing mills. The two tests were identical except for the polishing grind time of the rougher concentrate. Test MW4 employed 20 minutes of polishing followed by three stages of cleaning while test MW5 was conducted with 40 minutes of polishing. The results of the mass balances of the two tests are summarized in Table 13.6.

Test MW4 with the shorter polishing time produced a combined concentrate grade of 71.3% $C_{(TOTAL)}$ at 89.3% open circuit carbon recovery. The grade improved significantly to 85.2% $C_{(TOTAL)}$ in test MW5 with twice the polishing time. The carbon recovery remained almost identical at 89.6%.

Table 13.6
Mass Balance of Primary Cleaner Tests MW4 and MW5

Test	Combined Products	%	Assays, % C(t, g)	% Distribution C(t, g)
MW4 20 min. Polish	3rd Clnr Conc.	11.5	71.3	89.3
	2nd Clnr Conc.	12.8	64.8	90.1
	1st Clnr Conc.	15.6	53.9	91.3
	Rougher Conc.	35.1	25.6	97.8
	Rougher Tails	64.9	0.31	2.2
	Head (calc.)	100.0	9.21	100.0
MW5 40 min. Polish	3rd Clnr Conc.	9.7	85.2	89.6
	2nd Clnr Conc.	10.5	79.3	90.1
	1st Clnr Conc.	13.9	60.7	91.3
	Rougher Conc.	34.6	26.0	97.4
	Rougher Tails	65.4	0.37	2.6
	Head (calc.)	100.0	9.25	100.0

Gr

The 3rd cleaner concentrate of both tests was submitted for an SFA. The mass recovery and total carbon grades of the various size fractions are depicted in Figure 13.2 and Figure 13.3, respectively.

As the polishing time was increased from 20 to 40 minutes, the mass recovery into all +325 mesh size fractions decreased slightly. However, the mass reduction was less than 1% in all size fractions except for the -100/+150 mesh product. As suggested by the combined concentrate grades, the total carbon grades of each size fraction increased at the longer polishing times. The grade gains ranged from as little as 0.2% for the -325-mesh product to as high as 25.6% for the -100/+150 mesh size fraction.

Overall, the polishing mill followed by cleaner flotation proved a suitable approach to upgrade a low-grade rougher concentrate to an intermediate concentrate that only requires limited secondary processing.

Figure 13.2
: SFA Mass Distribution (MW4 and MW5)

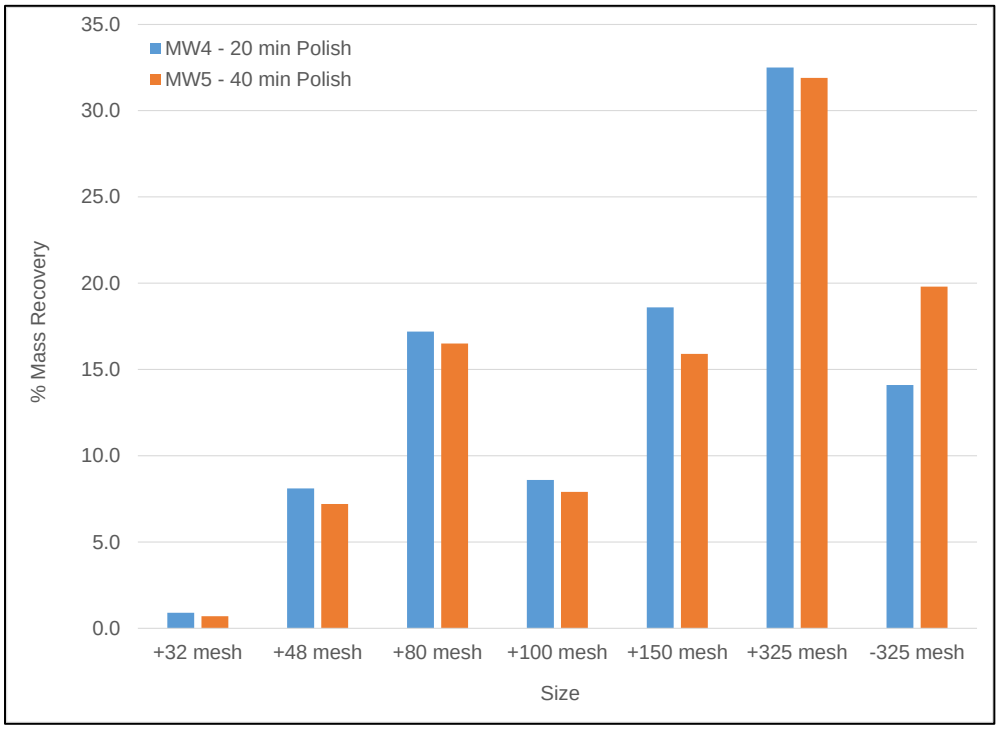
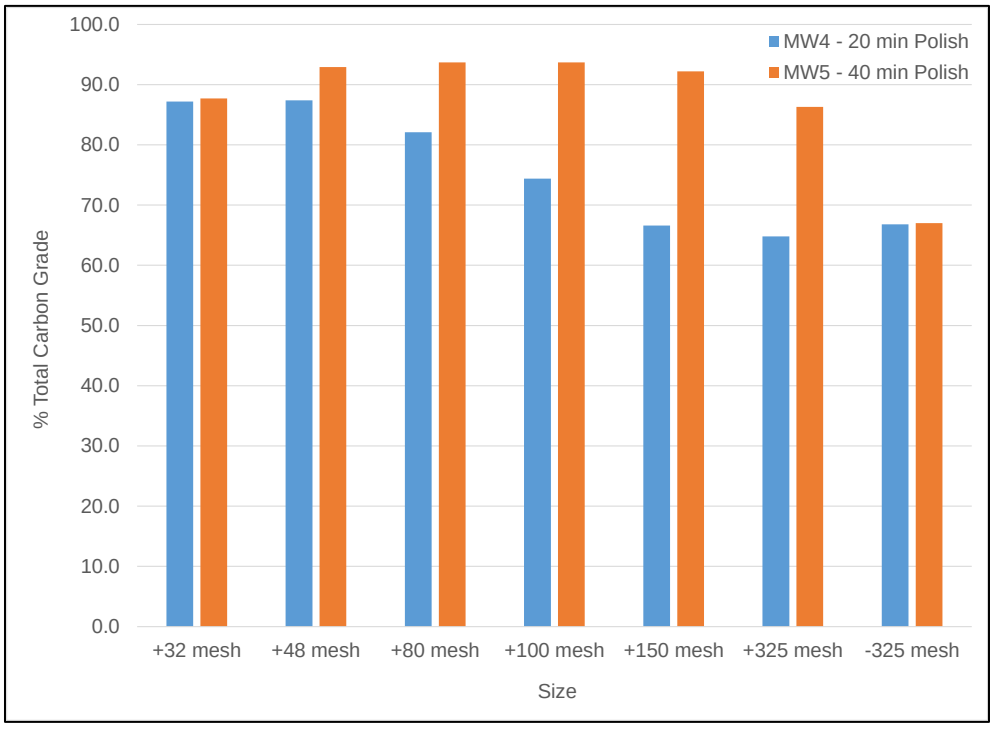


Figure 13.3
SFA Total Carbon Grade Distribution (MW4 and MW5)

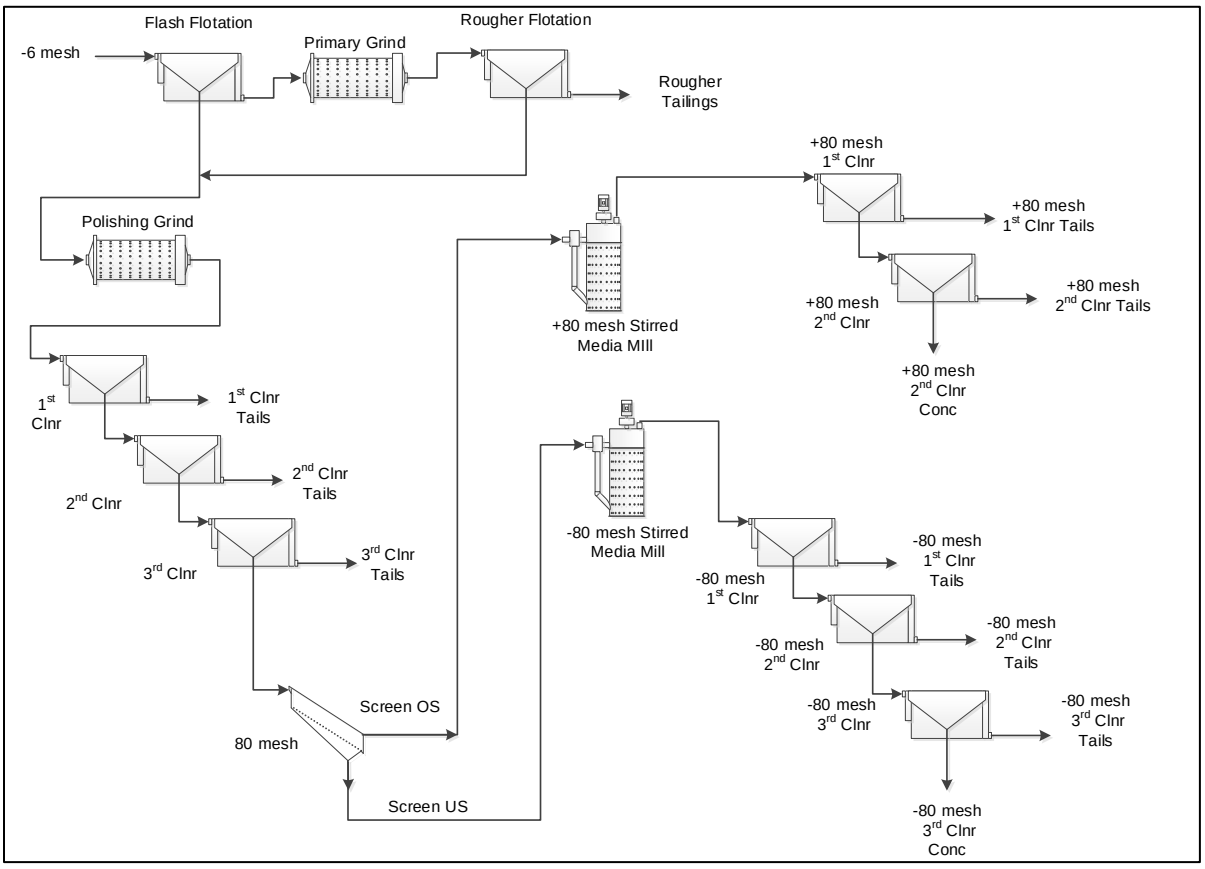


13.3.2.4 Secondary Cleaner Flotation

Two secondary cleaner flotation tests were conducted to demonstrate the flotation performance of the Mousseau West mineralization to personnel from Northern Graphite's plant at Lac des Isles that visited the SGS Lakefield site. These tests were carried out before the rougher and primary cleaner tests. While this is typically not the approach selected for process development programs, the tests were conducted for demonstration purposes. The flowsheet and conditions of the two tests were established based on experience with similar projects and observations made during the tests. Two different flowsheet philosophies were evaluated.

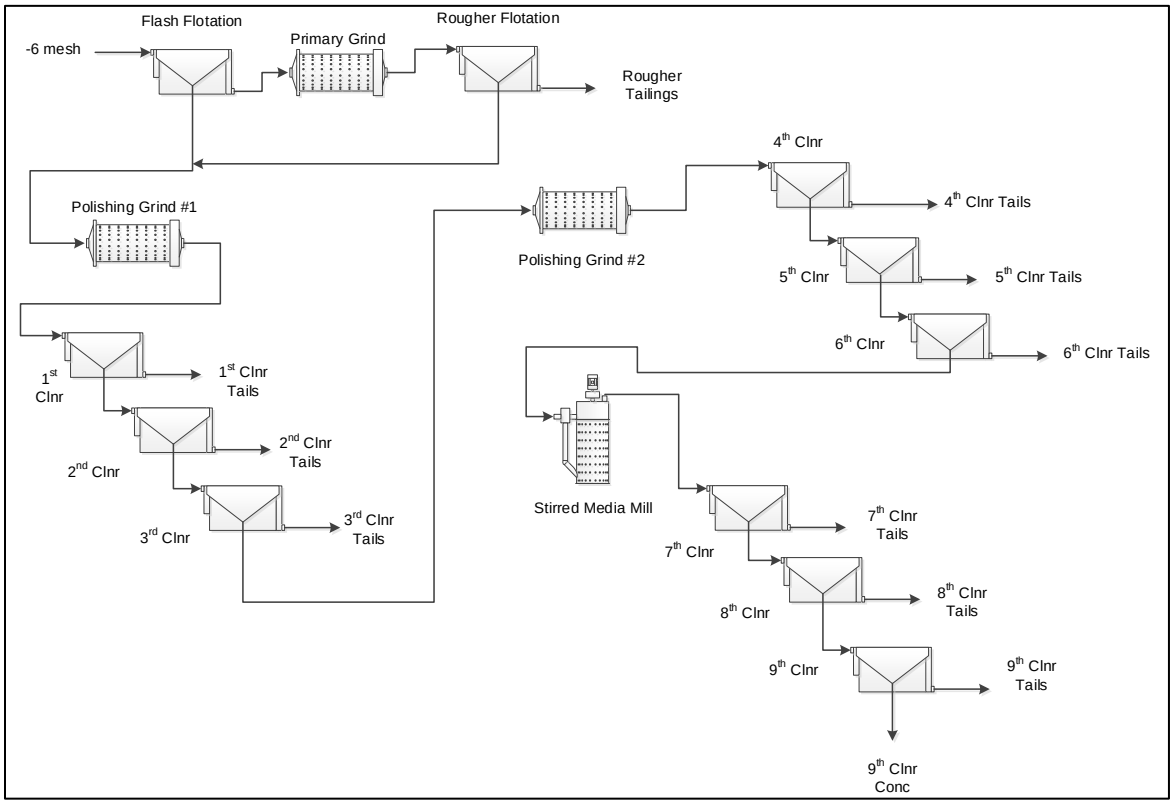
The first test, MW1, consisted of flash/rougher, primary cleaning, classification at 80 mesh and then separate stirred media mill grinding and cleaning of the two size fractions. The flowsheet that was used in MW1 is depicted in Figure 13.4.

Figure 13.4
Split Cleaner Flowsheet (MW1)



The second test, MW2, employed the identical flowsheet up to the primary cleaning stage, but then continued with upgrading the intermediate concentrate in two additional stages of grinding and cleaning without classification. The second mill stage was conducted with a polishing mill and the third milling step with a stirred media mill. The flowsheet of test MW2 is presented in Figure 13.5.

Figure 13.5
Sequential Cleaner Flowsheet



A summary of the two cleaner flowsheets is provided in Table 13.7. The split flowsheet produced a combined concentrate grade of 95.7% $C_{(TOTAL)}$ at an open circuit graphite recovery of 85.8%. In contrast, the sequential flowsheet resulted in a combined concentrate grade of 98.6% $C_{(TOTAL)}$ at 93.8% open circuit graphite recovery. Since the grade target is typically 95-96% $C_{(TOTAL)}$, the 7th cleaner concentrate would be the most suitable product for most graphite applications. This product contained 94.5% of the graphite at a grade of 96.4% $C_{(TOTAL)}$.

Table 13.7
Mass Balance of Split and Sequential Flowsheets (MW1 and MW2)

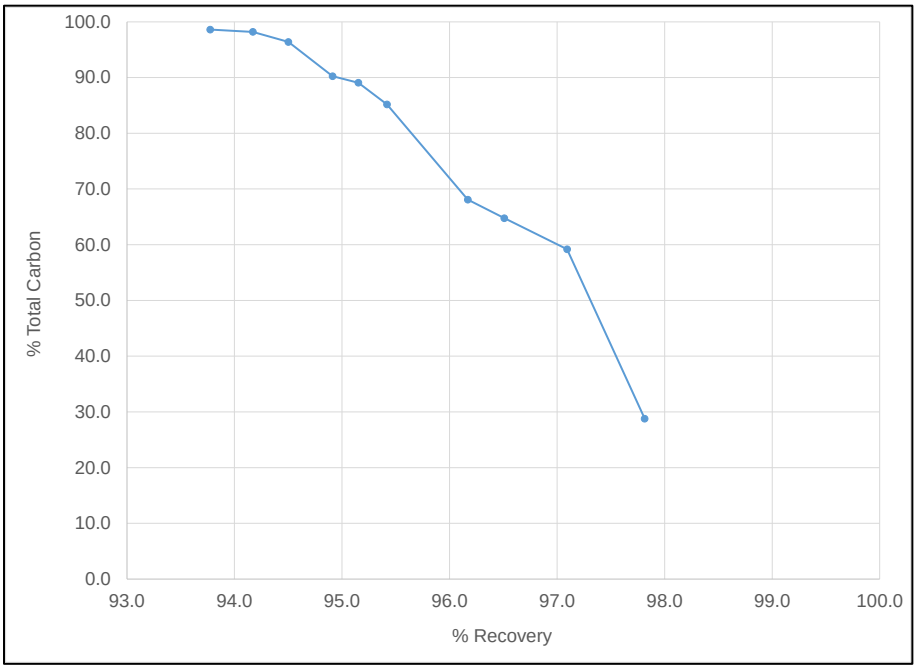
Test	Combined Products	%	Assay, % C(t, g)	% Distribution C(t, g)
MW1 Split Cleaner Flowsheet	Combined Conc.	8.4	95.7	85.8
	+80 mesh Feed	3.6	85.8	32.9
	-80 mesh Feed	7.5	77.1	62.2
	3rd Cleaner Conc.	11.1	79.9	95.1
	2nd Cleaner Conc.	11.7	76.4	95.9
	1st Cleaner Conc.	13.2	68.2	96.8
	Flash and Rougher Conc.	27.9	33.0	98.6
	Rougher Tails	72.1	0.18	1.4
	Head (calc.)	100.0	9.33	100.0

Test	Combined Products	%	Assay, % C(t, g)	% Distribution C(t, g)
MW2 Sequential Cleaner Flowsheet	9th Clnr. Conc.	8.3	98.6	93.8
	8th Clnr. Conc.	8.3	98.2	94.2
	7th Clnr. Conc.	**8.5**	**96.4**	**94.5**
	6th Clnr. Conc.	9.1	90.2	94.9
	5th Clnr. Conc.	9.3	89.1	95.2
	4th Clnr. Conc.	9.7	85.2	95.4
	3rd Clnr. Conc.	12.3	68.1	96.2
	2nd Clnr. Conc.	13.0	64.8	96.5
	1st Clnr. Conc.	14.3	59.2	97.1
	Flash and Rougher Conc.	29.6	28.8	97.8
	Rougher Tails	70.4	0.27	2.2
	Head (calc.)	100.0	8.70	100.0

Gr

The total carbon grade versus open circuit recovery curve of test MW2 is depicted in Figure 13.6. Since open circuit flotation tests treat the intermediate tailings as final tailings for mass balance calculations, the tests generally understate expected graphite recovery. Typically, 50% of the carbon units that report to intermediate tailings that are then recycled during closed circuit operation will report to the final concentrate. Assuming that the 7th cleaner concentrate is the final product, the 6th, 5th, 3rd, and 2nd cleaner tailings are circulated. These four products contained 1.4% of the total graphite. If 50% of these graphite units were to report to the 7th cleaner concentrate, the projected overall closed-circuit recovery of the 7th cleaner concentrate would be 95.2% at a slightly reduced total carbon grade of 96.0% $C_{(TOTAL)}$ to account for some of the less liberated flakes reporting to the 7th cleaner concentrate.

Figure 13.6
Grade-Recovery Curve of Sequential Cleaner Test MW3



The final concentrates of the two secondary cleaner tests were submitted for a size fraction analysis. The mass recovery and total carbon grades of the various size fractions are shown in Figure 13.7 and Figure 13.8, respectively.

The mass recovery into the size fractions was consistent between the two tests. The split flowsheet produced a slightly higher percentage of +32 mesh and -32/+48 mesh concentrate mass, but the difference was 1.3% or less.

The sequential flowsheet produced consistently higher total carbon grades in all seven size fractions. Even the -200-mesh product still graded 97.1% $C_{(TOTAL)}$ and the highest value of 98.7% $C_{(TOTAL)}$ was achieved for the -150/+200 mesh product.

Based on the overall mass balance and the size fraction analysis, the sequential flowsheet appears to be more suitable for the Mousseau West mineralization. This conclusion is based on a very limited number of tests and proper flowsheet development will have to be conducted. Nevertheless, the ability to produce a high-grade concentrate at a high graphite recovery and good flake size distribution with very few tests suggest a good metallurgical response of the Mousseau West mineralization.

Figure 13.7
SFA Mass Distribution (MW1 and MW2)

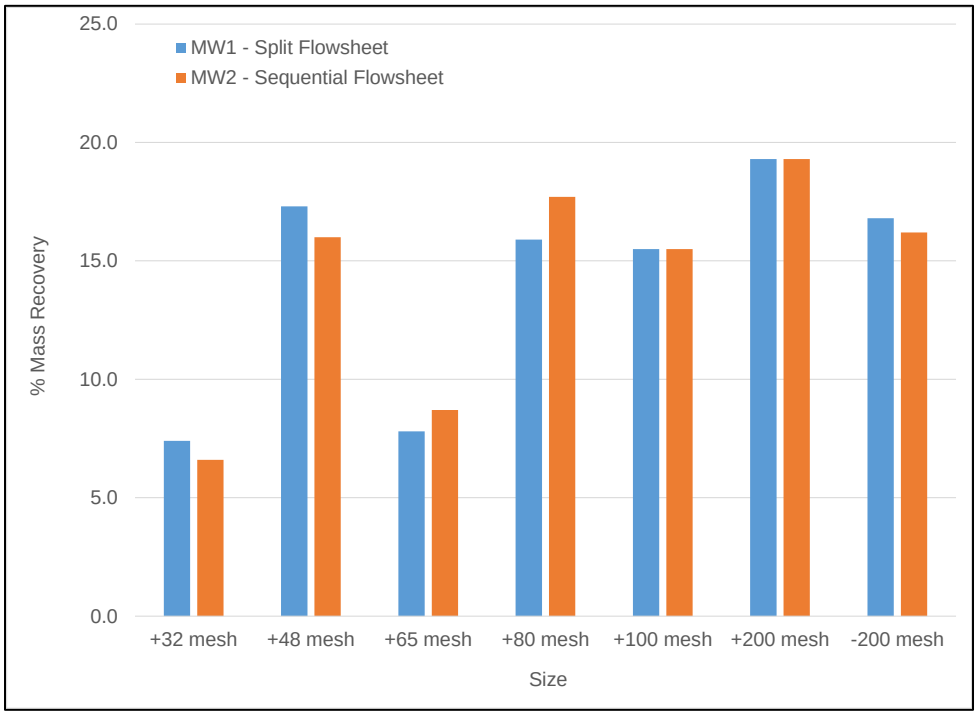
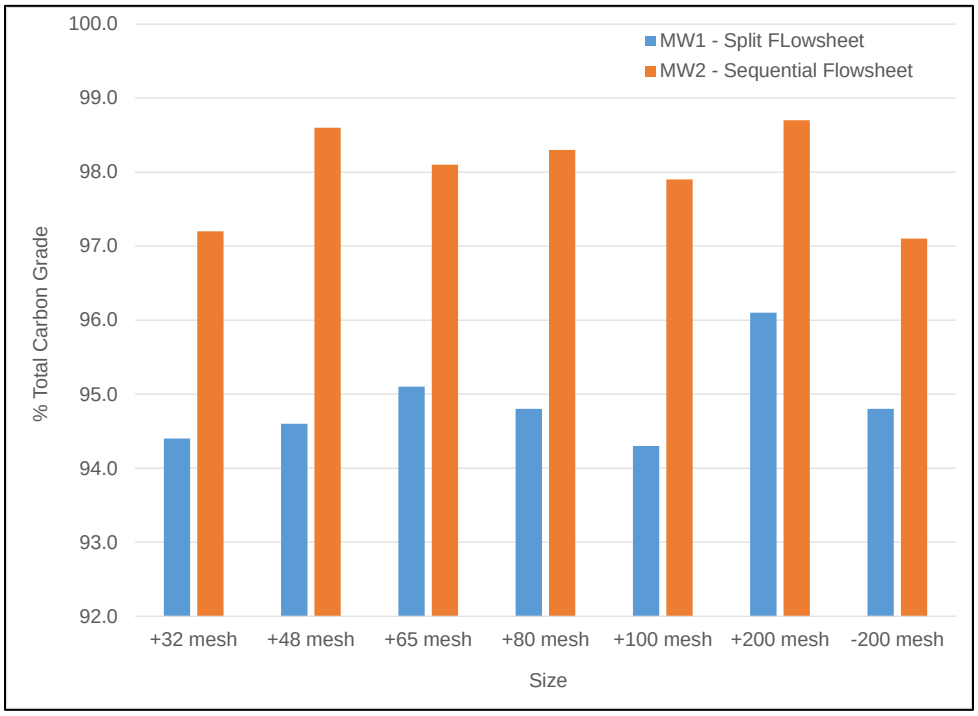


Figure 13.8
SFA Total Carbon Grade Distribution (MW1 and MW2)



13.4 NORTHERN GRAPHITE TESTS

Northern Graphite performed tests on the Mousseau West composite at its Lac des Isles plant to benchmark it against the LDI. Only rougher kinetics tests have been completed to-date, and no size fraction analysis is available.

Since the test products were analyzed in-house only, the results are not included in this Technical Report.

14.0 MINERAL RESOURCE ESTIMATES

14.1 General Information

The mineral resource estimate discussed herein has been performed in conformity with generally accepted CIM "Estimation of Mineral Resource and Mineral Reserves Best Practices" guidelines. Mineral resources are not mineral reserves and do not have demonstrated economic viability. There is no guarantee that all or any part of the mineral resource will be converted into mineral reserve. Confidence in the estimate of Inferred mineral resources is insufficient to allow the meaningful application of technical and economic parameters or to enable an evaluation of economic viability worthy of public disclosure. Further infill and exploration drilling may result in changes to subsequent mineral resource estimates.

All mineral resource estimation work reported herein was conducted by Antoine R. Yassa, P.Geo., an independent Qualified Person in terms of NI 43-101, from information and data supplied by Yvan Bussières and from an original database in Excel format used as the basis for the prior 2013 Technical Report. Mineral resource modelling and estimation were carried out using Gemcom modelling software.

14.2 CIM Resource Definitions and Classifications

All resource estimates presented in a Technical Report must follow one of the recognized international definitions and standards for mineral resource and reserve estimates. This Technical Report uses the current CIM definitions and standards for mineral resources and reserves which were adopted by the CIM council on May 10, 2014, which includes the resource definitions reproduced below:

> *"Mineral Resources are sub-divided, in order of increasing geological confidence, into Inferred, Indicated and Measured categories. An Inferred Mineral Resource has a lower level of confidence than that applied to an Indicated Mineral Resource. An Indicated Mineral Resource has a higher level of confidence than an Inferred Mineral Resource but has a lower level of confidence than a Measured Mineral Resource."*
>
> *"A Mineral Resource is a concentration or occurrence of solid material of economic interest in or on the Earth's crust in such form, grade or quality and quantity that there are reasonable prospects for eventual economic extraction."*
>
> *"The location, quantity, grade or quality, continuity and other geological characteristics of a Mineral Resource are known, estimated or interpreted from specific geological evidence and knowledge, including sampling."*
>
> *"Material of economic interest refers to diamonds, natural solid inorganic material, or natural solid fossilized organic material including base and precious metals, coal, and industrial minerals."*
>
> *"The term Mineral Resource covers mineralization and natural material of intrinsic economic interest which has been identified and estimated through exploration and sampling and within which Mineral Reserves*

may subsequently be defined by the consideration and application of Modifying Factors."

"Inferred Mineral Resource"

"An Inferred Mineral Resource is that part of a Mineral Resource for which quantity and grade or quality are estimated on the basis of limited geological evidence and sampling. Geological evidence is sufficient to imply but not verify geological and grade or quality continuity."

"An Inferred Mineral Resource has a lower level of confidence than that applying to an Indicated Mineral Resource and must not be converted to a Mineral Reserve. It is reasonably expected that the majority of Inferred Mineral Resources could be upgraded to Indicated Mineral Resources with continued exploration."

"An Inferred Mineral Resource is based on limited information and sampling gathered through appropriate sampling techniques from locations such as outcrops, trenches, pits, workings and drill holes. Inferred Mineral Resources must not be included in the economic analysis, production schedules, or estimated mine life in publicly disclosed Pre-Feasibility or Feasibility Studies, or in the Life-of-mine plans and cash flow models of developed mines. Inferred Mineral Resources can only be used in economic studies as provided under NI 43-101."

"Indicated Mineral Resource"

"An Indicated Mineral Resource is that part of a Mineral Resource for which quantity, grade or quality, densities, shape and physical characteristics are estimated with sufficient confidence to allow the application of Modifying Factors in sufficient detail to support mine planning and evaluation of the economic viability of the deposit."

"Geological evidence is derived from adequately detailed and reliable exploration, sampling and testing and is sufficient to assume geological and grade or quality continuity between points of observation."

"An Indicated Mineral Resource has a lower level of confidence than that applying to a Measured Mineral Resource and may only be converted to a Probable Mineral Reserve."

"Mineralization may be classified as an Indicated Mineral Resource by the Qualified Person when the nature, quality, quantity and distribution of data are such as to allow confident interpretation of the geological framework and to reasonably assume the continuity of mineralization. The Qualified Person must recognize the importance of the Indicated Mineral Resource category to the advancement of the feasibility of the project. An Indicated Mineral Resource estimate is of sufficient quality to support a Pre-Feasibility Study which can serve as the basis for major development decisions."

"Measured Mineral Resource"

> *"A Measured Mineral Resource is that part of a Mineral Resource for which quantity, grade or quality, densities, shape, and physical characteristics are estimated with confidence sufficient to allow the application of Modifying Factors to support detailed mine planning and final evaluation of the economic viability of the deposit."*
>
> *"Geological evidence is derived from detailed and reliable exploration, sampling and testing and is sufficient to confirm geological and grade or quality continuity between points of observation.*
>
> *A Measured Mineral Resource has a higher level of confidence than that applying to either an Indicated Mineral Resource or an Inferred Mineral Resource. It may be converted to a Proven Mineral Reserve or to a Probable Mineral Reserve."*
>
> *"Mineralization or other natural material of economic interest may be classified as a Measured Mineral Resource by the Qualified Person when the nature, quality, quantity and distribution of data are such that the tonnage and grade or quality of the mineralization can be estimated to within close limits and that variation from the estimate would not significantly affect potential economic viability of the deposit. This category requires a high level of confidence in, and understanding of, the geology and controls of the mineral deposit."*

14.3 CIM Estimation of Mineral Resources Best Practices

The QPs have used the CIM Estimation of Mineral Resources and Mineral Reserves Best Practices Guidelines which were adopted by the CIM Council on November 29, 2019, in estimating the Mineral Resources contained within the Mousseau Project. The November, 2019 guidelines supersede the previous 2003 CIM Best Practices Guidelines.

14.4 Mineral Resource Database and Wireframes

14.4.1 Database

All data were provided in the form of Excel files by Yvan Bussières. This information was generated from the previous drilling program and Technical Report prepared for Graniz in September 2013. The database used for the mineral resource estimate discussed herein contains results from 85 diamond drill holes for a total of 1,727 drill core assays. 28 holes (including one abandoned hole) were drilled in 2013 with 1,019 assay samples and 57 holes were drilled in 1989 and 1990 with 708 assay samples. All samples included C% (graphitic carbon) assays but only 684 were assayed for iron (Fe) and sulphur (S).

Industry standard validation checks were completed on the supplied databases. The typical validation procedure for a mineral resource database includes checking for inconsistencies in naming conventions or analytical units, duplicate entries, interval, length or distance values less than or equal to zero, blank or zero-value assay results, out-of-sequence intervals, intervals or distances greater than

the reported drill hole length, inappropriate collar locations, and missing interval and coordinate fields. No significant validation errors were identified by the QP during the validation process. The entire database was not verified for all historical and 2013 assay results as the data had been verified previously by Yvan Bussières during the preparation of the 2013 Technical Report.

Based on the verification exercise undertaken, the QP believes that the supplied database is suitable for mineral resource estimation. Table 14.1 summarizes the constrained sample statistics for the Mousseau Project.

Table 14.1
Constrained Sample Statistics

Variable	Graphite Gr%	Length (m)
Number of Samples	832	1,533.79
Minimum Value*	0.03	0.08
Maximum Value*	20.97	2.6
Mean*	7.945	1.844
Median*	7.6	2.0
Variance	16.32	0.117
Standard Deviation	4.04	0.342
Coefficient of Variation	0.508	0.185
Skewness	0.4134	-2.092
Kurtosis	-0.262	4.197

14.4.2 Domain Interpretation

Local topography was derived from the LIDAR available for the area from the Ministère des Forêts, de la Faune et des Parcs. Topographic data for the larger area were obtained from a more general topographic map of Québec.

Domain models were generated from successive polylines spaced along drill hole sections every 25 m and oriented perpendicular to the general trend of the mineralization. Sections are looking N298°. The domain outlines were influenced by the selection of mineralized material above 4% Gr that demonstrated lithological and grade continuity along strike and down dip. Where appropriate, lower grade mineralization was included for the purpose of maintaining zonal continuity. On each section polylines interpretation were digitized from drill hole to drill hole but not typically extended more than 25 m from drilled mineralization. Mineralization was extended deeper when mineralized intersections were encountered in neighbouring sections.

All polyline vertices were snapped directly to drill hole assay intervals, except where the minimum width of 2 m down the holes was obtained by slightly widening the narrower intersection intervals. Those polylines were used to generate a three-dimensional representation of the extent of the mineralization. Domain wireframes were then clipped above the overburden surface, created using the lithological description, in order to limit the number of reported volumes. There was a total of 832 constrained assay intervals within the wireframes and a total of 71 holes used in the domain construction.

A total of 4 domains were developed:

- GP1 is the main unit striking roughly at N138°, inclined around -30° in the direction of N48° and progressively steepening to -55° toward the southeast end. This domain was further split in two GP1-HW and GP1-FW to avoid oversampling two sub-parallel branches during interpolation.
- GP2 is closer to surface, relatively narrow, well defined and it disappears in the overburden. GP2 has approximately the same strike direction as GP1 with a shallow dip.
- GP3 is located between GP1 and GP2. It has a varied width, and the dip is relatively shallow (-32°) with local steeper inclinations.
- GP4 is the deepest and smallest domain. However, based on the two deepest holes which intersect the domain, it presents an interesting exploration target.

14.4.3 Composites

Assay sample lengths within the defined domains range from 0.08 m to 2.6 m, with most of the samples 2.0 m in length. Thus, the average sample length is 1.84 m. To ensure equal sample support, a compositing length of 2.0 m was utilized for mineral resource estimation.

Length-weighted composites were calculated within the defined domains, starting from the first point of intersection between the drill hole and the domain wireframe, and halting upon exit from the domain wireframe.

Assays and composites were then assigned a domain rock code value based on the domain wireframe within which the interval midpoint fell. A background value of 0.001% was used for implicit missing graphite assay intervals.

After compositing, a small number of short-length residual composites were discarded to prevent short sample bias. The remaining composites were subsequently exported to extraction files for statistical analysis and estimation.

Table 14.2 summarizes the composite statistics for the Mousseau Project

Table 14.2
Summary of the Composite Statistics for the Mousseau Project

Variable	Graphite Composite
Number of Samples	899
Minimum Value (%)	0.001
Maximum Value (%)	18.934
Mean (%)	7.065
Median (%)	6.737
Sample Variance	17.7316
Standard deviation	4.211
Coefficient of Variation	0.596
Skewness	0.236
Kurtosis	-0.379

14.4.4 Grade Capping

The presence of high-grade outliers within the composite data was evaluated by a review of composite summary statistics, histograms and probability plots. Based on these analyses and the type of population, grade capping was deemed unnecessary by the QP.

14.4.5 Variography

A variography analysis using the geostatistical tools of Gemcom Version 6.8.4 was attempted, using the graphite composites as a guide to determine a grade interpolation search distance and ellipse orientation strategy. Figure 14.1 shows the semi-variogram of the major ellipse.

Continuity ellipses based on the observed ranges were subsequently generated and utilized as the basis for estimation search ranges, distance weighting calculations and mineral resource classification criteria.

14.4.6 Bulk Density

An average in-situ bulk density of 2.85 t/m^3 was applied to the mineralized domains and the host rock. This value is based on an average of 12 specific gravity measurements on representative samples selected in 2013 from various parts of the deposit. The details of the density study were not available and additional density measurements covering the various rock types and mineralized lenses are recommended.

14.4.7 Block Modelling

The Mousseau West resource block model was constructed using GEOVIA GEMS™ V6.8.4 modelling software. The block model origin and block size are summarized in Table 14.3.

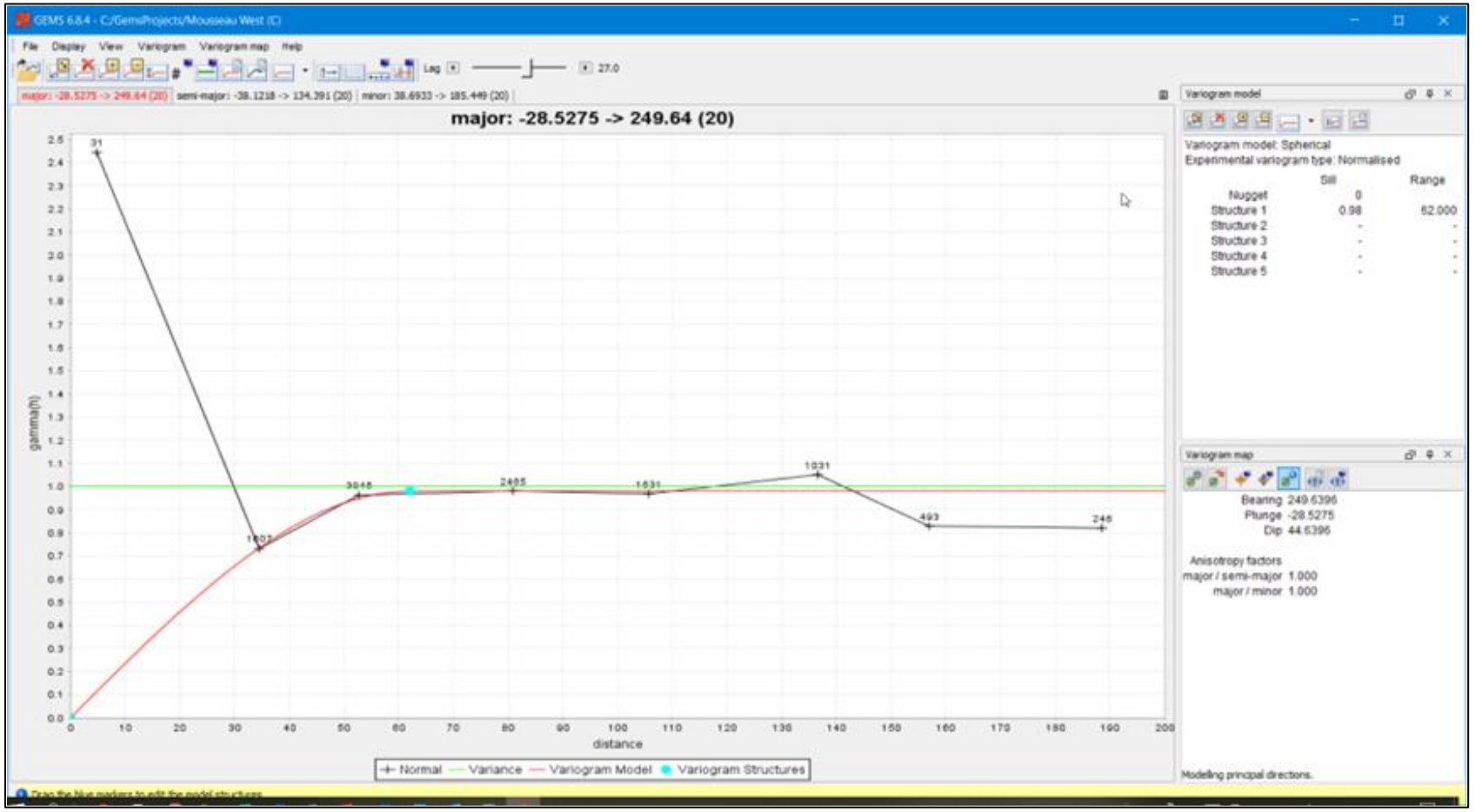
The block model consists of separate model attributes for estimating graphite (Inverse distance squared), Gp-NN (Nearest Neighbour), rock type (mineralization domains), volume percent, bulk density and classification.

Table 14.3
Mousseau West Block Model Attributes

Direction	Origin	No. of Blocks	Block Size (m)
X	500,450	70	5
Y	5,162,050	130	5
Z	425	40	5
Rotation	62° (Clockwise)		

In Gemcom, the origin of the block model is the lowest X and Y and the upper Z.

Figure 14.1
Semi-Variogram of the Major Ellipse



All blocks in the rock type block model were initially assigned a density of 2.85 t/m^3, corresponding to the surrounding country rocks. The mineralization domains were used to code all blocks within the rock type block model that contain 0.01% or greater volume within the wireframe domains. The topography surface was subsequently utilized to assign density of 0, corresponding to air, to all blocks 50% or greater above the topography surface.

A volume percent block model was established to accurately represent the volume and subsequent tonnage that was occupied by each block inside the constraining domain. As a result, the domain boundary is properly represented by the percent model ability to measure individual infinitely variable block inclusion percentages within an individual domain.

All composite values were used for the estimation of block grades. Composite data used during estimation were restricted to samples located in their respective domains (GP1, GP2, GP3, and GP4).

The grades were interpolated into the blocks using Inverse Distance weighting to the second power (ID^2) and Nearest Neighbour (NN) interpolation was run for validation purposes. Multiple passes were executed for the grade interpolation to progressively capture the sample points, in order to avoid over-smoothing and preserve local grade variability.

Table 14.4 summarizes the interpolation parameters. Measured mineral resources were classified for the blocks interpolated with the Pass I in Table 14.4, which used at least three holes with 33 m or less spacing.

Indicated mineral resources were classified for the blocks interpolated with the Pass II, which used at least two holes with 66 m or less spacing.

Inferred mineral resources were classified for the blocks interpolated with the Pass III, which used at least one hole with 130 m or less spacing.

Table 14.4
Mousseau West Block Model Grade Interpolation Parameters

Pass	No. of Composites			Search Range (m)		
	Min	Max	Max per Hole	Major	Semi-Major	Minor
I	5	12	2	33.25	20.5	18
II	3	12	2	66.50	41.0	36
III	1	12	2	132	82	70

14.5 MINERAL RESOURCE ESTIMATE

14.5.1 Mineral Resource Classification

The QP believes that the drilling, assaying and exploration work conducted on the Mousseau Project support the mineral resource estimate, which is based on spatial continuity of the mineralization within a potentially mineable shape.

14.5.2 Graphite Cut-Off Grade Calculation

A preliminary 4% cut-off was used to delimit the mineralized shells based on information provided by Northern Graphite and its nearby Lac des Iles, operating graphite mine, with a similar geological setting and similar grades.

Table 14.5 summarizes the parameters used to estimate the economic cut-off grade applied, in order to define the potentially economic portions of the mineralized domains as constrained within an open-pit scenario. The QP believes that the parameters used to determine the economic cut-off grade are sufficient to indicate a reasonable potential for economic extraction.

Table 14.5
Parameters used to Estimate the Economic Cut-Off Grade

Parameter	Units	Amount
Graphite value	US$/t	$1,500
Graphite recovery	%	90
Mining cost	CDN$/t	$2.50
Processing cost	CDN$/t	$50.0
Haulage cost	CDN$/t	$22.0
General and administration (G&A)	CDN$/t	$5.00
Exchange rate	CDN$/US$	0.78

The calculated graphite cut-off grade for an open-pit operation is 4.45%.

14.5.3 Mineral Resource Estimate

The mineral resource estimate was derived by applying the 4.45% graphite cut-off grade to the block model and reporting the resulting tonnes and grade for potentially extractable constrained resources.

In order to evaluate the potentially economic open pit mineralization in the Mousseau West Deposit, a first pass Whittle 4X pit optimization was carried out to create an optimum pit shell for the Mousseau Project. Resources are constrained within an optimized conceptual pit-shell with pit slopes of 50°.

Table 14.6
Mousseau Project Mineral Resource Estimate at a Cut-Off Grade of 4.45% Graphite

Category	Volume (m³)	Specific Gravity (t/m³)	Tonnes	Graphite (%)	Graphite (t)
Measured	283,605	2.85	808,275	7.612	61,525
Indicated	706,234	2.85	2,012,766	8.026	161,554
Mea + Ind	**989,839**	**2.85**	**2,821,041**	**7.908**	**223,079**
Inferred	116,451	2.85	331,884	9.254	30,714

Notes:

1. The parameters used to estimate open pit cut-off grade for the mineral resources are as follows: graphite price of US$1,500/t, exchange rate of US$1.00=CAD$0.78; estimated costs including mining ($2.50), process ($50/t), haulage ($22/t) and G&A ($5/t), process recovery of 90% and a pit slope of 50°. Mineralized material that is not included within the open pit shell is not part of the mineral resource estimate.

2. 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, socio-political, marketing, or other relevant issues, although the QP is not aware of any such issues.
3. The quantity and grade of reported Inferred Resources in this estimation are uncertain in nature and there has been insufficient exploration to define these Inferred resources as an Indicated or Measured mineral resource and it is uncertain if further exploration will result in upgrading the Inferred Resources to an Indicated or Measured mineral resource category.
4. The mineral resources were estimated using the Canadian Institute of Mining, Metallurgy and Petroleum (CIM), CIM Standards on Mineral Resources and Reserves, Definitions and Guidelines.
5. Values in the table may differ due to rounding.

Figure 14.2 shows the Mousseau Project mineral resources within the open pit shell.

14.5.4 Sensitivity Analysis

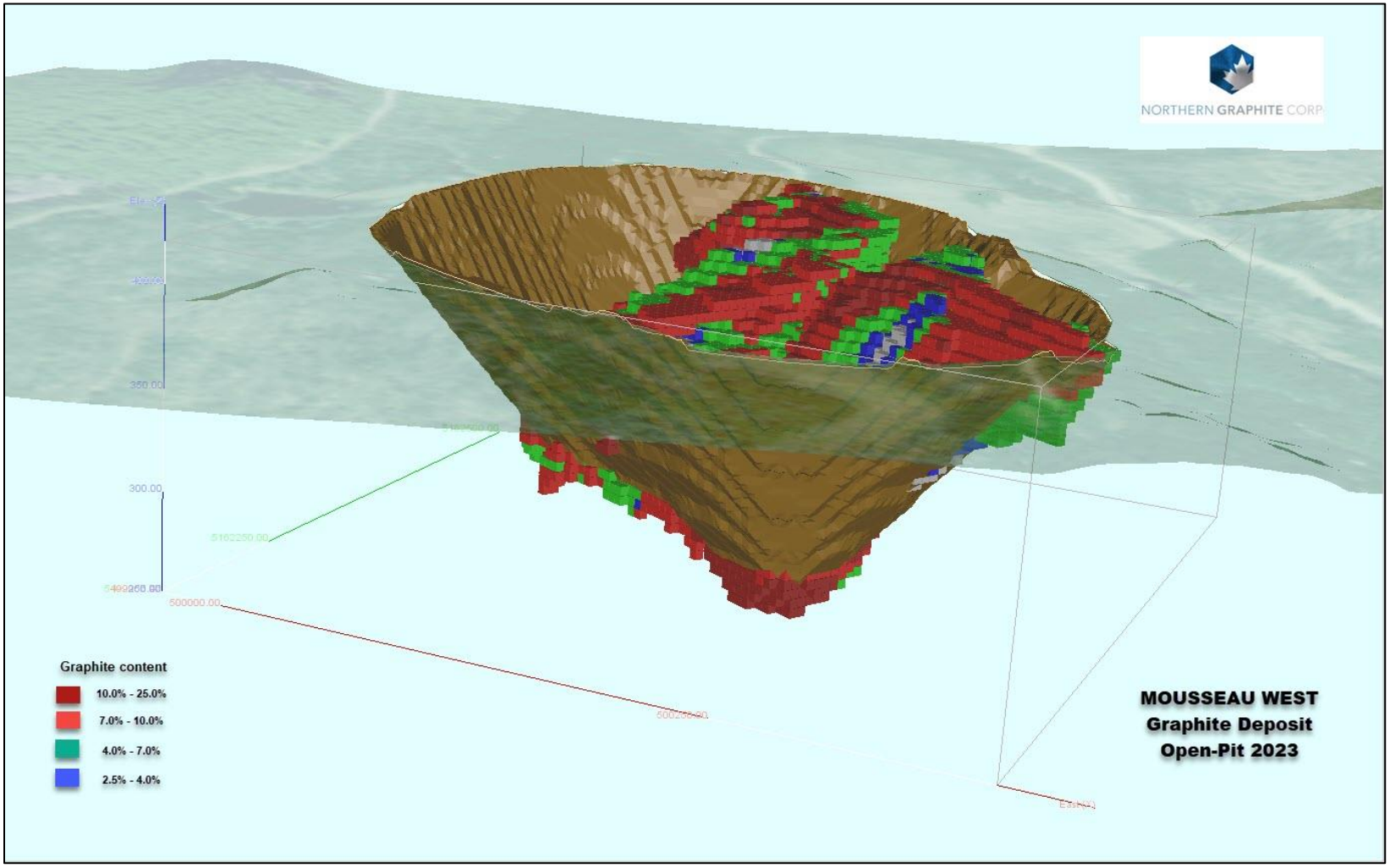
A graphite cut-off grade sensitivity analysis to the in-pit mineral resource estimate was also conducted (Table 14.7). The reader should be cautioned that the figures provided in Table 14.7 should not be interpreted as mineral resource statements. The reported quantities and grade estimates at different cut-off grades are presented for the sole purpose of demonstrating the sensitivity of the mineral resource model for graphite to the selection of a reporting cut-off grade. The QP has reviewed the cut-off grades used in the sensitivity analysis and is of the opinion that they meet the test for reasonable prospects of eventual economic extraction at varying cut-off grades of graphite.

Table 14.7
Open pit Mineral Resource Graphite Grade Sensitivity Analysis*

Classification	Graphite Cut-Off Grade (%)	Tonnes	Graphite Grade	Graphite Tonnes
Measured	6.0% +	566 384	8.611	48 769
	5.5%	653 348	8.231	53 774
	5.0%	734 172	7.902	58 011
	4.45%	**808 275**	**7.612**	**61 525**
	4%	858 851	7.413	63 667
	3%	922 771	7.148	65 956
	2.5%	937 944	7.076	66 370
	2.0%	951 145	7.010	66 672
Indicated	6.0% +	1 512 388	8.941	135 230
	5.5%	1 683 305	8.619	145 085
	5.0%	1 852 682	8.310	153 961
	4.45%	**2 012 766**	**8.026**	**161 554**
	4%	2 115 108	7.842	165 875
	3%	2 226 740	7.631	169 916
	2.5%	2 253 535	7.573	170 662
	2.0%	2 271 470	7.531	171 065
Inferred	6.0% +	285 351	9.925	28 320
	5.5%	294 080	9.798	28 814
	5.0%	315 463	9.489	29 935
	4.45%	**331 884**	**9.254**	**30 714**
	4%	352 735	8.955	31 586
	3%	364 647	8.786	32 038

***Mineral resource estimation base case is in **Bold**.

Figure 14.2
Mousseau Project Mineral Resources within the Open Pit Shell



14.6 VALIDATION OF MINERAL RESOURCE ESTIMATE

The block model was validated using a number of industry standard visual and statistical methods.

- Visual examination of composites and block grades on successive plans and sections were performed on-screen to confirm that the block models correctly reflect the distribution of composite grades.
- The review of estimation parameters included:
  - Number of composites used for estimation.
  - Number of drill holes used for estimation.
  - Number of passes used to estimate grade.
  - Actual distance to the closest point.
  - Grade of true closest point.
  - Mean distance to sample used.
  - Mean value of the composites used.
- The Inverse Distance Squared (ID^2) estimate was compared to a Nearest-Neighbour (NN) estimate. A comparison of average composite graphite grades with the block model average of cells not at zero grade is presented in Table 14.8.

Table 14.8
Comparison of Grade Averages for Raw Assays, Composites and Resource Block Models ID^2 and NN

Constrained Assays	Composites	ID^2 Blocks	NN Blocks
7.938	7.0649	7.161	7.32

The comparison in Table 14.8 shows the average graphite grade of all the blocks of ID^2 interpolation in the constraining domains to be somewhat higher than the average grade of the composites, which is due to some low-grade assay clustering.

The high value of constrained raw assays is explained by the inclusion in the composites of unsampled intervals in the thickest portion of the deposit. Those unsampled intervals affect the results of both the composites and the block model.

The block model values will be more representative than the assays or composites due to the block model's three-dimensional spatial distribution characteristics.

In addition, a comparison was performed with the block model volume of the model blocks versus the geometric calculated volume of the domain solids as follows:

- Geometric Volume = 1,395,271 m^3.
- Block Volume = 1,394,695 m^3.
- Difference = 0.04%.

INAPPLICABLE SECTIONS

The following sections of an NI 43-101 Technical Report apply to advanced properties. However, the Mousseau Project is not an advanced property, and the following sections are not applicable to this report.

15.0 MINERAL RESERVE ESTIMATES

16.0 MINING METHODS

17.0 RECOVERY METHODS

18.0 PROJECT INFRASTRUCTURE

19.0 MARKET STUDIES AND CONTRACTS

20.0 ENVIRONMENTAL STUDIES, PERMITTING AND SOCIAL OR COMMUNITY IMPACT

21.0 CAPITAL AND OPERATING COSTS

22.0 ECONOMIC ANALYSIS

23.0 ADJACENT PROPERTIES

The Mousseau East and West graphite occurrences are located along a fairly continuous EM geophysical conductor and were delineated at the same time, during the Graphicor exploration program carried out in the early nineties.

There is an indication that the graphite lenses do trend on to surrounding ground outside the current mineral leases held by Northern Graphite, but there are no adjacent properties for which any information is available.

24.0 OTHER RELEVANT DATA AND INFORMATION

All relevant data and information related to the Mousseau Project is included in this Technical Report.

Neither Micon nor the QPs are aware of any other data that would make a material difference to the quality of this Technical Report or make it more understandable, or without which the report would be incomplete or misleading.

Northern Graphite anticipates that, if it is demonstrated that mineral reserves exist at the Mousseau Project, mining, crushing and sorting of the feed material would be conducted at the Mousseau Project, and the crushed and sorted material would then be trucked approximately 80 km to the processing facilities at Lac des Iles mine.

25.0 INTERPRETATION AND CONCLUSIONS

25.1 General Discussion

Northern Graphite is in the process of assessing extent of the mineralization at the Mousseau West deposit and as part of the assessment has completed an updated mineral resource estimate. Northern Graphite believes that the Mousseau West deposit has the potential to be developed into a secondary feed source for its existing processing facilities at the Lac des Iles mine. Further exploration, metallurgical and economic studies will be conducted by Northern Graphite as it continues to assess the full extent of the graphite mineralization located at the Mousseau Project.

25.2 Mineral Resource Estimate

The QP considers the mineralization of the Mousseau West deposit to be potentially amenable to an open pit mining method, with reasonable prospects for eventual economic extraction. At a cut-off grade of 4.45% graphite, the mineral resource estimate of the Mousseau West deposit consists of 808,275 t at 7.61% Gr in the Measured classification, 2,012,766 t at 8.03% Gr in the Indicated classification and 331,884 t grading 9.25% Gr in the Inferred classification.

Contained graphite tonnages are 61,525 t Gr in the Measured classification, 161,554 t Gr in the Indicated classification and 30,714 t Gr in the Inferred classification.

With the geometry of the deposit, the Whittle optimized pit presently includes most of the mineralized blocks, although additional drilling will be required to delineate the graphite mineralization at depth and along strike.

25.3 Conclusions

25.3.1 Mineral Resource Estimate Conclusions

The QPs believe that the mineral resource estimate is robust enough that it can be used as the basis of further economic studies while Northern Graphite continues to further define the nature and extent of the mineralization at the Mousseau West deposit through further exploration programs.

25.3.2 Risks and Opportunities

Table 25.1 identifies significant internal risks, potential impacts and possible risk mitigation measures that could affect the economic outcome of the Mousseau Project. This excludes the external risks that apply to all mining projects (e.g., changes in metal prices, exchange rates, availability of investment capital, change in government regulations, etc.). Significant opportunities that could improve the economics, timing and permitting of the project are also identified in this table. Further information and evaluation are required before these opportunities can be included in the project economics.

Table 25.1
Risks and Opportunities at the Mousseau Project

Risk	Potential Impact	Possible Risk Mitigation
Mineral Resource Continuity.	Widely spaced drilling in some areas.	Continue infill drilling to upgrade a larger proportion of the mineral inventory to indicated and measured resources.
Proximity to the communities.	Possibility that the local population or indigenous communities do not accept the mining Project.	Maintain a pro-active and transparent strategy to identify all stakeholders and maintain a communication plan. The main stakeholders have been identified, and their needs/concerns understood. Continue to organize information sessions, publish information on the mining project, and meet with host communities.
Difficulty in attracting experienced professionals.	The ability to attract and retain competent, experienced professionals is a key success factor.	The early search for professionals will help identify and attract critical people. Alternatives to traditional residential staff may need to be considered.
Opportunities	**Explanation**	**Potential Benefit**
Surface definition diamond drilling	Potential to upgrade inferred resources to the indicated category	Adding indicated resources increases the economic value of the mining Project.
Surface exploration drilling	Potential to identify additional inferred resources or additional mineralized zones	Adding inferred resources or additional mineralized zones increases the economic value of the mining Project.
Compilation of assessment work on the newly acquired claims	Some previous resource was identified to the East, although not compliant with NI 43-101 and CIM definitions	New added resources can be added once the previous work is evaluated and possibly confirmed with field work and twin drilling

26.0 RECOMMENDATIONS

26.1 PLANNED EXPENDITURES AND BUDGET

Northern Graphite plans to spend and estimated $3.1 million to 5.1 million during the next phase of Project development. The expenditures are primarily to conduct further exploration, metallurgical testwork and economic studies at the Mousseau Project.

Table 26.1 summarizes the budget for the Mousseau Project.

Table 26.1
Summary of Northern Graphite's Budget for the Mousseau Project

Program	Total Metres	Cost $CDN
Diamond Drilling	30,000 to 40,000	$3,000,000 to $5,000,000
Metallurgical testwork		100,000
Total:		**$3,100,000 to $5,100,000**

The drilling will consist of between 30,000 m and 40,000 m of drilling across all potential targets. Infill drilling in areas of high potential will be conducted as part of this program. Metallurgical testwork will be conducted to determine the ratios of the flake size from small to extra large and to determine the variability of the mineralization within the different zones (lenses), with testwork to determine the requirements for processing Mousseau mineralization at Northern Graphite's Lac des Isles plant.

The QPs have reviewed Northern Graphite's proposed budget on the Mousseau property and recommend that Northern Graphite conducts the budgeted work as proposed, subject to funding and any other matters which may cause the proposed work program to be altered in the normal course of its business activities or alterations which may affect the work program.

26.2 RECOMMENDATIONS

Based on the results of the 2023 mineral resource estimate, the QPs recommend that Northern Graphite continues to outline an exploration program comprised of drilling (infill and exploration), geological mapping and sampling, to test the extents of mineralization within the known mineral trend. The exploration program should attempt to identify new targets, as well as potentially expanding the current deposits. Continued geological modelling and structural interpretation should also be a part of this program.

The QPs agree with the general direction of Northern Graphite's proposed work programs for the Project. Based upon the results of the exploration programs so far, the QPs make the following additional general recommendations for the Mousseau Project:

1. The QPs recommend that Northern Graphite continues to conduct exploration and drilling campaigns on the Mousseau Project to determine the full extent of the mineralization on the property.

2. The QPs recommend that Northern Graphite conducts further metallurgical testwork, not only to determine the flake size composition and variability of the mineralized zone but also to determine how amenable the graphite is to spheroidization, as this process would add value to the graphite beyond just creating a graphitic concentrate.
3. The QPs recommend that Northern Graphite continue to conduct further economic studies on the mineralization contained on the Mousseau West deposit, with the goal of being able to produce either a preliminary economic study (PEA) or, if applicable, a Pre-Feasibility study.
4. The QPs recommend that Northern Graphite engage in early and continual discussions with the local citizens, township and any indigenous communities, to bring them into the discussions regarding developing the Project, as these discussions may assist in helping facilitate the development of the Project in the future and allay any fears the community may have with regard to the Project.
5. The QPs recommend adding more density measurements in mineralized zones as well as in the waste rock in order to allow a better determination of the tonnage to be mined.

27.0 DATE AND SIGNATURE PAGE

"Antoine R. Yassa" {SIGNED AND SEALED as of the report date}

Antoine R. Yassa, P.Geo.

Report Date: September 30, 2023.
Effective Date: July 29, 2023.

"Yvan Bussieres, P.Eng" {SIGNED AND SEALED as of the report date}

Yvan Bussieres, P.Eng.

Report Date: September 30, 2023.
Effective Date: July 29, 2023

28.0 REFERENCES

28.1 TECHNICAL REPORTS, PAPERS, AND OTHER SOURCES

28.1.1 Statutory Work on the Property listed at the Ministry of Natural Resources and Wildlife

GM 64197 - REPORT ON HELICOPTER-BORNE AEROTEM SYSTEM ELECTROMAGNETIC AND MAGNETIC SURVEY, BLOCKS 1-5. 2008, By CORCIOBA, T, GARRIE, D. 60 pages. 18 maps. Other electronic data.

GM 64633 - REPORT OF FIELD WORK AND AIRBORNE ELECTROMAGNETIC SURVEY, LAC MCCASKILL PROPERTY. 2008, By FINNIGAN, C. 20 pages.

GM 60536 - RAPPORT DES TRAVAUX DE PROSPECTION JUIN 2003 & COMPILATION DES TRAVAUX ANTERIEURS, PROJET GRAPHITE / PROPRIETE MOUSSEAU. 2003, 29 pages. 1 microfiche.

GM 58328 - LEVE ELECTROMAGNETIQUE ET MAGNETIQUE HELIPORTE A HAUTE RESOLUTION REGION DE MONT-LAURIER BLOCS VERONIQUE, SAINTE-MARIE, DOOLITTLE ET RENZY. 1999, By ST-HILAIRE, C. 52 pages. 45 maps. Autres données numériques. 14 microfiches.

GM 53101 - RAPPORT INTERNE RESUMANT LA SITUATION, PROPRIETE MOUSSEAU. 1994, By HUBERT, G J M, PARENT, G. 85 pages. 22 maps. 4 microfiches

GM 52017 - PROJET MOUSSEAU, FORAGES 1992, ANALYSES ET ESSAIS RAPPORT SOMMAIRE. 1992, By LEDUC, M J, HEBERT, J J. 82 pages. 1 map. 3 microfiches.

GM 50641 - JOURNAL DE SONDAGE, PROPRIETE MOUSSEAU. 1990, By HEBERT, J J, BLAIN, M, PRUD'HOMME, S. 479 pages. 1 map. 12 microfiches

GM 53100 - DEMANDE DE CERTIFICAT D'AUTORISATION POUR LA REALISATION DE TRAVAUX DE MISE EN VALEUR, PROPRIETE MINIERE MOUSSEAU, PROJET MOUSSEAU EST. 1990, By HANSBURY, P, LEDUC, M. 317 pages. 2 maps. 7 microfiches.

GM 48866 - RAPPORT DE QUALIFICATION, PROPRIETE MOUSSEAU. 1989, By HEBERT, J. J. 23 pages. 1 microfiche.

GM 48867 - COUPE DE LIGNES ET LEVE ELECTROMAGNETIQUE A CADRES HORIZONTAUX. 1989, By LEDUC, M. 4 pages. 2 maps. 1 microfiche.

GM 50640 - RAPPORT DE QUALIFICATION, PROPRIETE MOUSSEAU. 1989, By HEBERT, J. J, ST-HILAIRE, C. 59 pages. 13 maps. 5 microfiches.

GM 51066 - LEVE ELECTROMAGNETIQUE HELIPORTE ET JALONNEMENT. 1989, By ST-HILAIRE, C. 31 pages. 40 maps. 27 microfiches.

GM 41493 - PRELIMINARY REPORT ON A GRAPHITE PROSPECT. 1984, By LEE, S. 18 pages. 1 map. 1 microfiche.

28.1.2 Statutory Work on the Property listed at the Ministry of Natural Resources and Wildlife

GM 55463 - RAPPORT DES TRAVAUX D'EXPLORATION, PROPRIETE LAC VERT. 1997, By CARON, L. 26 pages. 3 maps. 1 microfiche

GM 52134 - LEVE GEOLOGIQUE, PROPRIETE LACS VERTS. 1993, By HEBERT, J J. 20 pages. 1 map. 1 microfiche.

GM 52181 - LEVE GEOLOGIQUE, PROPRIETE LAC CURIERES. 1993, By HEBERT, J J. 24 pages. 2 maps. 2 microfiches.

GM 52182 - RAPPORT D'UN LEVE E M H DE TYPE MAX-MIN II, PROPRIETE CURIERES. 1993, By BOILEAU, P. 13 pages. 9 maps. 4 microfiches.

GM 51043 - LEVE GEOPHYSIQUE, ELECTROMAGNETIQUE, PROJET CURIERES. 1991, By LEDUC, M. 132 pages. 11 maps. 5 microfiches.

GM 51068 - RECONNAISSANCE GEOLOGIQUE ET CAMPAGNE DE FORAGES 1989-1990, PROPRIETE TAC. 1991, By VIROLLE, F, LEDUC, M. 221 pages. 4 maps. 8 microfiches

GM 51067 - GEOPHYSIQUE, LEVE EMH ET MISE-A-LA-MASSE, PROPRIETE TAC. 1990, By ST-HILAIRE, C. 24 pages. 13 maps. 10 microfiches.

GM 51069 - RECONNAISSANCE GEOLOGIQUE, PROPRIETE DES LACS VERTS. 1990, By BOULIANNE, D, LEDUC, M. 13 pages. 1 map. 1 microfiche.

GM 51070 - RAPPORT SOMMAIRE, FORAGES 1990, PROJET LACS VERTS. 1990, By ST-PIERRE, S. 30 pages. 1 map. 1 microfiche.

GM 51074 - GEOPHYSIQUE, LEVE EMH, PROPRIETE LACS VERTS. 1990, By ST-HILAIRE, C. 13 pages. 6 maps. 2 microfiches.

GM 51073 - CHAPTER 7, LAC VERT PROPERTY. 1990, By DERRY, MICHENER, BOOTH & WAHL. 5 pages. 1 map. 1 microfiche.

GM 51044 - LEVE GEOPHYSIQUE, ELECTROMAGNETIQUE, PROJET CAHILL. 1989, By LEDUC, M, ST-HILAIRE, C. 51 pages. 8 maps. 3 microfiches.

GM 51072 - RAPPORT SUR LA CAMPAGNE D'EXPLORATION, PROPRIETE LACS VERTS. 1989, By BOULIANNE, D. 8 pages. 1 microfiche.

GM 29055 - BOREHOLE RECORD, MONT-LAURIER PROPERTY. 1973, By MACGIBBON, A T. 10 pages. 1 microfiche.

GM 28207 - REPORT ON AN INDUCED POLARIZATION SURVEY, MONT-LAURIER AREA. 1972, Par GATES, T, KLEIN, J. 61 pages. 4 maps. 3 microfiches.

GM 28208 - COPPER NICKEL SHOWING. 1972, By KALTWASSER, R F. 19 pages. 12 maps. 3 microfiches.

GM 28545 - GEOCHEMICAL LAB REPORT. 1971, By CORMIER, R, MARLEAU, R A. 43 pages. 7 maps. 2 microfiches.

28.1.3 Other References

Cadéron, S.- Étude minéralogique, interprétation structurale et estimation des conditions de pression et de température des roches encaissantes et minéralisées de l'open-pit de STRATMIN GRAPHITE, province du Grenville, Lac-des- Iles, Québec. Mémoire de Maîtrise, Université de Montréal, Juin 1997.

DP 197 - GEOLOGIE DE LA REGION DE SAINTE-VERONIQUE-DE-TURGEON, COMTE DE LABELLE. 1973, By RIVE, M. 22 pages. 1 MAP / 2F (SCALE 1/12,000). 1 microfiche.

PRO 97-01 - ZINC: REGION DE L'ASCENSION (SNRC 31J/10). 1997, By HEBERT, C, CHOINIERE, J, NANTEL, S, LACOSTE, P. 6 pages. 1 microfiche

RG 182 - REGION DE SAINTE-VERONIQUE. 1976, By RIVE, M. 68 pages. CARTE 1839 (ECHELLE 1/12 000). 2 microfiches.

Simandl, G.J., Paradis, S., Valiquette G., Jacob, H.-L. (1995): Crystalline Graphite Deposits, Classification and Economic Potential, Lachute-Hull-Mont-Laurier Area, Québec; in Proceedings, 28th Forum on the Geology of Industrial Minerals, Martinsburg, West Virginia, May 3-8, 1992, pages 167-174.

Tremblay, Alain, and Bussieres, Yvan, (2013), Technical Report (NI 43-101 compliant) and Resources Estimate on the Mousseau West Graphite Property, (Brunet and Mousseau Townships) Mont-Laurier area, Province of Québec, for Graniz, 92 p.

28.2 Web Based Sources of Information

www.northerngraphite.com: website of the Northern Graphite Corporation company

www.standardgraphite.com: website of the Standard Graphite Inc. company

29.0 CERTIFICATES

CERTIFICATE OF QUALIFIED PERSON
YVAN BUSSIERES

I, Yvan Bussières, P.Eng. residing at 118, 29e Ave, Ste-Marthe-sur-le-Lac, Quebec, Canada J0N 1P0, and as co-author of this report for Northern Graphite Corp. entitled "NI 43-101 Technical Report for the 2023 Mineral Resource Estimate on the Mousseau West Graphite Project, Brunet and Mousseau Townships, Mont-Laurier Area, Quebec, Canada" dated September 30, 2023, with an effective date of July 29, 2023, do hereby certify that:

1. I am an independent engineer consultant contracted by Northern Graphite.
2. This certificate applies to the Technical Report titled "NI 43-101 Technical Report for the 2023 Mineral Resource Estimate on the Mousseau West Graphite Project, Brunet and Mousseau Townships, Mont-Laurier Area, Quebec, Canada", (The "Technical Report") dated September 30, 2023, with an effective date of July 29, 2023.
3. I am a graduate of Laval University at Quebec, Quebec with a B. Sc (HONS) in Geological Engineering (1978) with continuous experience as an engineer in geology and geophysics since 1978. I am a engineer consultant currently licensed by the Order of Engineer of Québec (License No 31985).

   I have read the definition of "Qualified Person" set out in National Instrument 43-101 ("NI 43-101") and certify that, by reason of my education, affiliation with a professional association (as defined in NI 43-101) and past relevant work experience, I fulfill the requirements to be a "Qualified Person" for the purposes of NI 43-101.

   My relevant experience for the purpose of the Technical Report is:

   - Geologist, Project Geologist, Consultant, Quebec (Esso Minerals, SOQUEM), 1978-1993
   - Senior Geologist, Evaluation of properties, Quebec, Placer Dome, 1994-1995
   - Senior Geologist, Evaluation of properties, West Africa, Placer Dome, 1995-1996
   - Exploration Manager, West Africa, EXP Resources, 1997-1998
   - Consultant Geologist and Geophysics from 1999 to date, including:
     - Project Manager for Whabouchi Project (Lithium, Quebec) from discovery drill hole to prefeasibility study, 2010-2011
     - Project Manager for Tony Project (Graphite, Quebec) from discovery drill hole to resources evaluation, 2015-2016
4. I have visited on August 31, 2023, the Property that is the subject of this Technical Report.
5. I am responsible for authoring Sections 1.1 to 1.7, 1.9 (except 1.9.4), 2 to 11, 12, 13, 23, 24, 25 (except 25.2), 26 (except 26.2), and 28 of this Technical Report. Sections 15 to 22 are not applicable to this report.
6. I am independent of Northern Graphite Corp. and its subsidiaries according to the definition described in NI 43-101 and the Companion Policy 43-101 CP;
7. I have prior involvement with the Project of this Technical Report for the drilling campaign of 2013.
8. I have read NI 43-101 and Form 43-101F1. This Technical Report has been prepared in compliance therewith;
9. As of the effective date of this Technical Report, to the best of my knowledge, information and belief, the Technical Report contains all scientific and technical information that is required to be disclosed to make the Technical Report not misleading;

Effective Date: July 29, 2023 and Report Date: September 30, 2023

"Yvan Bussieres" {Signed and Sealed as of the report date}

Yvan Bussieres, P.Eng.

CERTIFICATE OF QUALIFIED PERSON
ANTOINE R. YASSA

I, Antoine R. Yassa, P.Geo. residing at 3602 Rang des Cavaliers, Rouyn-Noranda, Quebec, Canada J0Z 1Y2, and as co-author of this report for Northern Graphite Corp. entitled "NI 43-101 Technical Report for the 2023 Mineral Resource Estimate on the Mousseau West Graphite Project, Brunet and Mousseau Townships, Mont-Laurier Area, Quebec, Canada" dated September 30, 2023, with an effective date of July 29, 2023 do hereby certify that:

1. I am an independent geological consultant contracted by Northern Graphite.
2. This certificate applies to the Technical Report titled "NI 43-101 Technical Report for the 2023 Mineral Resource Estimate on the Mousseau West Graphite Project, Brunet and Mousseau Townships, Mont-Laurier Area, Quebec, Canada", (The "Technical Report") dated September 30, 2023, with an effective date of July 29, 2023.
3. I am a graduate of Ottawa University at Ottawa, Ontario with a B. Sc (HONS) in Geological Sciences (1977) with continuous experience as a geologist since 1979. I am a geological consultant currently licensed by the Order of Geologists of Québec (License No 224) and by the Association of Professional Geoscientist of Ontario (License No 1890).

   I have read the definition of "Qualified Person" set out in National Instrument 43-101 ("NI 43-101") and certify that, by reason of my education, affiliation with a professional association (as defined in NI 43-101) and past relevant work experience, I fulfill the requirements to be a "Qualified Person" for the purposes of NI 43-101.

   My relevant experience for the purpose of the Technical Report is:

   - Minex Geologist (Val d'Or), 3-D Modeling (Timmins), Placer Dome 1993-1995
   - Database Manager, Senior Geologist, West Africa, PDX, 1996-1998
   - Senior Geologist, Database Manager, McWatters Mine 1998-2000
   - Database Manager, Gemcom modeling and Resources Evaluation (Kiena Mine) 2001-2003
   - Database Manager and Resources Evaluation at Julietta Mine, Bema Gold Corp. 2003-2006
   - Consulting Geologist 2006-present
4. I have not visited the Property that is the subject of this Technical Report.
5. I am responsible for authoring Sections 1.8, 1.9.4, 14, 25.2, 25.3 and 26.2 of this Technical Report. Sections 15 to 22 are not applicable to this report.
6. I am independent of Northern Graphite Corp. and its subsidiaries according to the definition described in NI 43-101 and the Companion Policy 43-101 CP.
7. I have no prior involvement with the Project that is the subject of this Technical Report.
8. I have read NI 43-101 and Form 43-101F1. This Technical Report has been prepared in compliance therewith.
9. As of the effective date of this Technical Report, to the best of my knowledge, information and belief, the Technical Report contains all scientific and technical information that is required to be disclosed to make the Technical Report not misleading.

Effective Date: July 29, 2023 and Report Date: September 30, 2023

[Antoine R. Yassa] {SIGNED AND SEALED as of the report date}

Antoine R. Yassa, P.Geo.

APPENDIX I
GLOSSARY OF MINING AND OTHER RELATED TERMS

The following is a glossary of certain mining terms that may be used in this Technical Report.

A

Assay	A chemical test performed on a sample of ores or minerals to determine the quantity of valuable metals or minerals contained.

B

Base metal	Any non-precious metal (e.g. copper, lead, zinc, nickel, etc.).
Bulk mining	Any large-scale, mechanized method of mining involving many thousands of tonnes of ore being brought to surface per day.
Bulk sample	A large sample of mineralized rock, frequently hundreds of tonnes, selected in such a manner as to be representative of the potential orebody being sampled. The sample is usually used to determine metallurgical characteristics.
By-product	A secondary metal or mineral product recovered in the milling process.

C

Channel sample	A sample composed of pieces of vein or mineral deposit that have been cut out of a small trench or channel, usually about 10 cm wide and 2 cm deep.
Chip sample	A method of sampling a rock exposure whereby a regular series of small chips of rock is broken off along a line across the face.
CIM Standards	The CIM Definition Standards on Mineral Resources and Mineral Reserves adopted by CIM Council from time to time. The most recent update adopted by the CIM Council is effective as of May 10, 2014.
CIM	The Canadian Institute of Mining, Metallurgy and Petroleum.
Concentrate	A fine, powdery product of the milling process containing a high percentage of valuable metal.
Contact	A geological term used to describe the line or plane along which two different rock formations meet.
Core	The long cylindrical piece of rock, about an inch in diameter, brought to surface by diamond drilling.
Core sample	One or several pieces of whole or split parts of core selected as a sample for analysis or assay.
Cross-cut	A horizontal opening driven from a shaft and (or near) right angles to the strike of a vein or other orebody. The term is also used to signify that a drill hole is crossing the mineralization at or near right angles to it.
Cut-off grade	The lowest grade of mineralized rock that qualifies as ore grade in a given deposit, and is also used as the lowest grade below which the mineralized rock currently cannot be profitably exploited. Cut-off grades vary between deposits depending upon the amenability of ore to gold extraction and upon costs of production.

D

Deposit	An informal term for an accumulation of mineralization or other valuable earth material of any origin.
Development/In-fill drilling	Drilling to establish accurate estimates of mineral resources or reserves usually in an operating mine or advanced project.
Dilution	Rock that is, by necessity, removed along with the ore in the mining process, subsequently lowering the grade of the ore.
Dip	The angle at which a vein, structure or rock bed is inclined from the horizontal as measured at right angles to the strike.

E

Epithermal	Hydrothermal mineral deposit formed within one kilometre of the earth's surface, in the temperature range of 50 to 200°C.
Exploration	Prospecting, sampling, mapping, diamond drilling and other work involved in searching for ore.

F

Face	The end of a drift, cross-cut or stope in which work is taking place.
Fault	A break in the Earth's crust caused by tectonic forces which have moved the rock on one side with respect to the other.
Flotation	A milling process in which valuable mineral particles are induced to become attached to bubbles and float as others sink.
Fold	Any bending or wrinkling of rock strata.
Footwall	The rock on the underside of a vein or mineralized structure or deposit.
Fracture	A break in the rock, the opening of which allows mineral-bearing solutions to enter. A "cross-fracture" is a minor break extending at more-or-less right angles to the direction of the principal fractures.

G

g/t	Abbreviation for gram(s) per metric tonne.
g/t	Abbreviation for gram(s) per tonne.
Grade	Term used to indicate the concentration of an economically desirable mineral or element in its host rock as a function of its relative mass. With gold, this term may be expressed as grams per tonne (g/t) or ounces per tonne (opt).
Gram	One gram is equal to 0.0321507 troy ounces.
Graphite	A crystalline form of the element carbon. It consists of stacked layers of graphene. Graphite occurs naturally and is the most stable form of carbon under standard conditions. Synthetic and natural graphite are consumed on a large scale for uses in

pencils, lubricants, electrodes and EV battaries. Under high pressures and temperatures, it converts to diamond. It is a good (but not excellent) conductor of both heat and electricity.

H

Hanging wall — The rock on the upper side of a vein or mineral deposit.

High-grade — Rich mineralization or ore. As a verb, it refers to selective mining of the best ore in a deposit.

Host rock — The rock surrounding an ore deposit.

Hydrothermal — Processes associated with heated or superheated water, especially mineralization or alteration.

I

Indicated Mineral Resource

An Indicated Mineral Resource is that part of a Mineral Resource for which quantity, grade or quality, densities, shape and physical characteristics are estimated with sufficient confidence to allow the application of Modifying Factors in sufficient detail to support mine planning and evaluation of the economic viability of the deposit. Geological evidence is derived from adequately detailed and reliable exploration, sampling and testing and is sufficient to assume geological and grade or quality continuity between points of observation. An Indicated Mineral Resource has a lower level of confidence than that applying to a Measured Mineral Resource and may only be converted to a Probable Mineral Reserve.

Inferred Mineral Resource

An Inferred Mineral Resource is that part of a Mineral Resource for which quantity and grade or quality are estimated on the basis of limited geological evidence and sampling. Geological evidence is sufficient to imply but not verify geological and grade or quality continuity. An Inferred Mineral Resource has a lower level of confidence than that applying to an Indicated Mineral Resource and must not be converted to a Mineral Reserve. It is reasonably expected that the majority of Inferred Mineral Resources could be upgraded to Indicated Mineral Resources with continued exploration.

Intrusive — A body of igneous rock formed by the consolidation of magma intruded into other rocks.

K

km — Abbreviation for kilometre(s). One kilometre is equal to 0.62 miles.

L

Level — The horizontal openings on a working horizon in a mine; it is customary to work underground mines from a shaft or decline, establishing levels at regular intervals, generally about 50 m or more apart.

M

m	Abbreviation for metre(s). One metre is equal to 3.28 feet.
Measured Mineral Resource	A Measured Mineral Resource is that part of a Mineral Resource for which quantity, grade or quality, densities, shape, and physical characteristics are estimated with confidence sufficient to allow the application of Modifying Factors to support detailed mine planning and final evaluation of the economic viability of the deposit. Geological evidence is derived from detailed and reliable exploration, sampling and testing and is sufficient to confirm geological and grade or quality continuity between points of observation. A Measured Mineral Resource has a higher level of confidence than that applying to either an Indicated Mineral Resource or an Inferred Mineral Resource. It may be converted to a Proven Mineral Reserve or to a Probable Mineral Reserve.
Metallurgy	The science and art of separating metals and metallic minerals from their ores by mechanical and chemical processes.
Metamorphic	Affected by physical, chemical, and structural processes imposed by depth in the earth's crust.
Mill	A plant in which ore is treated and metals are recovered or prepared for smelting; also a revolving drum used for the grinding of ores in preparation for treatment.
Mineral	A naturally occurring homogeneous substance having definite physical properties and chemical composition and, if formed under favourable conditions, a definite crystal form.
Mineral Claim/Concession	That portion of public mineral lands which a party has staked or marked out in accordance with federal or state mining laws to acquire the right to explore for and exploit the minerals under the surface.
Mineralization	The process or processes by which mineral or minerals are introduced into a rock, resulting in a valuable or potentially valuable deposit.
Mineral Resource	A Mineral Resource is a concentration or occurrence of solid material of economic interest in or on the Earth's crust in such form, grade or quality and quantity that there are reasonable prospects for eventual economic extraction. The location, quantity, grade or quality, continuity and other geological characteristics of a Mineral Resource are known, estimated or interpreted from specific geological evidence and knowledge, including sampling. Material of economic interest refers to diamonds, natural solid inorganic material, or natural solid fossilized organic material including base and precious metals, coal, and industrial minerals. The term mineral resource used in this report is a Canadian mining term as defined in accordance with NI 43-101 – Standards of Disclosure for Mineral Projects under the guidelines set out in the Canadian Institute of Mining, Metallurgy and Petroleum (the

CIM), Standards on Mineral Resource and Mineral Reserves Definitions and guidelines originally adopted by the CIM Council on December 11, 2005 and recently updated as of May 10, 2014 (the CIM Standards).

Mineral Reserve

A Mineral Reserve is the economically mineable part of a Measured and/or Indicated Mineral Resource. It includes diluting materials and allowances for losses, which may occur when the material is mined or extracted and is defined by studies at Pre-Feasibility or Feasibility level as appropriate that include application of Modifying Factors. Such studies demonstrate that, at the time of reporting, extraction could reasonably be justified. The reference point at which Mineral Reserves are defined, usually the point where the ore is delivered to the processing plant, must be stated. It is important that, in all situations where the reference point is different, such as for a saleable product, a clarifying statement is included to ensure that the reader is fully informed as to what is being reported. The public disclosure of a Mineral Reserve must be demonstrated by a Pre-Feasibility Study or Feasibility Study.

N

NI 43-101

National Instrument 43-101 is a national instrument for the Standards of Disclosure for Mineral Projects within Canada. The Instrument is a codified set of rules and guidelines for reporting and displaying information related to mineral properties owned by, or explored by, companies which report these results on stock exchanges within Canada. This includes foreign-owned mining entities who trade on stock exchanges overseen by the Canadian Securities Administrators (CSA), even if they only trade on Over The Counter (OTC) derivatives or other instrumented securities. The NI 43-101 rules and guidelines were updated as of June 30, 2011.

Northern Graphite Corp.

Northern Graphite Corp., including, unless the context otherwise requires, the Company's subsidiaries.

O

Open Pit/Cut — A form of mining operation designed to extract minerals that lie near the surface. Waste or overburden is first removed, and the mineral is broken and loaded for processing. The mining of metalliferous ores by surface-mining methods is commonly designated as open-pit mining as distinguished from strip mining of coal and the quarrying of other non-metallic materials, such as limestone and building stone.

Outcrop — An exposure of rock or mineral deposit that can be seen on surface, that is, not covered by soil or water.

Oxidation — A chemical reaction caused by exposure to oxygen that results in a change in the chemical composition of a mineral.

P

Plant	A building or group of buildings in which a process or function is carried out; at a mine site it will include warehouses, hoisting equipment, compressors, maintenance shops, offices and the mill or concentrator.
Probable Reserve	A Probable Mineral Reserve is the economically mineable part of an Indicated, and in some circumstances, a Measured Mineral Resource. The confidence in the Modifying Factors applying to a Probable Mineral Reserve is lower than that applying to a Proven Mineral Reserve.
Proven Reserve	A Proven Mineral Reserve is the economically mineable part of a Measured Mineral Resource. A Proven Mineral Reserve implies a high degree of confidence in the Modifying Factors.
Pyrite	A common, pale-bronze or brass-yellow, mineral composed of iron and sulphur. Pyrite has a brilliant metallic luster and has been mistaken for gold. Pyrite is the most wide-spread and abundant of the sulphide minerals and occurs in all kinds of rocks.

Q

Qualified Person	Conforms to that definition under NI 43-101 for an individual: (a) to be an engineer or geoscientist with a university degree, or equivalent accreditation, in an area of geoscience, or engineering, related to mineral exploration or mining; (b) has at least five years' experience in mineral exploration, mine development or operation or mineral project assessment, or any combination of these, that is relevant to his or her professional degree or area of practice; (c) to have experience relevant to the subject matter of the mineral project and the technical report; (d) is in good standing with a professional association; and (e) in the case of a professional association in a foreign jurisdiction, has a membership designation that (i) requires attainment of a position of responsibility in their profession that requires the exercise of independent judgement; and (ii) requires (A.) a favourable confidential peer evaluation of the individual's character, professional judgement, experience, and ethical fitness; or (B.) a recommendation for membership by at least two peers, and demonstrated prominence or expertise in the field of mineral exploration or mining.

R

Reclamation	The restoration of a site after mining or exploration activity is completed.

S

Stockpile	Broken ore heaped on surface, pending treatment or shipment.
Strike	The direction, or bearing from true north, of a vein or rock formation measure on a horizontal surface.
Stringer	A narrow vein or irregular filament of a mineral or minerals traversing a rock mass.

Sulphides	A group of minerals which contains sulphur and other metallic elements such as copper and zinc. Gold and silver are usually associated with sulphide enrichment in mineral deposits.

T

Tonne	A metric ton of 1,000 kilograms (2,205 pounds).

U

Underground Mine	An excavation beneath the surface of the ground from which mineral matter of value is extracted.

V

Vein	A fissure, fault or crack in a rock filled by minerals that have travelled upwards from some deep source.

W

Wall rocks	Rock units on either side of an orebody. The hanging wall and footwall rocks of a mineral deposit or orebody.
Waste	Unmineralized, or sometimes mineralized, rock that is not minable at a profit.
Working(s)	May be a shaft, quarry, level, open-cut, open pit, or stope etc. Usually noted in the plural.

Z

Zone	An area of distinct mineralization.