NI 43-101 TECHNICAL REPORT
LAC SAGUAY GRAPHITE PROJECT
QUÉBEC, CANADA

Prepared For:

Graphano Energy Ltd.

120 Carlton Street # 219

Toronto, Ontario, M5A 4K2

Prepared By:

Matthew Harrington, P.Geo., Mercator Geological Services Limited

Effective Date: July 15, 2025

Report Date: August 29, 2025

Report prepared for:

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CERTIFICATE OF QUALIFIED PERSON

Matthew D. Harrington, P.Geo.
Mercator Geological Services Limited
65 Queen Street, Dartmouth, Nova Scotia, Canada B2Y 1GA

I, Matthew D. Harrington, P.Geo., am employed as President and Senior Resource Geologist with Mercator Geological Services Limited.

This certificate applies to the technical report titled "NI 43-101 TECHNICAL REPORT LAC SAGUAY GRAPHITE PROJECT QUÉBEC, CANADA" with an effective date of July 15, 2025 (the "Technical Report").

I am a member in good standing with the Association of Professional Geoscientists of Nova Scotia (Registration Number 0254) and the Association of Professional Engineers and Geoscientists of Newfoundland and Labrador (Member Number 09541), and the Ordre des Géologues du Québec (Registration Number 2345). I graduated with a Bachelor of Science degree (Honours, Geology) in 2004 from Dalhousie University.

I have practiced my profession for 21 years. My relevant experience with respect to this Technical Report includes extensive professional experience with respect to geology, mineral deposits, mineral resource estimation, mineral deposit evaluation and exploration activities in Canada and internationally. I have specific experience in assessment of base metal, precious metal, manganese-iron and volcanogenic massive sulphide deposits. I have authored and co-authored numerous related NI 43-101 Technical Reports and other technical documents addressing such topics, including graphite projects.

As a result of my experience and qualifications, I am a Qualified Person as defined in National Instrument 43–101 *Standards of Disclosure for Mineral Projects* (NI 43–101).

I am responsible all Sections of the Technical Report.

I am independent of Graphano Energy Ltd. as independence is described by Section 1.5 of NI 43–101.

I have been involved with the Lac Saguay Graphite Project as a consultant with Mercator Geological Services Limited since 2023. I last visited the property that is subject of this Technical Report from May 12 to May 15, 2025.

I have read NI 43–101, and the parts of the Technical Report that I am responsible for have been prepared in compliance with that Instrument.

As of the date of this certificate, to the best of my knowledge, information and belief, the parts of the Technical Report that I am responsible for preparing contain all scientific and technical information that is required to be disclosed to make the Technical Report not misleading.

"signed and stamped"

Matthew D. Harrington, P.Geo.
Dated: August 29, 2025

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1.0 SUMMARY

1.1 Introduction

Graphano Energy Ltd. ("Graphano") retained Mercator Geological Services Ltd. ("Mercator") to prepare an independent NI 43-101 Technical Report (the "Technical Report") and maiden Mineral Resource Estimate ("MRE") for the Lac Saguay Graphite Project ("Mineral Project"), located in western Québec, Canada). The Mineral Project is comprised of 3 separate properties, Lac-Aux-Bouleaux ("LAB"), Standard, and Black Pearl. The Mineral Project is 100 % controlled by Graphano, a TSX.V listed Issuer, with corporate office located at 120 Carlton Street # 219, Toronto, Ontario, M5A 4K2, Canada.

1.2 Terms of Reference

This Technical Report presents the Mineral Project maiden MRE, effective date July 15, 2025. This Technical Report also summarizes exploration and drilling completed by Graphano on the Mineral Project.

The Qualified Person ("QP") understands that this Technical Report will support the public disclosure requirements of Graphano and will be filed on SEDAR+ as required under NI 43-101 disclosure regulations.

The MRE was completed in accordance with the Canadian Institute of Mining, Metallurgy, and Petroleum ("CIM") Estimation of Mineral Resources and Mineral Reserves Best Practice Guidelines, November 29, 2019 ("CIM MRMR Best Practice Guidelines") and reported in accordance with the CIM Definition Standards for Mineral Resources and Mineral Reserves, May 10, 2014 ("CIM Definition Standards").

Unless otherwise stated, the units of measures used in this Technical Report conform to the metric system and the currency is expressed in CDN dollars.

1.3 Property Description and Ownership

The Mineral Project is comprised of 130 Exclusive Exploration Rights ("EER") totalling 6,714 ha (67.14 km^2) from 3 properties, LAB, Standard, and Black Pearl. Graphano holds a 100% interest in the Mineral Project.

The Mineral Project is situated near the town of Mont Laurier, Québec, within the Antoine-Labelle Regional County Municipality of the Laurentides region. Mont Laurier is located approximately 150 km north from Ottawa, along Highway 309, and 150 km northwest from Montréal, along Highway 117 and the A15. Both cities have international airports. The LAB Property occurs 20 km to the south of Mont Laurier by Highway 309, whereas the Standard and Black Pearl Properties occur 40 km and 60 km west along Highway 117, respectively. Tertiary and forest roads provide excellent access to the different areas of the Mineral Project.

The LAB Property is sub-divided into 9 exploration zones based on history, exploration results, and prospectivity. These are Zone 1 though Zone 8 and the Pit Zone. The Standard and Black Pearl properties have not been sub-divided into exploration zones. The Mineral Project MRE includes graphite mineralization from Zone 1, Zone 3, and the Pit Zone of the LAB Property, the LAB deposit, and the Standard Property, the Standard deposit.

A 2% NSR is present on the EERs that comprise the Standard Property. Graphano provided information pertaining to the mineral tenure and property agreements that supports the assumptions used in this Technical Report.

1.4 History

1.4.1 LAB

Graphite mineralization was discovered on the LAB Property by prospectors Mr. Phraz Arbic and Dr. L.J. Rue in 1957. Various minor exploration programs of geophysics, trenching, drilling, and metallurgy were completed until Orrwell Energy Corporation Ltd.'s ("Orrwell") operation in the early 1980's. Orrwell completed an exploration work program consisting of geophysical surveys, 84 diamond drill holes totalling 5,959 m, and a historical estimate and historical mining study. A mine plan was developed to mine graphite material at the Pit Zone to a depth of 20 m (65 ft) by open pit methods and then use underground stoping methods accessed by either decline or shaft. Orrwell operated an open pit mining operation that extracted an unspecified amount of material to a maximum depth of approximately 12 m until their operation terminated in 1983.

After Orrwell, NRG Metals Inc. completed a high resolution heliborne magnetic and time-domain electromagnetic ("TDEM") survey on the property in 2015. As a follow up to the airborne survey a ground TDEM PhiSpy survey was also completed.

Between 2015 and 2019, various companies operated the property and completed exploration programs. This includes a metallurgical testwork program completed by Gold Port Resources, 4 diamond drill holes for 385 m completed by Graphite Energy Corp.("GEC"), and a ground TDEM PhiSpy survey completed by Manganese X Energy ("Mag X").

1.4.2 Standard

From 1922 to 1930, a company known as the Canada Graphite Corporation was reported to have produced 1,713 tonnes of graphite concentrate from the Standard property. Mining was focused on a graphite zone at depth of 40 m over a strike of 67 m in a north-easterly direction by a single shaft, adit and drift. Two geophysical surveys are reported to be completed in the area of historical mining. In 1957 Paul E. Dumont completed a resistivity survey and in 1983 Géola Ltée completed a Max-Min II survey. Both geophysical surveys are reported to highlight a 500 m long.

1.4.3 Black Pearl

There are no known historical exploration programs for graphite completed on the Black Pearl Property.

1.5 Geology and Mineralization

The Mineral Project is located in the southwestern portion of the Grenville Geological Province of the Canadian Shield. In Québec, the Grenville Province is divided into two tectonic belts, the Parautochthonous and Allochthonous, separated by the Allochthon Boundary Thrust. The Mineral Project is located in the west part of the Allochthonous tectonic belt composed of Paleoproterozoic to Mesoproterozoic rocks.

Intense ductile deformation occurred during the Grenvillian orogenic cycle. Distinct phases of orogenic activity during this cycle thrusted different terranes up and over each other and resulted in a series of large eastward-dipping supracrustal belts, each one dipping eastward below successively younger ones. The terranes are fault-bounded crustal blocks that are exposed over a wide belt from southwestern Ontario, through northern New York State to Labrador. The Mineral Project is underlain by the Central Metasedimentary Belt ("CMB") of the Grenville Province.

The CMB is comprised of quartzofeldspathic rocks, quartzite, biotite gneiss, recrystallized limestone and marble, and locally pegmatitic quartzofeldspathic rocks. The CMB is subdivided into two domains based on lithological predominance: a north-northeast trending marble-rich domain to the west and a quartzite-rich domain to the east. The Mineral Project is located within the marble-rich domain that is characterized by marble and paragneiss.

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.

The Mineral Project is classified as a crystalline flake graphite deposit of syngenetic origin. Large flake graphite mineralization is hosted in a strongly folded recrystalized limestone - marble unit as part of a predominantly paragneiss and quartzite sequence. Ductile deformation of the recrystalized limestone - marble is thought to result in repetition of the mineralized horizons with enrichment of graphite mineralization in fold noses. This deformation also results in boudinage structures and thereby influencing depth and continuity at which graphitic mineralization occurs. The sequence also underwent several phases of brittle deformation that are primarily defined as a set of north-south normal faults dipping to the west and a second set of sinistral east-west faults. Faulting can disrupt continuity of mineralization both locally and regionally. The thickness of the recrystallized limestone - marble varies from an average of approximately 5 m to 10 m and can be thicker in the fold noses.

1.6 Exploration and Drilling

Graphano has generally applied a systematic exploration methodology that progresses from geophysical surveys and prospecting, to trenching and channel sampling, and finally diamond drilling and core sampling.

At the LAB Property, Graphano has conducted several trenching programs followed by diamond drilling. Between 2022 and 2024 a total of 69 drill holes for 5,672.79 m have been completed.

At the Standard Property, Graphano conducted an airborne TDEM survey in 2022. Anomalies from this program were investigated first by trenching and followed up by diamond drilling. Between 2022 and 2023 Graphano completed 33 drill holes for 3,148.52 m.

At the Black Pearl Property, Graphano has conducted ground EM surveys (Max-Min II and VLF-EM) and trenching programs. Channel sample assay results ranged from 0.06% graphitic carbon ("Cg") to 21.9% Cg over a 1 m sample length, with 57% (24 of the 42 samples) of the samples assaying greater than 15% Cg. True widths of mineralization are not known. No drilling has been completed to date.

Graphano drill program procedures are consistent with industry standards. Sampling, logging, core recovery and collar and downhole survey data collected are consistent with industry standards.

1.7 Sample Preparation, Analyses, and Security

St-Pierre Exploration Enr. of Amos, Québec, ("SPE") were contracted by Graphano to supervise the trenching, drilling, and sampling programs completed on the Mineral Project, including quality assurance and quality control ("QAQC") protocols.

All samples collected for the drilling and trenching programs were sent to Activation Laboratories ("Actlabs") in Ancaster, Ontario for analysis, an accredited commercial analytical firm registered to ISO/IEC 17025:2017 and ISO 9001:2015 standards. Graphano is fully independent of Actlabs. The Actlabs facility in Ancaster, Ontario carried out the sample login/registration, sample weighing, sample preparation and analyses.

Samples are crushed to 80% less than 2 mm and a riffle split is pulverized to 95% passing 105 microns. A 0.5 g sample is analyzed for graphitic carbon, analyzing C-Graphite (infrared) where the sample is subjected to a multistage furnace treatment to remove all forms of carbon except for graphitic carbon and C-Total (infrared).

QAQC programs were completed for 2022 – 2024 drilling programs using an insertion rate of approximately 1 quality control sample per 10 core samples. This resulted in 27 Certified Reference Materials ("CRM"), 150 quarter core duplicates, and 137 blank samples. No significant issues were found in the QAQC programs.

The QP has concluded that the sample preparation, analysis, QAQC, and security procedures implemented by Graphano for the 2022- 2024 sample programs are consistent with the CIM Mineral Exploration Best Practice Guidelines and current industry standards. Associated analytical results are assessed to be acceptable for Mineral Resource estimation purposes. Historical procedures are not well documented.

1.8 Data Verification

The QP completed a site visit to the Mineral Project on the 12th to the 15th of May 202 on behalf of Graphano. As part of the site visit completed, the author confirmed the presence of graphite in drill core and that it is accurately reflected in drill logs, that QAQC and security procedures are implemented at the core logging facility, and collected independent witness ("IW") samples for check sampling. No issues were identified that negatively impact the findings and conclusions of this Technical Report.

A comprehensive data verification program was completed for the Mineral Project drill hole database that included verification of drill hole collars, trench locations, downhole surveys, analytical results, lithology, and mineralized intervals against original records, including original drill logs, plan maps, sections, original assay certificates, core photos, presentations, and reports. The QP concludes the results of the data verification program are acceptable and results can be used in the MRE.

The QP is of the opinion that results from the data verification program components discussed above indicate that industry standard levels of technical documentation and detail are evident in the recent exploration results for the Mineral Project. Site visit field observations show that lithological, structural, mineralogical, and other field attributes were accurately recorded and CIM Mineral Exploration Best Practice Guidelines were consistently applied for Graphano's drilling and core sampling programs. Diamond drilling completed by Graphano has substantiated results from historical drilling and core sampling programs.

1.9 Mineral Processing and Metallurgical Testing

Graphano initiated a test program in November 2023 to evaluate the amenability of processing material from different zones containing ~5.45 - 7.00% graphite to produce saleable products of graphite using flotation. Testwork was completed by SGS Canada Inc., Québec City, Québec ("SGS") and included sample characterization including chemical and mineralogical analyses as well as flotation tests. Four samples representing four different zones totaling 60 kg were obtained from the LAB and Standard

properties and shipped to SGS. A summary of the head grade, final concentrate grade, and recovery to concentrate for each sample tested is presented in Table 1-1.

Table 1-1: Summary Head Grade, Final Concentrate Grade and Recovery to Concentrate

Sample Code	Zone Info	Head Grade (%)				Final Grade	Recovery
		C(t) %	C(g) %	TIC %	TOC %	C(g) %	%
1	LB22-30 LB 18-03	12.1	6.89	4.94	7.20	74.9	94.0
2	LB22-32 LB22-46 LB22-48	9.14	7.00	1.97	7.17	72.9	81.5
3	LB22-18 LB22-23 LB22-26	8.60	5.45	3.06	5.53	60.0	83.2
4	ST23-08 ST23-09 ST23-10	9.47	6.06	3.48	5.99	93.7	92.5

The received samples contained between 5.45% to 7% graphitic carbon and the gangue include calcite (18.9-39.4%), diopside (9.4-15.9%), quartz (5.2-22.2%), orthoclase (6-10.2%), and meionite (4.2-11.1%).

The mineralogical analysis showed that, at 3.35 mm, 65%, 78%, 84%, and 86% of the graphite is liberated, in samples 1, 2, 3, and 4, respectively, 11-28% is exposed, and 3-9% is locked. Graphite grains show two dominant grain sizes: coarse grains ranging from 50 µm to ~500 µm in length, and fine grains ranging from <10 µm to ~50 µm.

Of the flotation tests completed, test F2 on sample 4 achieved the best results, preferentially recovering 92.5% of the graphite (Cg) at 93.7% grade and sample 3 showed the worst results with recovering 83.2% of the graphite (Cg) at 60% grade.

1.10 Mineral Resource Estimates

The MRE for the Mineral Project was prepared by Mr. Matthew Harrington of Mercator. The effective date is July 15, 2025. Mineral Resources were estimated in conformity with CIM MRMR Best Practice Guidelines. Mineral Resources are not Mineral Reserves and do not have demonstrated economic viability.

The Mineral Project MRE is comprised of two different deposits, the LAB deposit, consisting of the Pit Zone, Zone 1, and Zone 3, and the Standard deposit. A validated drill hole database was developed for the Mineral Project. The two deposits were subsequently treated separately in all phases of block model construction. The following summarizes the estimation methodology:

- Drill hole database validation;
- 3D modelling of geology and mineralization;
- Assay sample and geostatistical analysis including sample frequency, grade relationships, density assignment, capping, compositing and variography;
- Block modelling and grade estimation;
- Block model validation;
- Assessment of reasonable prospects for eventual economic extraction;
- Mineral Resource classification;
- and Mineral Resource reporting.

Mineralization modelling is based on stratigraphy, host lithology, and graphite occurrence, which can, in general, be well corelated between drill hole sections. Mineral Resource classification is based on drill hole spacing, interpolation pass and confidence in the geological model. The Mineral Project MRE is presented in Table 1-2.

Table 1-2: Lac Saguay Graphite Project Mineral Resource Estimate – Effective Date: July 15, 2025

Deposit	Zone	Category	Tonnes	Cg (%)
Lac-Aux-Bouleaux	Pit Zone	Indicated	250,000	8.96
		Inferred	100,000	7.28
	Zone 1	Indicated	70,000	5.92
		Inferred	120,000	5.81
	Zone 3	Indicated	370,000	7.76
		Inferred	380,000	6.89
Standard	Standard	Indicated	950,000	6.27
		Inferred	980,000	7.16
Total		Indicated	1,640,000	7.00
		Inferred	1,580,000	7.00

Mineral Resource Notes:
1) Mineral Resources were prepared in accordance with the CIM Definition Standards for Mineral Resources and Mineral Reserves (MRMR) (2014) and CIM MRMR Best Practice Guidelines (2019).
2) Graphitic carbon (Cg %) grade was estimated from 1.5 m downhole assay composites using ID^2 interpolation. Variable capping was applied.
3) Lac-Aux-Bouleaux model block size is 5 m (x) by 5 m (y) by 6 m (z) with 4 units of sub-blocking and Standard model block size is 4 m (x) by 4 m (y) by 4 m (z) with 4 units of sub-blocking.
4) Bulk density of 2.80 g/cm^3 was applied to all mineralized domains.
5) Mineral Resources are defined within an optimized pit shell with an average slope angle of 45^o and an overall strip ratio of 4.73:1 (waste : mineralized material)
6) Parameters used in pit optimization include a long-term average graphite flake concentrate market price of $0.99/lb ($USD1,500/t), an overall metallurgical recovery of 90%, and costs at $4.50/t mining, $30/t processing, $12/t G&A, and $22/t transportation. All prices are CDN unless otherwise specified using an exchange rate of 1.35 CDN : USD.

7) Mineral Resources are reported at a cut-off grade of 3.0% Cg with the optimized pit shell and define reasonable prospects for eventual economic extraction by open pit mining methods.
8) Mineral Resources may be materially affected by environmental, permitting, legal, title, taxation, sociopolitical, marketing, or other relevant issues.
9) Mineral Resources are not Mineral Reserves and do not have demonstrated economic viability.
10) Mineral Resource tonnages are rounded to the nearest 10,000. Contained Cg is rounded to the nearest 1,000.

Mineral Project risks that pertain specifically to the Mineral Resource include:

- Changes to the long-term graphite price assumptions including unforeseen long-term negative market pricing trends.
- Changes to the input values for mining, processing, and G&A costs to constrain the Mineral Resource.
- Changes to metallurgical recovery assumptions including metallurgical recoveries that fall outside economically acceptable ranges. Early-stage testwork completed returned less than optimal recoveries from some of the samples, interpreted to be associated with over grinding.
- Changes to the interpretations of mineralization geometry and continuity. Mineralization can be associated with isoclinal folds and boudinages that are difficult to define. The orientation and overall intensity of intrusive dykes are not fully understood in all deposit zones.
- Inaccuracies of deposit modelling and grade estimation programs with respect to actual metal grades and tonnages contained within the deposit.
- Mineral Resource density is assigned as a constant value and does not accurately represent local variability.
- The Pit Zone Mineral Resource is predominantly based on historical drilling that may not have been subject to current industry best practices and QAQC protocols. Graphano has drilled 4 verification drill holes and 1 exploration drill hole to help mitigate this risk.
- Variations in geotechnical, hydrological, and mining assumptions.
- Changes in the assumptions of marketability of the final product.
- Issues with respect to mineral tenure, land access, land ownership, environmental conditions, permitting, and social license.

At this time, the QP does not foresee any significant risks and uncertainties that could reasonably be expected to affect the reliability or confidence in the drilling information and MRE disclosed in this Technical Report.

1.11 Conclusions

Mineral Resources were defined for the Mineral Project. Further diamond drilling and deposit evaluations are warranted to expand and improve confidence in Mineral Resources.

Exploration completed by Graphano regional to Mineral Resources has defined significant coarse graphite mineralization. This includes Zone 4 and Zone 8 at the LAB Property and the Black Pearl Property. Zone 2, Zone 5, and Zone 7 at the LAB Property remain untested. Continued exploration is warranted in these areas.

1.12 Recommendations

A two-phase program is recommended. Phase I reflects exploration drilling, metallurgical testwork, structural studies and an updated MRE. Phase II supports a Preliminary Economic Assessment ("PEA") level study, base line environmental and tailings disposal studies, and geotechnical studies. Strategies and approaches for completion of the PEA would be conditional to positive results from Phase I. Phase I is estimated to cost $1.275M and Phase II is estimated to cost $0.45M.

2.0 INTRODUCTION

Graphano retained Mercator to prepare an independent NI 43-101 Technical Report and maiden MRE for the Mineral Project, located in western Québec, Canada (Figure 2-1). The Mineral Project is comprised of 3 separate properties, LAB, Standard, and Black Pearl. The Mineral Project is 100 % controlled by Graphano, a TSX.V listed Issuer, with corporate office located at 120 Carlton Street # 219, Toronto, Ontario, M5A 4K2, Canada. Graphano is also traded on the OTC Pink and FSE ("Frankfurt Stock Exchange").

2.1 Terms of Reference

This Technical Report presents the Mineral Project maiden MRE, effective date July 15, 2025. This Technical Report also summarizes exploration and drilling completed by Graphano on the Mineral Project.

The QP understands that this Technical Report will support the public disclosure requirements of Graphano and will be filed on SEDAR+ as required under NI 43-101 disclosure regulations.

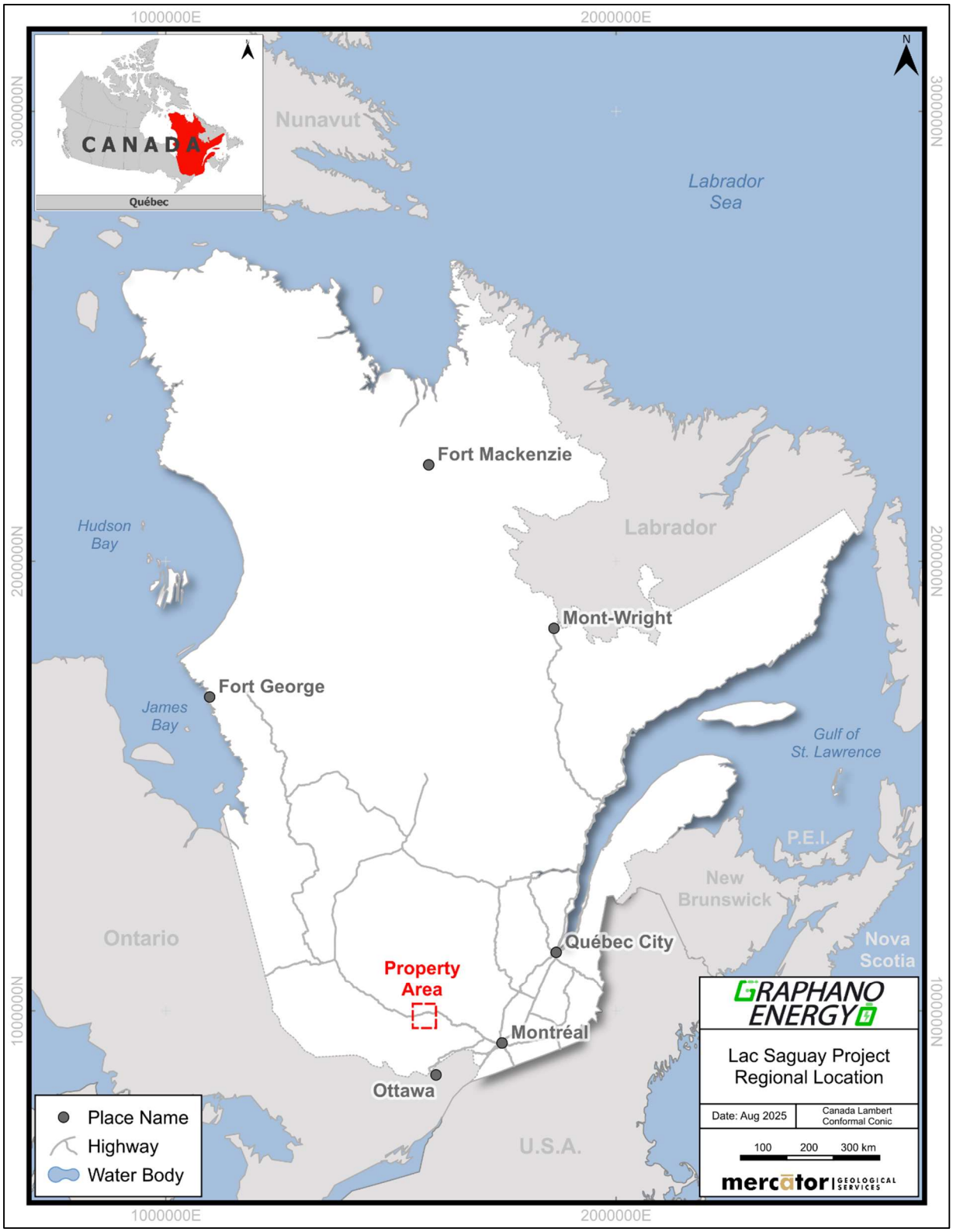
The MRE was completed in accordance with the CIM MRMR Best Practice Guidelines and reported in accordance with the CIM Definition Standards.

Unless otherwise stated, the units of measures used in this Technical Report conform to the metric system and the currency is expressed in CDN dollars.

2.2 Qualified Persons ("QP")

Author Matthew Harrington, P.Geo., is an independent QP as defined by NI 43-101 and is responsible for all sections of this Technical Report as summarized in his Certificate of Qualified Person. The author does not have any material present or contingent interest in the outcome of this Technical Report, nor does he have any financial or other interest that could be reasonably regarded as being capable of affecting his independence in the preparation of this Technical Report. This Technical Report has been prepared in return for professional fees based upon agreed commercial rates and the payment of these fees is in no way contingent on the results of this Technical Report. The author is not a director, officer or other direct employee of Graphano and does not have shareholdings in this company.

Figure 2-1: Location map of the Mineral Project



2.3 Personal Inspection (Site Visit) and Data Verification

2.3.1 QP Author M. Harrington Site Visit

The QP has completed a personal inspection (site visit) of the Mineral Project between May 12 to 15, 2025. The purpose of the personal inspection was to complete an IW check sampling program of drill core and to satisfy NI 43-101 requirements for personal inspections and data verification. The QP completed or directly supervised the following tasks and inspections:

- Reviewed and inspected the Graphano core logging, core sampling and core storage facilities located near Mont Laurier, Québec.
- Compared select core intervals with original drill logs and sampled intervals.
- Collected 10 IW quarter core samples from the LAB Property 2022 to 2024 drill programs.
- Collected 11 IW quarter core samples from the Standard Property from two separate 2023 drill programs.
- Reviewed data collection and QAQC procedures for the drilling and sampling programs.
- Completed a field inspection and drill collar coordinate check program for the LAB and Standard property areas.

The personal inspections completed by the QP confirmed the following:

1. The Graphano core facility was well organized and there was evidence of proper QAQC procedures in place for core logging and sampling.
2. Graphite mineralization styles and descriptions were consistent with observations documented in drill logs/reporting for the reviewed drill core.
3. Graphite mineralization was evident in the core samples reviewed and sample intervals were properly documented in core boxes and in the core logging database.
4. Access to most Property areas is excellent.
5. The drill collar coordinate checking program carried out provided consistent results with drill hole database records.

Based on a detailed review of the available exploration and drilling data, geophysical data, and QAQC procedures, the QP is satisfied this meets the data verification requirements under NI 43-101. The Graphano drilling programs were designed according to CIM Mineral Exploration Best Practice Guidelines and no issues or fatal flaws arising from the personal inspection were detected. Results from the IW sampling and check assay program are discussed further in Section 12 of this Technical Report.

2.4 Information Sources

Sources of information, data and reports reviewed as part of this Technical Report can be found in Section 27. The author takes responsibility for the content of this Technical Report and believes the data review to be accurate and complete in all relevant aspects.

The following technical reports have been previously prepared on the Mineral Project:

1. Ethier, M., 2021. Updated NI 43-101 Technical Report on the Lac Aux Bouleaux Graphite Property; prepared by Hinterland Geoscience and Geomatics for Graphano Energy Ltd., effective date July 02, 2021. 102 p.
2. Parent, D., 1981. Technical Report on the graphite mining property of Orrwell Energy Corporation Ltd. located in the Bouthillier Township, Mont Laurier area, Laurentides – Labelle County, South Western Québec; prepared by Doug Parent Consulting Limited for Orrwell Energy Corporation Ltd., effective date September, 1981, 33 p.

The QP acquired mineral titles information on the mineral claims, mining concessions, and mining leases from both the Québec Mining Title Management System (known as “GESTIM”) and through discussion with Graphano. This information indicated the mineral claims to be in good standing as of the effective date of this Technical Report.

Graphano exploration data was provided to QP by the company in the form of digital drill logs, drill log summaries, Excel spreadsheet or similar forms, GIS files, and original assay certificates. Mercator provided geological services for the late 2023 – 2024 drill program and as such had a direct role in the management and integrity of exploration data during that time.

2.5 Abbreviations

Table 2-2 presents abbreviations used in this Technical Report.

Table 2-1: Table of abbreviations

Abbreviation	Meaning
Graphano	Graphano Energy Ltd.
Mercator	Mercator Geological Services Limited
SPE	St-Pierre Exploration Enr. of Amos, Québec
Mineral Project	Lac Saguay Graphite Project
NI 43-101	National Instrument 43-101
MRE	Mineral Resource Estimate
PEA	Preliminary Economic Assessment
EIA	Environmental Impact Assessment
CIM	Canadian Institute of Mining, Metallurgy, and Petroleum
CIM MRMR Best Practice Guidelines	CIM Estimation of Mineral Resources and Mineral Reserves Best Practice Guidelines, November 29, 2019
CIM Definition Standards	CIM Definition Standards for Mineral Resources and Mineral Reserves, May 10, 2014
LAB	Lac-Aux-Bouleaux
QP	Qualified Person
EER	Exclusive Exploration Rights
CDC	map designated claims
TDEM	time-domain electromagnetic
TMI	total magnetic intensity
Orrwell	Orrwell Energy Corporation Ltd.
GEC	Graphite Energy Corp.
Mag X	Manganese X Energy
GEI	Geomap Exploration Inc.
P.Geo.	Professional Geologist
P.Eng.	Professional Engineer
CMB	Central Metasedimentary Belt
Actlabs	Activation Laboratories
SGS	SGS Canada Inc.
ALS	ALS Canada Ltd.
IW	Independent Witness
QAQC	Quality Assurance and Quality Control
CRM	Certified Reference Material
Cg	Graphitic carbon
IR	Infrared
CO	Carbon monoxide
CO_2	Carbon dioxide
LOI	loss on ignition

Abbreviation	Meaning		
GESTIM	Québec Mining Title Management System		
JV	Joint Venture		
SOQUEM	SOQUEM Inc.		
NSR	Net Smelter Return		
MELCCFP	Québec Ministère de l'Environnement, de la Lutte contre les changements climatiques, de la Faune et des Parcs		
MRNF	Québec Ministère des Ressources Naturelles et des Foréts		
ATI	authorization from MRNF		
NGC	Northern Graphite Corporation		
LDI	Lac-des-Îles Graphite Mine		
UTM NAD83 Zone 18	Universal Transverse Mercator NAD83 Zone 18		
MASL	m above sea level		
GPS	Global Positioning System		
G&A	General and administrative		
DEM	digital elevation model		
DTM	Digital terrain model		
Leapfrog	Seequent Leapfrog Edge v2025.1.1		
ID^2	Inverse Distance Squared		
k	thousand		
t	tonne (1000 kg or 2204.6 lb)	°	degree symbol
M	million (currency)	wt	wet tonne
t/d	tonnes per day	%	percent
m/d	meters per day	t/yr	tonnes per year
Ma	million (years)	dt	dry tonne
ca	circa	Ti	Titanium
et al.	and others	V	Vanadium
C	Celsius	Zn	Zinc
ha	hectare	Pb	Lead
kg	kilogram	Au	Gold
km	kilometre	Ag	Silver
lbs	pounds	Fe	Iron
ft	foot	Cu	Copper
"	inch	Zn	Zinc
µm	micrometre	Fe	Iron
m	metre	Fe_2O_3	Iron oxide
mm	millimetre	TiO_2	Titanium dioxide
cm	centimetre	V_2O_5	Vanadium oxide
ml	millilitre	ppm	parts per million
/	per	ppb	parts per billion
g	gram (0.03215 troy oz)	Oz/T to g/t	1 oz/T = 34.28 g/t
oz	troy ounce (31.04 g)	g/t	grams per tonne

3.0 RELIANCE ON OTHER EXPERTS

The author has relied on information provided by Graphano and GESTIM concerning the status of claims that form the Mineral Project. The author confirmed on August 18, 2025, that GESTIM showed all mineral rights associated with the Mineral Project that are identified in Section 4.0 of this Technical Report were in good standing.

The author has not researched property title or mineral rights for the Mineral Project and expresses no opinion as to the ownership status of the Mineral Project. No warranty or guarantee, be it express or implied, is made by the author with respect to the completeness or accuracy of the surface rights and mineral titles comprising the Mineral Project.

The author has also relied upon Graphano concerning surface access, legal, environmental, option, joint venture, and royalty matters relating to the Mineral Project.

4.0 PROPERTY DESCRIPTION AND LOCATION

4.1 Property Location and Description

The Mineral Project is comprised of 130 EER totaling 6,714 ha (67.14 km^2) from 3 properties, LAB, Standard, and Black Pearl. The LAB Property consists of 37 EERs totaling 2,033 ha (20.33 km^2), the Standard Property consists of 6 EERs totaling 355 ha (3.55 km^2), and the Black Pearl Property consists of 87 EERs totaling 4,326 ha (43.26 km^2). The Standard and Black Pearl properties are congruent. Graphano holds a 100% interest in the Mineral Project, with the contributing EERs summarized in Table 4-1 and fully listed in Table 4-2.

Table 4-1:Summary of active Mineral Project Exclusive Exploration Rights

Title Holder	Property	Type	Number of Claims	Area (ha)
Graphano Energy Ltd	Lac-Aux-Bouleaux	EER	37	2,032.69
Graphano Energy Ltd	Standard	EER	6	354.99
Graphano Energy Ltd	Black Pearl	EER	87	4,326.28
Totals =			130	6,713.96

Table 4-2: List of active Mineral Project Exclusive Exploration Rights

Holder	Property	Type	Titles	NTS	Issue Date	Expiry Date	Area (Ha)
Graphano Energy ltd.	Black Pearl	EER	2819637	31J11	2024-02-06	2027-02-05	59.21
Graphano Energy ltd.	Black Pearl	EER	2819638	31J11	2024-02-06	2027-02-05	59.20
Graphano Energy ltd.	Black Pearl	EER	2819639	31J11	2024-02-06	2027-02-05	59.20
Graphano Energy ltd.	Black Pearl	EER	2819640	31J11	2024-02-06	2027-02-05	59.19
Graphano Energy ltd.	Black Pearl	EER	2819641	31J11	2024-02-06	2027-02-05	59.19
Graphano Energy ltd.	Black Pearl	EER	2819642	31J11	2024-02-06	2027-02-05	59.18
Graphano Energy ltd.	Black Pearl	EER	2819643	31J11	2024-02-06	2027-02-05	59.18
Graphano Energy ltd.	Black Pearl	EER	2819644	31J11	2024-02-06	2027-02-05	59.18
Graphano Energy ltd.	Black Pearl	EER	2819645	31J11	2024-02-06	2027-02-05	59.18
Graphano Energy ltd.	Black Pearl	EER	2819646	31J11	2024-02-06	2027-02-05	59.18
Graphano Energy ltd.	Black Pearl	EER	2819647	31J11	2024-02-06	2027-02-05	59.18
Graphano Energy ltd.	Black Pearl	EER	2819648	31J11	2024-02-06	2027-02-05	59.18
Graphano Energy ltd.	Black Pearl	EER	2819649	31J11	2024-02-06	2027-02-05	59.17
Graphano Energy ltd.	Black Pearl	EER	2819650	31J11	2024-02-06	2027-02-05	59.17
Graphano Energy ltd.	Black Pearl	EER	2819651	31J11	2024-02-06	2027-02-05	59.20
Graphano Energy ltd.	Black Pearl	EER	2819652	31J11	2024-02-06	2027-02-05	59.20
Graphano Energy ltd.	Black Pearl	EER	2819653	31J11	2024-02-06	2027-02-05	59.20
Graphano Energy ltd.	Black Pearl	EER	2819654	31J11	2024-02-06	2027-02-05	59.19
Graphano Energy ltd.	Black Pearl	EER	2819655	31J11	2024-02-06	2027-02-05	59.19
Graphano Energy ltd.	Black Pearl	EER	2819656	31J11	2024-02-06	2027-02-05	59.19

Holder	Property	Type	Titles	NTS	Issue Date	Expiry Date	Area (Ha)
Graphano Energy ltd.	Black Pearl	EER	2819657	31J11	2024-02-06	2027-02-05	59.19
Graphano Energy ltd.	Black Pearl	EER	2819658	31J11	2024-02-06	2027-02-05	59.18
Graphano Energy ltd.	Black Pearl	EER	2819659	31J11	2024-02-06	2027-02-05	59.18
Graphano Energy ltd.	Black Pearl	EER	2819660	31J11	2024-02-06	2027-02-05	59.18
Graphano Energy ltd.	Black Pearl	EER	2819661	31J11	2024-02-06	2027-02-05	59.17
Graphano Energy ltd.	Black Pearl	EER	2819662	31J11	2024-02-06	2027-02-05	59.17
Graphano Energy ltd.	Black Pearl	EER	2819663	31J11	2024-02-06	2027-02-05	59.16
Graphano Energy ltd.	Black Pearl	EER	2819664	31J11	2024-02-06	2027-02-05	59.16
Graphano Energy ltd.	Black Pearl	EER	2819665	31J11	2024-02-06	2027-02-05	59.15
Graphano Energy ltd.	Black Pearl	EER	2819666	31J11	2024-02-06	2027-02-05	59.15
Graphano Energy ltd.	Black Pearl	EER	2819667	31J11	2024-02-06	2027-02-05	59.15
Graphano Energy ltd.	Black Pearl	EER	2819668	31J11	2024-02-06	2027-02-05	59.14
Graphano Energy ltd.	Black Pearl	EER	2819669	31J11	2024-02-06	2027-02-05	59.14
Graphano Energy ltd.	Black Pearl	EER	2819670	31J11	2024-02-06	2027-02-05	59.14
Graphano Energy ltd.	Black Pearl	EER	2819671	31J11	2024-02-06	2027-02-05	59.14
Graphano Energy ltd.	Black Pearl	EER	2819672	31J11	2024-02-06	2027-02-05	59.13
Graphano Energy ltd.	Black Pearl	EER	2819673	31J11	2024-02-06	2027-02-05	59.13
Graphano Energy ltd.	Black Pearl	EER	2819674	31J11	2024-02-06	2027-02-05	59.13
Graphano Energy ltd.	Black Pearl	EER	2819675	31J11	2024-02-06	2027-02-05	59.13
Graphano Energy ltd.	Black Pearl	EER	2819870	31J11	2024-02-08	2027-02-07	59.12
Graphano Energy ltd.	Black Pearl	EER	2819871	31J11	2024-02-08	2027-02-07	59.12
Graphano Energy ltd.	Black Pearl	EER	2819872	31J11	2024-02-08	2027-02-07	59.12
Graphano Energy ltd.	Black Pearl	EER	2819873	31J11	2024-02-08	2027-02-07	59.12
Graphano Energy ltd.	Black Pearl	EER	2819874	31J11	2024-02-08	2027-02-07	59.12
Graphano Energy ltd.	Black Pearl	EER	2819875	31J11	2024-02-08	2027-02-07	59.12
Graphano Energy ltd.	Black Pearl	EER	2819876	31J11	2024-02-08	2027-02-07	59.12
Graphano Energy ltd.	Black Pearl	EER	2819877	31J11	2024-02-08	2027-02-07	59.12
Graphano Energy ltd.	Black Pearl	EER	2819878	31J11	2024-02-08	2027-02-07	59.12
Graphano Energy ltd.	Black Pearl	EER	2827492	31J11	2024-05-24	2027-05-23	47.89
Graphano Energy ltd.	Black Pearl	EER	2827493	31J11	2024-05-24	2027-05-23	59.20
Graphano Energy ltd.	Black Pearl	EER	2827494	31J11	2024-05-24	2027-05-23	57.77
Graphano Energy ltd.	Black Pearl	EER	2827495	31J11	2024-05-24	2027-05-23	51.75
Graphano Energy ltd.	Black Pearl	EER	2827496	31J11	2024-05-24	2027-05-23	44.42
Graphano Energy ltd.	Black Pearl	EER	2827497	31J11	2024-05-24	2027-05-23	31.08
Graphano Energy ltd.	Black Pearl	EER	2827498	31J11	2024-05-24	2027-05-23	27.30
Graphano Energy ltd.	Black Pearl	EER	2827499	31J11	2024-05-24	2027-05-23	27.11
Graphano Energy ltd.	Black Pearl	EER	2827500	31J11	2024-05-24	2027-05-23	30.99
Graphano Energy ltd.	Black Pearl	EER	2827501	31J11	2024-05-24	2027-05-23	57.98
Graphano Energy ltd.	Black Pearl	EER	2827502	31J11	2024-05-24	2027-05-23	10.27
Graphano Energy ltd.	Black Pearl	EER	2827503	31J11	2024-05-24	2027-05-23	35.83

Holder	Property	Type	Titles	NTS	Issue Date	Expiry Date	Area (Ha)
Graphano Energy ltd.	Black Pearl	EER	2827504	31J11	2024-05-24	2027-05-23	13.76
Graphano Energy ltd.	Black Pearl	EER	2827505	31J11	2024-05-24	2027-05-23	26.75
Graphano Energy ltd.	Black Pearl	EER	2827506	31J11	2024-05-24	2027-05-23	30.06
Graphano Energy ltd.	Black Pearl	EER	2827507	31J11	2024-05-24	2027-05-23	51.85
Graphano Energy ltd.	Black Pearl	EER	2827508	31J11	2024-05-24	2027-05-23	52.67
Graphano Energy ltd.	Black Pearl	EER	2827509	31J11	2024-05-24	2027-05-23	22.30
Graphano Energy ltd.	Black Pearl	EER	2827510	31J11	2024-05-24	2027-05-23	20.74
Graphano Energy ltd.	Black Pearl	EER	2827511	31J11	2024-05-24	2027-05-23	21.15
Graphano Energy ltd.	Black Pearl	EER	2827512	31J11	2024-05-24	2027-05-23	27.34
Graphano Energy ltd.	Black Pearl	EER	2828322	31J11	2024-06-12	2027-06-11	58.92
Graphano Energy ltd.	Black Pearl	EER	2828323	31J11	2024-06-12	2027-06-11	58.98
Graphano Energy ltd.	Black Pearl	EER	2828324	31J11	2024-06-12	2027-06-11	58.63
Graphano Energy ltd.	Black Pearl	EER	2828325	31J11	2024-06-12	2027-06-11	33.50
Graphano Energy ltd.	Black Pearl	EER	2828326	31J11	2024-06-12	2027-06-11	59.11
Graphano Energy ltd.	Black Pearl	EER	2828327	31J11	2024-06-12	2027-06-11	47.06
Graphano Energy ltd.	Black Pearl	EER	2828328	31J11	2024-06-12	2027-06-11	37.25
Graphano Energy ltd.	Black Pearl	EER	2828329	31J11	2024-06-12	2027-06-11	52.80
Graphano Energy ltd.	Black Pearl	EER	2828330	31J11	2024-06-12	2027-06-11	35.64
Graphano Energy ltd.	Black Pearl	EER	2828331	31J11	2024-06-12	2027-06-11	58.35
Graphano Energy ltd.	Black Pearl	EER	2828332	31J11	2024-06-13	2027-06-12	26.64
Graphano Energy ltd.	Black Pearl	EER	2828333	31J11	2024-06-13	2027-06-12	11.83
Graphano Energy ltd.	Black Pearl	EER	2838403	31J11	2024-10-23	2027-10-22	18.36
Graphano Energy ltd.	Black Pearl	EER	2838404	31J11	2024-10-23	2027-10-22	35.37
Graphano Energy ltd.	Black Pearl	EER	2838405	31J11	2024-10-23	2027-10-22	52.40
Graphano Energy ltd.	Black Pearl	EER	2838406	31J11	2024-10-23	2027-10-22	46.19
Graphano Energy ltd.	Black Pearl	EER	2841335	31J11	2024-12-17	2027-12-16	47.04
Graphano Energy ltd.	Black Pearl	EER	2841336	31J11	2024-12-17	2027-12-16	0.24
Graphano Energy ltd. [1]	Lac Aux Bouleaux	EER	2420583	31J05	2014-12-29	2027-12-28	59.37
Graphano Energy ltd. [1]	Lac Aux Bouleaux	EER	2420584	31J05	2014-12-29	2027-12-28	59.36
Graphano Energy ltd. [1]	Lac Aux Bouleaux	EER	2420585	31J05	2014-12-29	2027-12-28	59.36
Graphano Energy ltd. [1]	Lac Aux Bouleaux	EER	2420586	31J05	2014-12-29	2027-12-28	59.36
Graphano Energy ltd. [1]	Lac Aux Bouleaux	EER	2420587	31J05	2014-12-29	2027-12-28	39.93
Graphano Energy ltd. [1]	Lac Aux Bouleaux	EER	2420588	31J05	2014-12-29	2027-12-28	36.22
Graphano Energy ltd. [1]	Lac Aux Bouleaux	EER	2420589	31J05	2014-12-29	2027-12-28	36.04
Graphano Energy ltd. [1]	Lac Aux Bouleaux	EER	2420590	31J05	2014-12-29	2027-12-28	37.70
Graphano Energy ltd. [1]	Lac Aux Bouleaux	EER	2420591	31J05	2014-12-29	2027-12-28	37.78
Graphano Energy ltd. [1]	Lac Aux Bouleaux	EER	2506089	31J05	2017-11-22	2026-11-21	59.37
Graphano Energy ltd. [1]	Lac Aux Bouleaux	EER	2506090	31J05	2017-11-22	2026-11-21	59.37
Graphano Energy ltd. [1]	Lac Aux Bouleaux	EER	2506091	31J05	2017-11-22	2026-11-21	59.36
Graphano Energy ltd. [1]	Lac Aux Bouleaux	EER	2506113	31J05	2017-11-22	2026-11-21	59.38

Holder	Property	Type	Titles	NTS	Issue Date	Expiry Date	Area (Ha)
Graphano Energy ltd. [1]	Lac Aux Bouleaux	EER	2506114	31J05	2017-11-22	2026-11-21	59.38
Graphano Energy ltd.	Lac Aux Bouleaux	EER	2546435	31J05	2019-11-18	2027-11-17	59.36
Graphano Energy ltd.	Lac Aux Bouleaux	EER	2546436	31J05	2019-11-18	2027-11-17	59.36
Graphano Energy ltd.	Lac Aux Bouleaux	EER	2687307	31J05	2022-11-08	2027-11-07	4.86
Graphano Energy ltd.	Lac Aux Bouleaux	EER	2827085	31J05	2024-05-12	2027-05-11	59.36
Graphano Energy ltd.	Lac Aux Bouleaux	EER	2827086	31J05	2024-05-12	2027-05-11	59.36
Graphano Energy ltd.	Lac Aux Bouleaux	EER	2827087	31J05	2024-05-12	2027-05-11	59.36
Graphano Energy ltd.	Lac Aux Bouleaux	EER	2827088	31J05	2024-05-12	2027-05-11	59.36
Graphano Energy ltd.	Lac Aux Bouleaux	EER	2827089	31J05	2024-05-12	2027-05-11	59.35
Graphano Energy ltd.	Lac Aux Bouleaux	EER	2827090	31J05	2024-05-12	2027-05-11	59.35
Graphano Energy ltd.	Lac Aux Bouleaux	EER	2827091	31J05	2024-05-12	2027-05-11	59.35
Graphano Energy ltd.	Lac Aux Bouleaux	EER	2827092	31J05	2024-05-12	2027-05-11	59.35
Graphano Energy ltd.	Lac Aux Bouleaux	EER	2827093	31J05	2024-05-12	2027-05-11	59.34
Graphano Energy ltd.	Lac Aux Bouleaux	EER	2827094	31J05	2024-05-12	2027-05-11	59.34
Graphano Energy ltd.	Lac Aux Bouleaux	EER	2827095	31J05	2024-05-12	2027-05-11	59.34
Graphano Energy ltd.	Lac Aux Bouleaux	EER	2827096	31J05	2024-05-12	2027-05-11	59.37
Graphano Energy ltd.	Lac Aux Bouleaux	EER	2827097	31J05	2024-05-12	2027-05-11	59.37
Graphano Energy ltd.	Lac Aux Bouleaux	EER	2827098	31J05	2024-05-12	2027-05-11	59.37
Graphano Energy ltd.	Lac Aux Bouleaux	EER	2827099	31J05	2024-05-12	2027-05-11	59.37
Graphano Energy ltd.	Lac Aux Bouleaux	EER	2827100	31J05	2024-05-12	2027-05-11	59.37
Graphano Energy ltd.	Lac Aux Bouleaux	EER	2827101	31J05	2024-05-12	2027-05-11	59.36
Graphano Energy ltd.	Lac Aux Bouleaux	EER	2827102	31J05	2024-05-12	2027-05-11	59.36
Graphano Energy ltd.	Lac Aux Bouleaux	EER	2827103	31J05	2024-05-12	2027-05-11	59.35
Graphano Energy ltd.	Lac Aux Bouleaux	EER	2827104	31J05	2024-05-12	2027-05-11	59.35
Graphano Energy ltd. [2]	Standard	EER	2546156	31J11	2019-11-11	2027-11-10	59.17
Graphano Energy ltd. [2]	Standard	EER	2546157	31J11	2019-11-11	2027-11-10	59.16
Graphano Energy ltd. [2]	Standard	EER	2622068	31J11	2021-10-24	2028-10-23	59.17
Graphano Energy ltd. [2]	Standard	EER	2622069	31J11	2021-10-24	2028-10-23	59.17
Graphano Energy ltd. [2]	Standard	EER	2622070	31J11	2021-10-24	2028-10-23	59.16
Graphano Energy ltd. [2]	Standard	EER	2622071	31J11	2021-10-24	2028-10-23	59.16

1. *Lac-Aux-Bouleaux Option Agreement*
2. *Standard Option Agreement*

The LAB Property is sub-divided into 9 exploration zones based on history, exploration results, and prospectivity. These are Zone 1 though Zone 8 and the Pit Zone. The Standard and Black Pearl properties have not been sub-divided into exploration zones. The Mineral Project MRE includes graphite mineralization from Zone 1, Zone 3, and the Pit Zone of the LAB Property, the LAB deposit, and the Standard Property, the Standard deposit.

Property coordinates, using UTM NAD83 Zone 18N coordination, are centered at 456,701 m Easting and 5,134,394 m Northing within NTS Map Sheet 31J/O5 for the LAB Property, 482,962 m Easting and 5,154,263 m Northing within NTS Map Sheet 31J/11 for the Standard Property, and 492,465 m Easting and 5,152,776 m Northing within NTS Map Sheet 31J/11 for the Black Pearl Property. The three properties that comprise the Mineral Project are presented in Figure 4-1, Figure 4-2, and Figure 4-3.

Figure 4-1: Exclusive Exploration Right location map for the Mineral Project, Québec

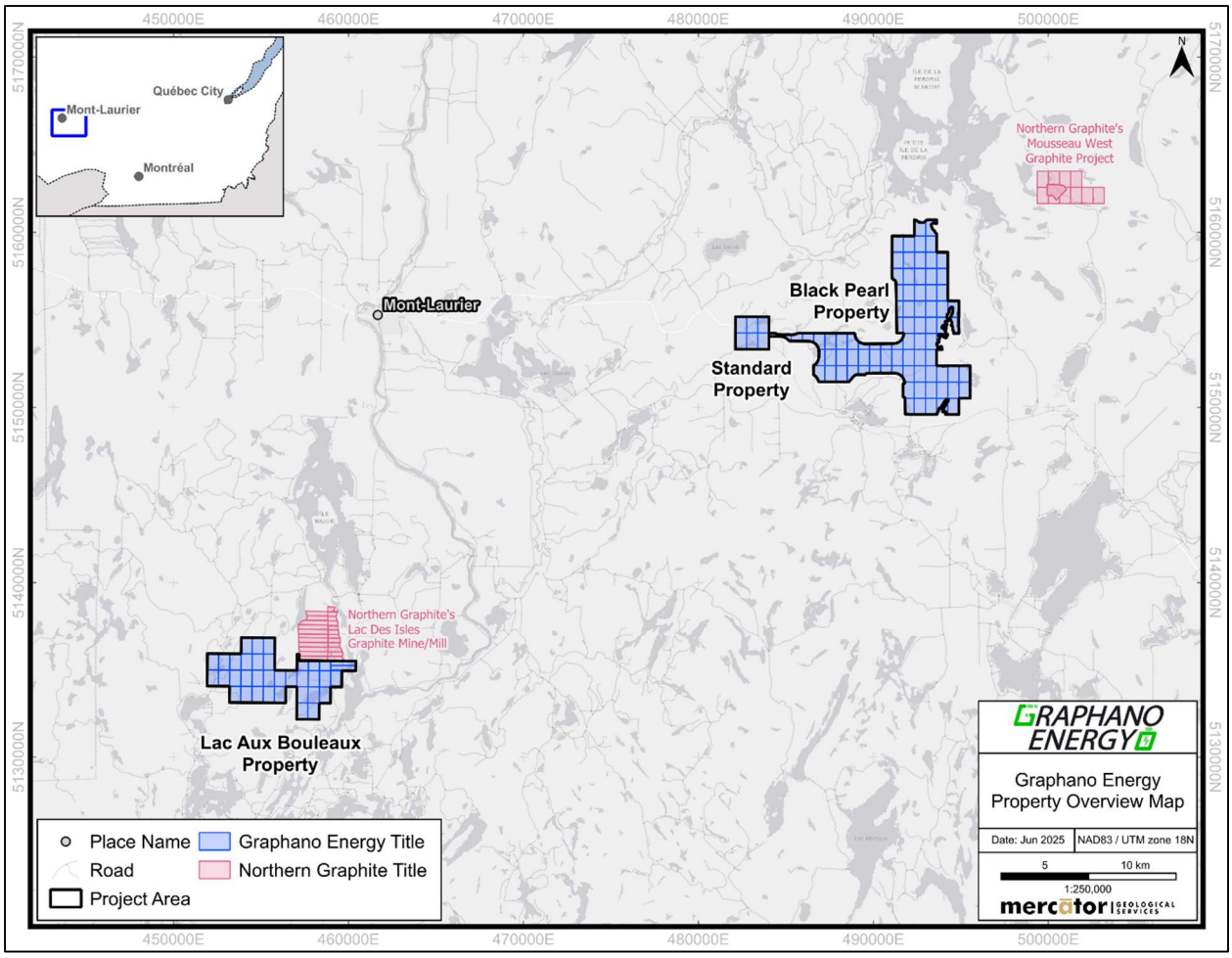


Figure 4-2: Exclusive Exploration Right location map for the LAB Property, Québec

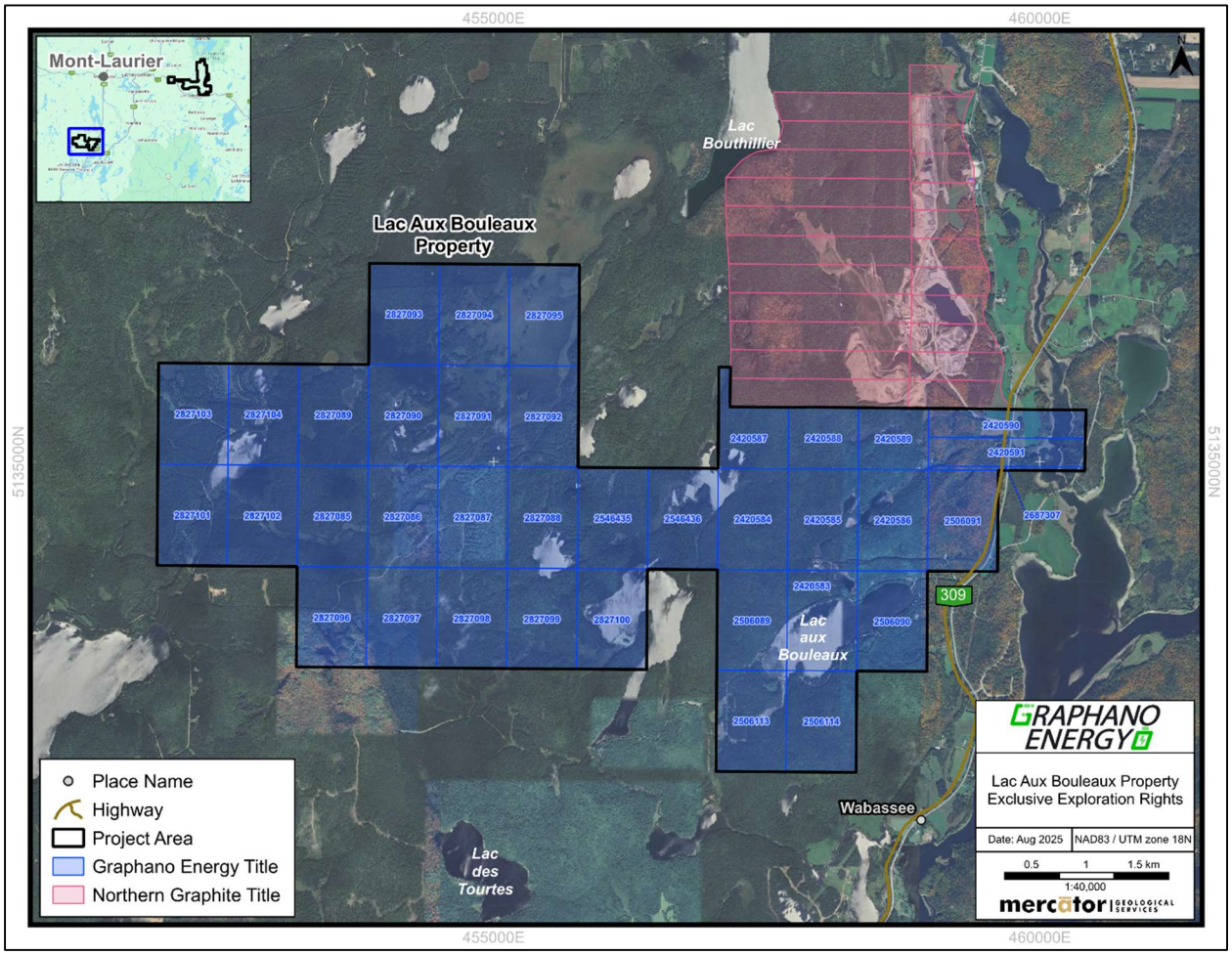
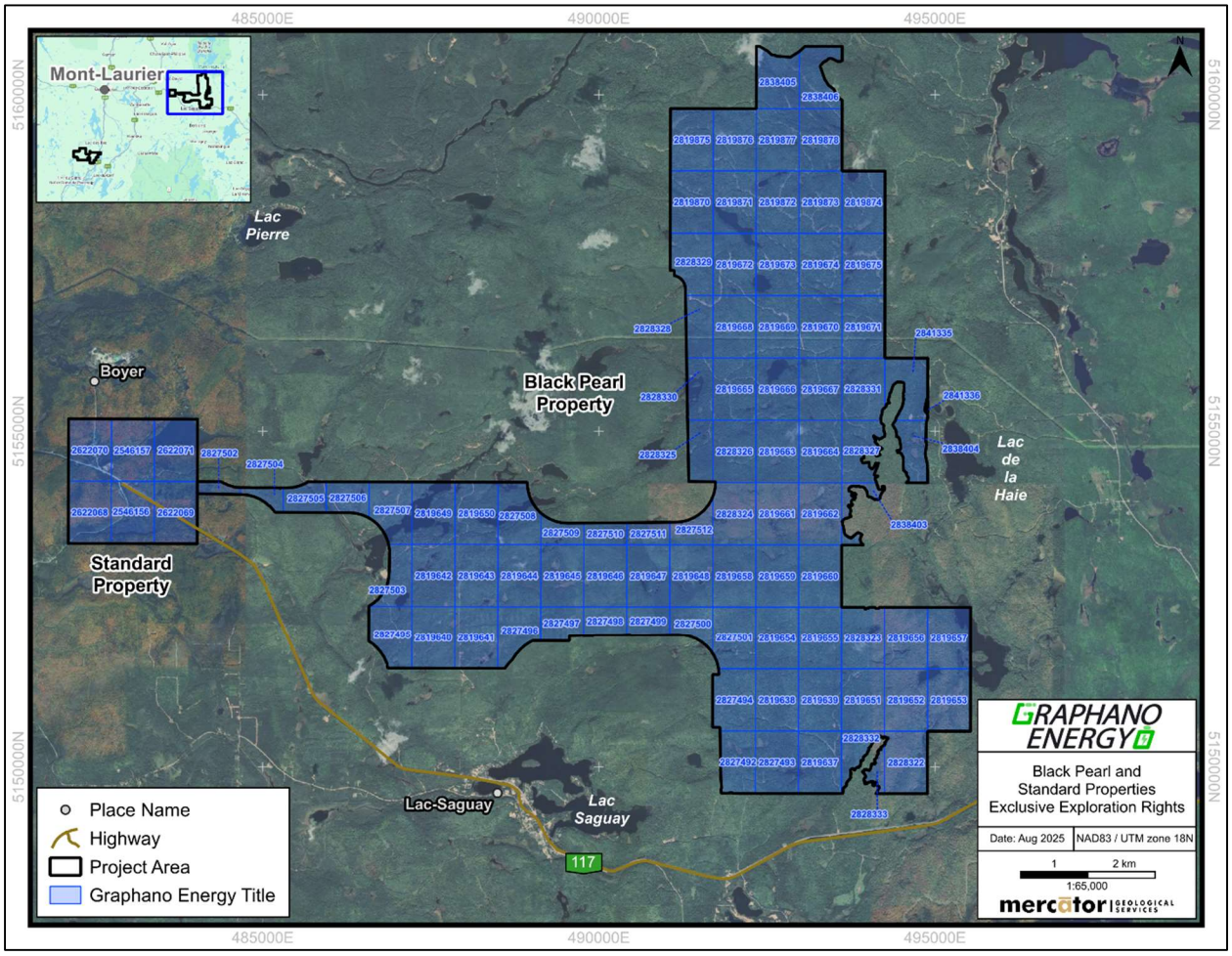


Figure 4-3: Exclusive Exploration Right location map for the Standard and Black Pearl Properties, Québec



4.2 Option Agreements, Joint Ventures, and Royalites

A portion of the EERs comprising the Mineral Project are or have been subject to the following option and royalty agreements:

1. The Lac-Aux-Bouleaux Option Agreement, subject to EERs 2420583, 2420584, 2420585, 2420586, 2420587, 2420588, 2420589, 2420590, 2420591, 2506089, 2506090, 2506091, 2506113, and 2506114, was entered between Geomap Exploration Inc. ("GEI"), the Vendor, and Mag X., the Purchaser, on June 24, 2019. Original terms included a 2% Net Smelter Return ("NSR") on commencement of commercial production, a cash payment of $10,000, and issuing $40,000 worth of common shares, whereas upon issuance of the agreed upon share consideration the NSR royalty would be null and void. The share consideration was issued September 23, 2021.
2. The Standard Option Agreement subject to EERs 2546156, 2546157, 2622068, 2622069, 2622070, and 2622071 was entered between Mr. Daniel St-Pierre, the Vendor, and Graphano, the Purchaser, on June 23, 2022 and amended on June 3, 2024. Terms include a 2% NSR on future commercial production, 50,000 common shares at closing, an additional 50,000 shares on the first anniversary, and an additional 100,000 shares plus a cash payment of $20,000 on the second anniversary.

No other option agreements, joint ventures, or royalties are present on the EERs that comprise the Mineral Project.

4.3 Mineral Rights and Land Access

In Canada, natural resources fall under provincial jurisdiction. In the Province of Québec, the management of mineral resources and the granting of exploration and mining rights for mineral substances and their use are regulated by the Québec Mining Act that is administered by the Ministry of Natural Resources and Forests ("MRNF" for Ministère des Ressources naturelles et des Forêts). Mineral rights are owned by the Crown and are distinct from surface rights. In 2024, the MRNF proposed a draft bill (#63) to amend the Mining Act and other provisions. This bill assented on November 29, 2024. Article 304.1.3, paragraph 1 of this amendment renders all parcels of land in the private domain incompatible with mining activities except for EERs designated prior to May 28, 2024. The Mineral Project is located on both private and crown land, and all private land EERs were issued prior to the required date. Agreements are required with private landowners for surface access to the EERs.

4.3.1 Exclusive Exploration Right ("EER")

In Québec, mineral tenures were previously referred to as map designated claims ("CDC"). The assent of Bill 63 has changed the nomenclature of the term "claim", which is now referred to as "Exclusive Exploration Right" as of November 29, 2024. An EER is initially valid for 3 years and can be subsequently

renewed every 2 years subject to the completion of necessary expenditure requirements, filing of assessment reports, and payment of renewal fees, which vary according to the surface area of the EER. Each EER gives the holder an exclusive right to search for mineral substances, except sand, gravel, clay, and other unconsolidated deposits on the land subjected to the EER. The EER also guarantees the holder's right to obtain an extraction permit upon discovery of a mineral deposit. Ownership of the mining rights confers the right to acquire the surface rights. EER is the main mean of acquiring a mineral tenure using the Québec online GESTIM Plus mining title management system on a first come, first served basis.

Table 4-3 below indicates the fees for registering and renewing EERs and other fees related to completing exploration activities on crown land in Québec.

Table 4-3: MRNF fees for EER registration and renewals

Mining Act Regulation	Description	Specification	Fees as of January 1, 2025
8	Map designation: Registration fee per EER north of the 52nd degree of latitude From 1 to 150 claims More than 150 claims	< 25 ha 25 to 45 ha > 45 to 50 ha > 50 ha	$40.75 $146.00 $165.00 $184.00 5 times the amounts per EER
	Map designation: Registration fee per EER south of the 52nd degree of latitude From 1 to 40 EER More than 40 EER	< 25 ha 25 to 100 ha > 100 ha	$40.75 $79.25 $120.00 5 times the amounts per claim
10	Renewal fees per EER North of the 52nd degree of latitude	< 25 ha 25 to 45 ha > 45 to 50 ha > 50 ha	$40.75 $146.00 $165.00 $184.00
	Renewal fees per EER South of the 52nd degree of latitude	< 25 ha 25 to 100 ha > 100 ha	$40.75 $79.25 $120.00
128	Fee for registration in the public register of real and immovable mining rights	Per mining right Maximum per deed	$22.50 $1,830.00

129	Duties payable for taking part in a drawing	Per application for authorization Per mining right (other cases)	$184.00 $184.00

4.3.2 Mining leases and concessions

The owner of a mining lease or mining concession has surface access and usage rights, except when the land is used as a cemetery. On public lands, access and usage rights are limited to mining purposes only. If the land covered by the lease or concession was granted or alienated by the Province, the lessee or concession holder must obtain the owner's permission to access the land and carry out work. The lessee or concession owner may acquire these rights through amicable agreement or, if necessary, by expropriation. On land leased by the Province, the lessee of a mining lease or the holder of a mining concession must obtain the consent of the lessee of the land surface or pay them compensation. In the event of a disagreement, a Québec court can determine this compensation.

On provincial or crown lands, a mining lease or concession holder may purchase or rent land to set up mine tailings or any other facility required for mining purposes. The holder may also obtain a right of way to install transport routes or tracks, pipelines and water conduits.

A lessee who wishes to set up a mill on land that is covered by his lease or lies outside its boundaries must first have the location approved by the Minister of MRNF. However, the location can be subjected an EIA or review in accordance with the Environment Quality Act, in which case the site must be approved by the Government.

The lessee or concession holder may use any sand or gravel that is present at the surface of the land covered by their lease or concession for activities related to mining. This permission only applies to public lands that are not subject to an exclusive lease to mine surface mineral substances. Any mining-related activities involving sand or gravel do not require a lease to mine surface mineral substances.
Any mining lessee may renew their mining lease for a 10-year period. The mining lease holder must file the application for renewal before the 60th day preceding the expiry of the mining lease. The application to renew a mining lease must include:

- the identity of the lessee;
- the number of the mining lease for which the renewal is requested;
- the serial number of the land file entered into the register of the Land Registry Office, or the identification number and registration number of the lease, as well as those of any renewals and transfers, if applicable;
- the amount representing the annual rent for the first year of the renewed lease, determined according to the rules stated herein;

- a report demonstrating that the holder has engaged in mineral exploitation on the land covered by the mining lease for at least two of the last ten years for which the lease was valid.

4.4 Permits Required for Exploration Activities

Beginning on May 6, 2024, an authorization ("ATI") from MRNF will be required before conducting impact-causing exploration work in Québec. The requirement stems from amendments made to the Regulation respecting mineral substances other than petroleum, natural gas and brine ("Regulation"). The following impact-causing exploration work is subject to an ATI: (1) work carried out using hydraulic machinery or explosives, in particular (a) excavating in overburden, (b) rock stripping, (c) bulk sampling, (d) overburden or bedrock drilling, or (e) seismic refraction geophysical surveys; or (2) work carried out using a hydraulic pump for gold mining purposes. The MRNF has indicated that an ATI is not required for low-impact on-site exploration work, exploration work on land covered by a mining concession or a mining lease, exploration within a tailings area, or underground exploration.

The MRNF will issue an ATI where a proponent satisfies the following conditions: (i) it has gathered and responded to the questions, requests and comments of the concerned municipalities and Indigenous communities; and (ii) it files a completed application form. The application form includes information required under the Regulation, in particular the identification of the zone of interest where the impact-causing exploration work will be carried out, the duration of the work, and a report on the exchanges with the applicable municipalities and Indigenous communities.

Under the Mining Act (Québec), the MRNF may impose conditions and obligations on the proponent related to the work to be carried out on the claim that take into consideration the local municipalities' and Indigenous communities' concerns about the exploration project.

Upon issuance, an ATI is valid for a term of two years and renewable for a 12-month period, subject to compliance with the conditions set forth in the Regulation.

Minimal additional permitting is required to undertake exploration work programs. For any trenching and drilling activities requiring tree-cutting and surface disturbance, Graphano will need to obtain certain permits and certification from relevant governmental agencies. This includes authorization to cut wood on claimed public territory from the MRNF.

A forest management permit can be obtained from a regional office of the Forestry Branch of MRNF and it authorizes the claim holder to carry out the forest management activities necessary to complete exploration activities. No authorization or permit is required for the delimitation of a line whose deforestation is less than one metre.

Further information on forms and permits required can be found at https://mrnf.gouv.qc.ca/mines.

4.5 Environmental Liabilities and Other Significant Risk Factors

The QP is not aware of any environmental liabilities associated with the Mineral Project. The QP is also not aware of any other significant factors and risks that may affect access, title, or the right or ability to perform work.

5.0 ACCESSIBILITY, CLIMATE, LOCAL RESOURCES, INFRASTRUCTURE AND PHYSIOGRAPHY

5.1 Accessibility

The Mineral Project is comprised of the LAB, Standard, and Black Pearl Properties that are situated near the town of Mont Laurier, Québec, within the Antoine-Labelle Regional County Municipality of the Laurentides region. Mont Laurier is located approximately 150 km north from Ottawa, along Highway 309, and 150 km northwest from Montréal, along Highway 117 and the A15. Both cities have international airports. The LAB Property occurs 20 km to the south of Mont Laurier by Highway 309, whereas the Standard and Black Pearl Properties occur 40 km and 60 km west along Highway 117, respectively. Tertiary and forest roads provide excellent access to the different areas of the Mineral Project.

5.2 Climate

The Mont-Laurier area has a continental temperate climate. Summers are typically warm, with average daytime temperatures ranging from 14°C to 26°C. Winters are typically cold and freezing, with average daytime temperatures ranging from -5°C and -18°C, with occasional colder periods. Precipitation is high year-round with generally significant snow cover in winter.

Exploration activities can be carried out in all seasons in this area, assuming that appropriate allowances are made for heavy snow conditions during winter months and thawing ground during spring break-up.

5.3 Local Resources and Infrastructure

Mont Laurier is located on the banks of the Riviere du Lièvre, a tributary of the Ottawa River that extends 330 km north to the Mitchinamécus reservoir. The 2021 Canadian census showed a town population of 14,180 and, along with the Mineral Project's proximity to Ottawa and Montreal, has good access to trained professionals in mineral exploration and mining. The local economy is based on agriculture, mining, forestry, and tourism and, as such, various industry and service providers are present in the area such as diamond drilling and geophysical survey companies.

The Mineral Project is sufficient in size to support future exploration and mining work programs. Hydro Québec power lines are located along the major highways, with several hydroelectric plants along the Riviere du Lièvre, and there are ample sources of water from local lakes, rivers and streams. Northern Graphite Corporations ("NGC") Lac-des-Îles Graphite Mine ("LDI") is adjacent to the northeastern boundary of the LAB Property.

5.4 Physiography

The Mineral Project is located within the Laurentian Region of the Canadian Shield. This subregion is characterized by uplands and highlands that are typical of the broader Canadian Shield Region. Extensive glacial activity has resulted in a distinctive undulating landscape featuring numerous glacial deposits of boulders, gravel, and sand. The average overburden depth at the Mineral Project is approximately 2 m.

The topography of the Mineral Project is consistent with the glaciated Canadian Shield, featuring low ridges and hills interspersed with low-lying areas of muskeg, alluvial plains, and a network of lakes, rivers, and streams for which the Rivière du Lièvre is the main drainage. The LAB and Standard Mine properties are located at an elevation of approximately 250 m and 390 m above sea level ("MASL"), respectively.

Most of the Mineral Project area is forested, with some farmlands near lakes and the river. The area's tree cover is primarily boreal forest, dominated by coniferous species such as white and black spruce and pines. Hard wood species include white and yellow birch, ash, elm, beech, and hemlock. Large mammals present include moose, deer, and black bear. Smaller fur-bearing animals in the area are wolf, fox, lynx, mink, marten, and beaver. The numerous lakes support abundant trout populations.

6.0 HISTORY

6.1 Summary

Exploration on the Mineral Project dates to the early to mid 1900's. Exploration history is detailed in various technical and assessment reporting however early exploration is not well recorded for all Mineral Project areas. The following describes the exploration history for the LAB, Standard, and Black Pearl properties.

6.2 Standard

From 1922 to 1930, a company known as the Canada Graphite Corporation was reported to have produced 1,713 tonnes of graphite concentrate from the Standard Property. Mining was focused on a graphite zone at depth of 40 m over a strike of 67 m in a north-easterly direction by a single shaft, adit and drift. The old shaft and adit are still observable on the property and numerous other shallow pits and trenches are also present. In 1922 A.O. Dufrense, on behalf of the Québec Department of Mines, completed 3 samples, 1 at the shaft, 1 west of the shaft, and 1 east of the shaft. Graphitic zones were reported to host high grade large flake graphite with widths between 3 and 10 m. Exploration before this period is not well documented.

Two geophysical surveys are reported to be completed in the area of historical mining. In 1957 Paul E. Dumont completed a resistivity survey and in 1983 Géola Ltée completed a Max-Min II survey using frequences of 1,777 and 444 Hz with a 61 m cable. Both geophysical surveys are reported to highlight a 500 m long zone in agreement with historical trenching.

6.3 LAB

6.3.1 Pre-1981: Italia Copper and M.H.M Syndicated

Graphite mineralization was discovered on the LAB Property by prospectors Mr. Phraz Arbic and Dr. L.J. Rue in 1957. A company called Italia Copper was subsequently formed and carried out stripping, diamond drilling, bulk sampling and deposit evaluations of large flake graphite. This included a drill program of 19 short holes using small diameter core in the Pit Zone area for geological and deposit evaluation.

Between 1958 and 1968, three metallurgical test work programs were carried out on bulk samples from the property. This includes test work conducted by the Department of Mines and Technical Surveys, Ottawa, in 1958, by T. Salmon, Mineral Dressing Consultant, in 1961, and the Department of Natural Resources, Québec, in 1963. These programs reported graphite recoveries ranging between 92.5% and 96% with graphite concentrate grades between 78.5% and 92.5%. These programs were reviewed by Orrwell in 1982 and it was concluded that results were favorable for mineralized material from LAB to produce a coarse flake high purity graphite concentrate at a low reagent cost.

Ownership by Italia Copper lapsed (date unknown) and the property was eventually acquired by M.H.M. Syndicate (date unknown), who carried out additional metallurgical testing and marketing studies in the United Kingdon. The property lapsed again and was staked in 1981 by C. Gordon Awde and subsequently purchased by Orrwell.

6.3.2 1981 to 1982: Orrwell Energy Corporation Ltd. ("Orrwell")

Orrwell's operation was focused on 539 ha of ground in 12 surveyed parcels within the current LAB Property boundary. Orrwell completed an exploration work program consisting of geophysical surveys, 84 diamond drill holes totalling 5,959 m, and a historical estimate and historical mining study. A mine plan was developed to mine Pit Zone graphite material to a depth of 20 m (65 ft) by open pit methods and then use underground stoping methods accessed by either decline or shaft. Orrwell operated an open pit mining operation that extracted an unspecified amount of material to a maximum depth of approximately 12 m until their operation terminated in 1983.

Orrwell completed three geophysical surveys during their operation including an electromagnetic 16 survey, a Max Min horizontal loop electromagnetic survey, and a magnetometer survey. Both the electromagnetic 16 and magnetometer survey were not considered useful for generating exploration targets. The horizontal loop electromagnetic survey was conducted on 15 m intervals and supported targeting for the 1981 – 1982 drill program as well as identifying 5 additional targets for graphite mineralization.

Following Orwell's operation, TIMCAL (subsidiary of Imerys, acquired by NGC in 2022) held the property until November 2014. No exploration work is documented between the 1982 and 2014 period.

6.3.3 2015 to 2017: Geomap Exploration Inc. / NRG Metals Inc. / Gold Port Resource Ltd.

GEI staked the property after TIMCAL let it lapse and during the 2015 to 2017 period the property had several operators.

In November 2015, NRG Metals Inc. contracted Dynamic Discovery Geoscience Ltd. to complete a high resolution heliborne magnetic and TDEM survey on the property. The survey was flown on November 19th and 20th, 2015. A total of 281 km was flown at an average altitude above ground of 91 m with traverses every 50 m oriented N115 and perpendicular control lines every 500 m. Final contoured cell size for the data was 10 m.

The survey was flown with a Eurocopter EC120B helicopter towing a ProspecTEM TDEM transmitter and receiver and a Geometric G-822A airborne magnetometer. The helicopter used Omnistar DGPTS navigation system, and a Pico-Envirotec AGIS-XP system recorded and integrated all inflight data from

position, altimeter, magnetic, and electromagnetic measurements. A GEM GSM-19 Overhuser was established at base station to correct for variations in the magnetic field, with inflight measurements taken every 0.1 second and base station measurements taken every 1 second. Data processing was completed in Geosoft Oasis Motaj Version 8.4 and Matlab 7 R20098B software.

Magnetic results were interpreted to delineate geological units and structural features, including numerous east-west and northeast-southwest faults. Electromagnetic results identified 7 anomalies most likely associated with graphite.

As a follow up to the airborne survey, Dynamic Discovery Geoscience Ltd. was contracted to conduct a ground TDEM PhiSpy survey on the property. Similar methods were used to produce more detailed definition on the airborne anomalies. The focus of the survey was adjacent to the Orrwell Mill building and 500 – 1000 m to the northeast, now identified as Zone 3 and Zone 1 respectively.

In May of 2015, Gold Port Resources commissioned a metallurgical testwork program to determine if a concentrate with a graphitic carbon grade of 95% or greater could be produced. A 42 kg Master Composite sample was produced from 6 of 10 field grab samples (60 kg total) considered by the company to be representative of graphite mineralization on the property. This program is discussed in detail in Section 13.

6.3.4 2017 - 2018: Graphite Energy Corp. (“GEC”)

GEC acquired the property in 2017 and carried out exploration programs that included prospecting, trenching and channel sampling, and diamond drilling.

The trenching and channel sampling program was completed between November 1st and 20th, 2017, and included limited prospecting and geological mapping of the area. Two trenches were excavated over conductors identified during the 2015 PhiSpy survey near Zone 1 and a total of 70 channel samples including 7 duplicates were taken. Channel samples were completed over a 1 m true thickness. In addition, 20 grab samples were taken from the mineralized areas.

All samples were submitted to SGS laboratories in Burnaby, BC, which is an independent ISO certified laboratory that implements its own QAQC protocols. Graphitic carbon grades were determined using double loss on ignition (“LOI”) and total carbon analysis by Leco using IR. The 20 grab samples returned an average grade of 10.5% Cg ranging between 2.2 and 22.3 % Cg. The trenches failed to intersect a significant graphite zone with most channel samples returning between 0.5 and 2% Cg.

Between the 11th and 23rd of March 2018, GEC completed a drill program the consisted of 4 NQ drill holes for a total of 385 m in the Pit Zone. All drill holes intersected zones with significant graphite mineralization.

6.3.5 2019: Manganese X Energy Corp. ("Mag X")

Mag X acquired the project in 2019 from then holder Afrzaal Pirzada. In November 2019, Mag X contracted Dynamic Discovery Geoscience Ltd. from Ottawa, under the supervision of Mr. Joël Dubé, P.Eng., to complete a ground TDEM PhiSpy survey on the property. The survey was completed along 4 separate grids and available trails for the purpose of better defining conductors identified during the 2015 surveys. Grid line spacing was set at 50 m and oriented perpendicular to the strike of the airborne anomalies with tie lines between each grid line. A total of 16.09 km of grid lines were cut along with 2.185 km of trails for a total of 18.275 km. Dynamic Discovery Geoscience in partnership with Xogenus provided the PhiSpy system to complete the survey. Geosoft Oasis Montaj version 9.7 software was used to process that data. Average sample spacing was completed at 0.12 m using a sampling rate of 5Hz. A total of 35.785 km of PhiSpy data has been collected and evaluated between both the 2015 and 2019 programs. The survey outlined several shallow conductors and 19 target locations were identified for future exploration programs, namely trenching and drilling.

6.4 Black Pearl

There are no graphite specific exploration programs documented for the Black Peral Property in the public domain The Black Pearl property was staked by Graphano after discussions with residents indicated that similar mineralization to the Standard Property is present and further investigation showed four outcrops were mapped in the area with visible graphite from a 1997 government reconnaissance work program. The western part of the current property, near Lac de la Haie, has been part of several exploration programs focused on polymetallic Zn and Ni-Cu-PGE deposits.

In 2000, Noranda Exploration Inc. completed stream sediment sampling program in the Ascension area. The program was designed to follow up on the presence of polymetallic Zn-Cd-As anomalies detected in stream sediments by the Québec Ministry of Natural Resources. A total of 166 samples were collected, with 25 samples located around Lac de la Haie and the centra- western limit of the current property boundary. Outcrops were observed primarily along logging roads, with the majority of lithologies encountered being paragneisses and quartzites accompanied by granite intrusion and, locally, impure calcitic marble containing paragneiss enclaves. Results from the 25 stream sediments were determined to not be anomalous for Zn.

In 2007 and 2008, Kaminak Gold Corporation and Breakwater Resources completed field mapping, sampling of showings, and an AreoTEM II time-domain survey over their Lac McCaskill property, which covered a small portion of the central-western extent of the current property boundary around Lac de la Haie. Focus was directed for Ni-Cu-PGE mineralization and verifying sulphide mineralization at the Lac McCaskill showing (approximately 70km east from the current property).

6.5 Historical Estimates

Orrwell prepared a historical estimate and historical mining study for the Pit Zone on the LAB Property in 1982. A QP has not done sufficient work to classify the historical estimate as current Mineral Resources. Graphano is not treating the historical estimate as current Mineral Resources and it is superseded by the MRE presented in Section 14. The historical estimate is considered relevant as it demonstrates the three-dimensional continuity of the deposit that hosts coarse flake graphite mineralization.

In 1982, Douglas Parent prepared a historical estimate and historical mining study for the LAB Property that now relates to the Pit Zone graphite mineralization (Parent, 1982). The historical estimate defined 1,198,252 tonnes with an average grade of 9% Cg. The historical estimate was based on a block model using a density of 2.76 g/cm^3. Various cut-off grades were used through the model to target an average deposit grade of 9% Cg. Interpolation methods were not disclosed.

There are no other recent historical estimates available to Graphano.

7.0 GEOLOGICAL HISTORY AND MINERALIZATION

The following information summarizes the regional geology, the local geology and describes the typical types of mineralization occurring on the Mineral Project.

7.1 Regional Geology

The Mineral Project is located in the southwestern portion of the Grenville Geological Province of the Canadian Shield. The Grenville Province is in contact with the Superior and Churchill Provinces to the north, restricted by The Grenville Front Tectonic Zone, and limited to the south by the sedimentary rocks of the St. Lawrence Platform and the Appalachian Province (Figure 7-1). In Québec, the Grenville Province is divided into two tectonic belts, the Parautochthonous and Allochthonous, separated by the Allochthon Boundary Thrust (Rivers et al., 2012). The Parautochthonous is composed of mostly Archean rocks and the Allochthonous is composed of Paleoproterozoic to Mesoproterozoic rocks. Geographically, the Grenville Province is subdivided into three parts, west, central, and east (Figure 7-2). The Mineral Project is located in the west part of the Allochthonous tectonic belt.

Intense ductile deformation occurred during the Grenvillian orogenic cycle (1,900 Ma to 970 Ma; Moukhsil and Solgadi, 2018). Distinct phases of orogenic activity during this cycle thrusted different terranes up and over each other and resulted in a series of large eastward-dipping supracrustal belts, each one dipping eastward below successively younger ones. The terranes are fault-bounded crustal blocks that are exposed over a wide belt from southwestern Ontario, through northern New York State to Labrador. The Mineral Project is underlain by the Central Metasedimentary Belt ("CMB") of the Grenville Province (Figure 7-3), which is comprised of Mesoproterozoic supracrustal and intrusive upper amphibolite- to granulite-facies rocks formed between 1.23 and 1.18 Ga (Rivers et al., 2012, Gower and Krogh, 2002).

The CMB is comprised of quartzofeldspathic rocks, quartzite, biotite gneiss, recrystallized limestone and marble, and locally pegmatitic quartzofeldspathic rocks. The CMB is subdivided into two domains based on lithological predominance: a north-northeast trending marble-rich domain to the west and a quartzite-rich domain to the east. The Mineral Project is located within the marble-rich domain that is characterized by marble and paragneiss. Protoliths to the quartzite and marble domains were shallow-marine and platform sediments, respectively, accreted to the Laurentian continental margin in a retroarc foreland fold basin environment during collision to form Rodinia. Granitic to tonalitic gneiss complexes form a series of domes structurally below the marble and quartzite assemblages (Corriveau and Morin, 2000).

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.

Figure 7-1: Grenville Geological Province and tectonic belts

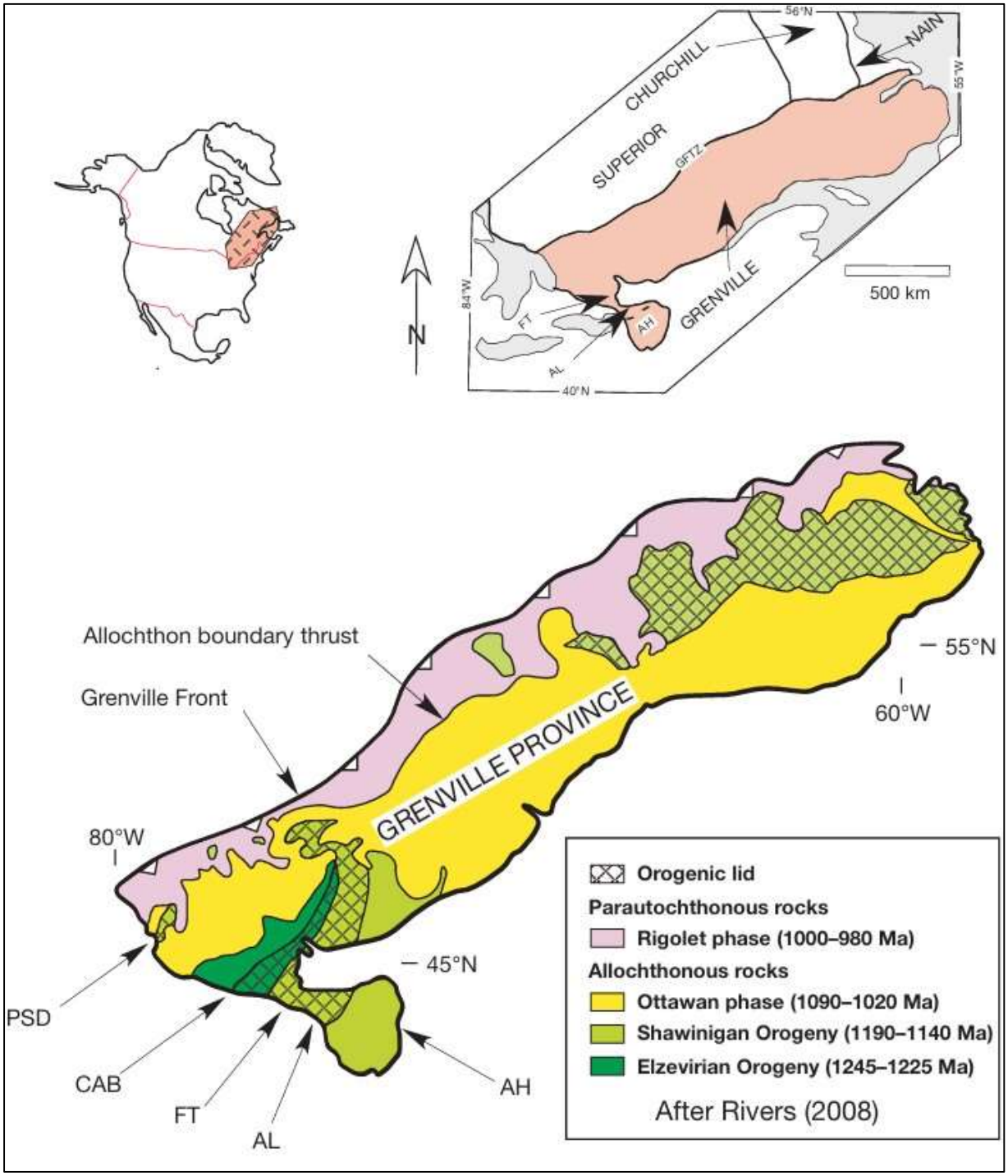
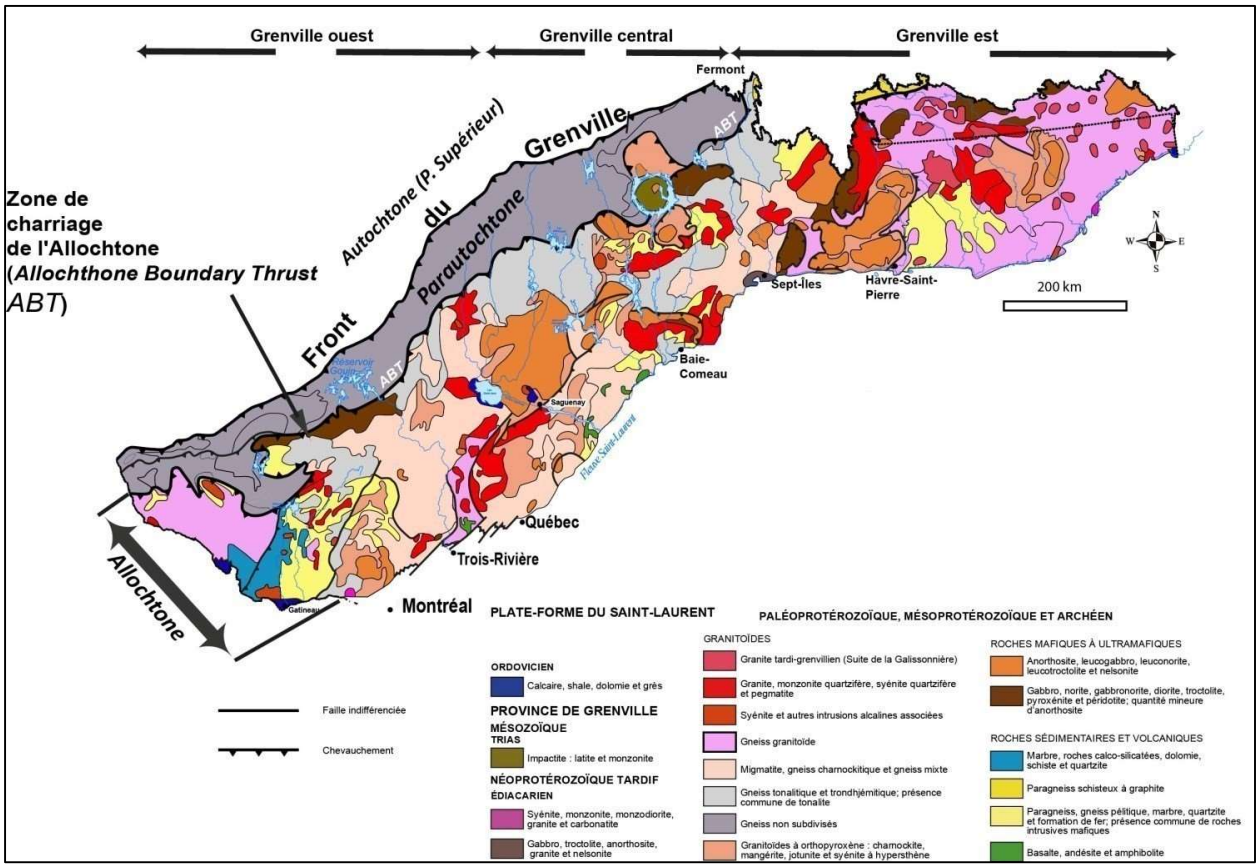
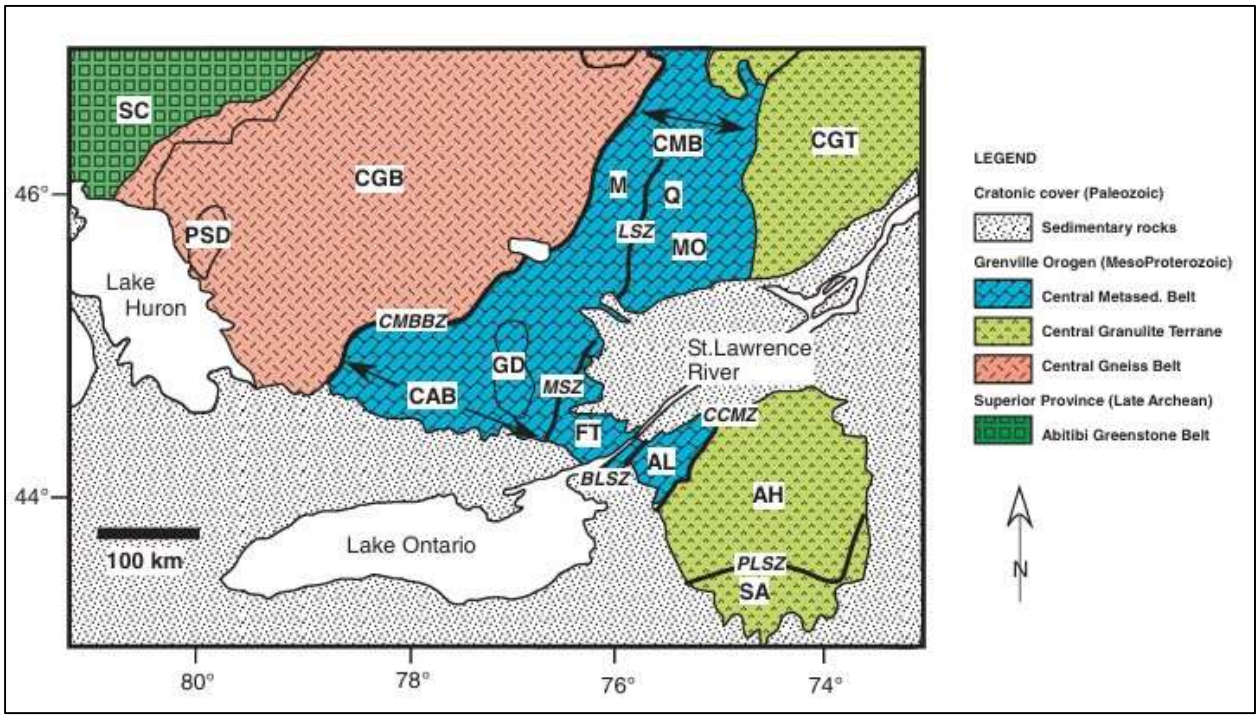


Figure 7-2: Simplified geological map and major lithotectonic subdivisions of the Grenville Province



(Modified from Mouskhil and Solgadi, 2018)

Figure 7-3: Central Metasedimentary Belt of the Grenville Province

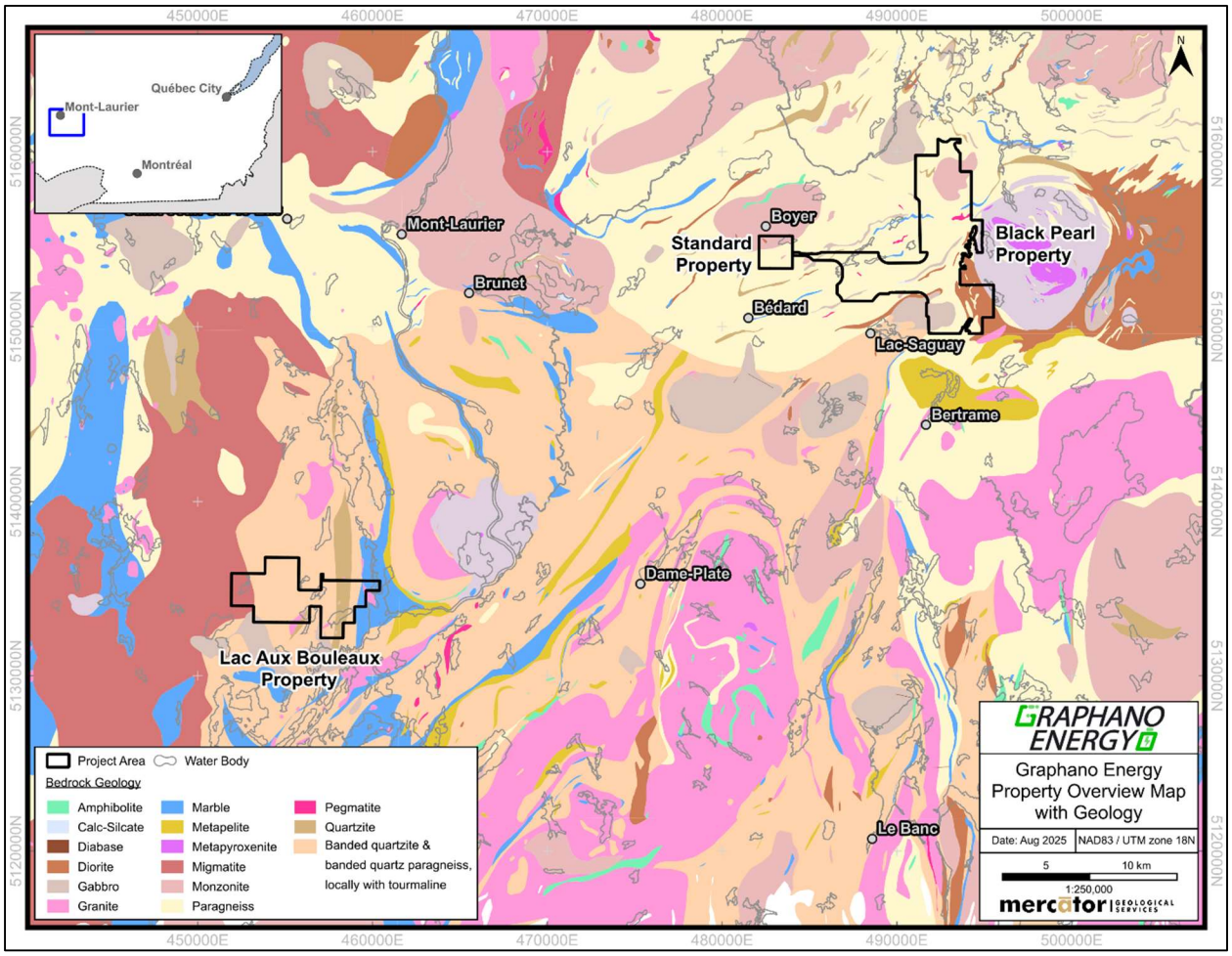


(Originally modified from Rivers, 1997)

7.2 Property Geology

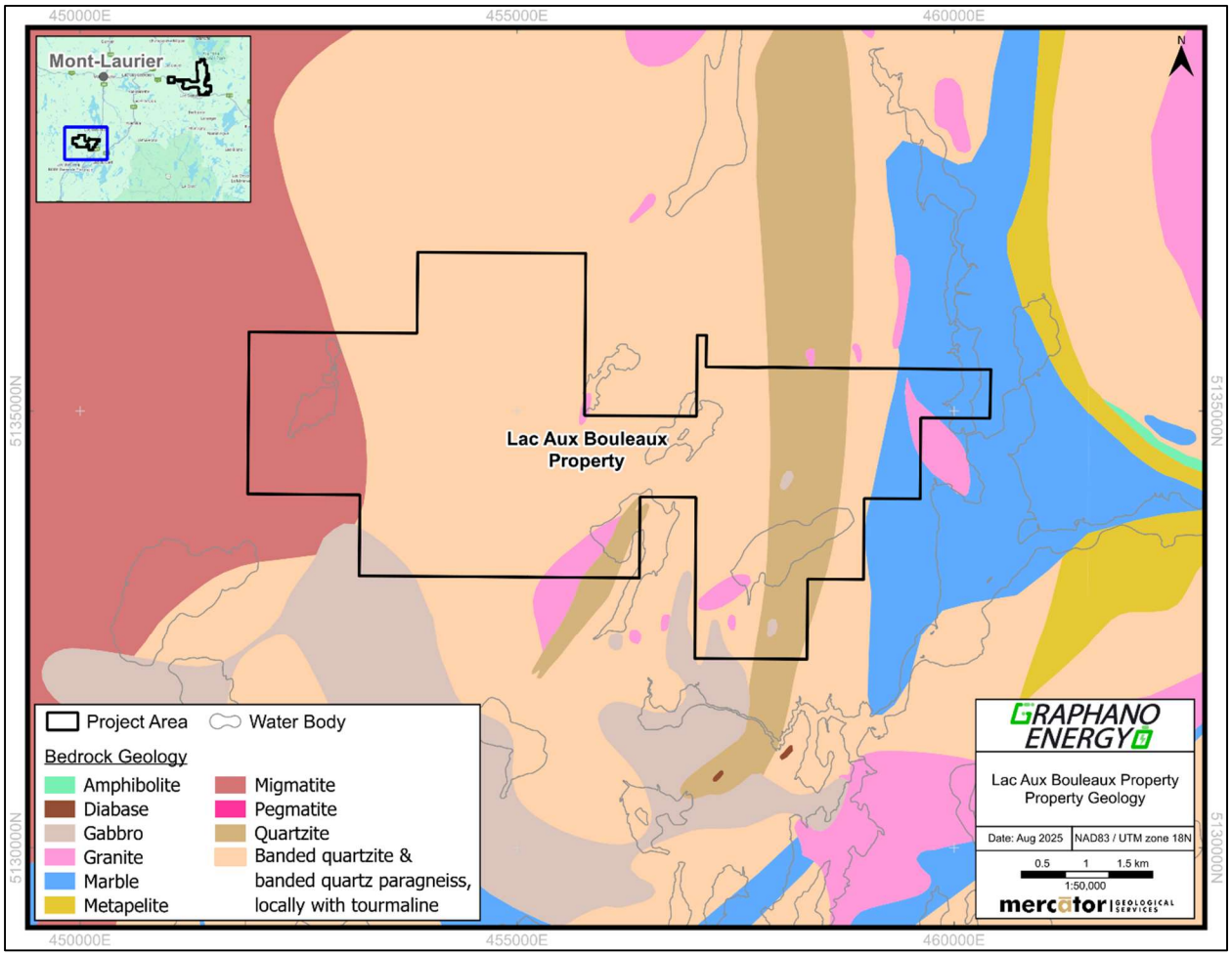
The Mineral Project is underlain by Precambrian metamorphic and intrusive rocks belonging to the Grenville series. The host rocks of the deposit are of amphibolite- to granulite-facies and, at the property scale, have commonly been grouped as quartzite, paragneiss, recrystalized limestone and/or marble (dolomitic and calcite marble), migmatites, amphibolites, and metamorphic pyroxenites. Stratigraphically these rocks occur in varying and alternating sequences and are intruded primarily by granites and syenites and more rarely by diorites, gabbro, and ultrabasic dykes. Pleistocene age unconsolidated deposits are widespread in the region and overly the Mineral Project. Geology maps based on the SIGEON regional geology are presented in Figure 7-4, Figure 7-5, and Figure 7-6.

Figure 7-4: Mineral Project geology map



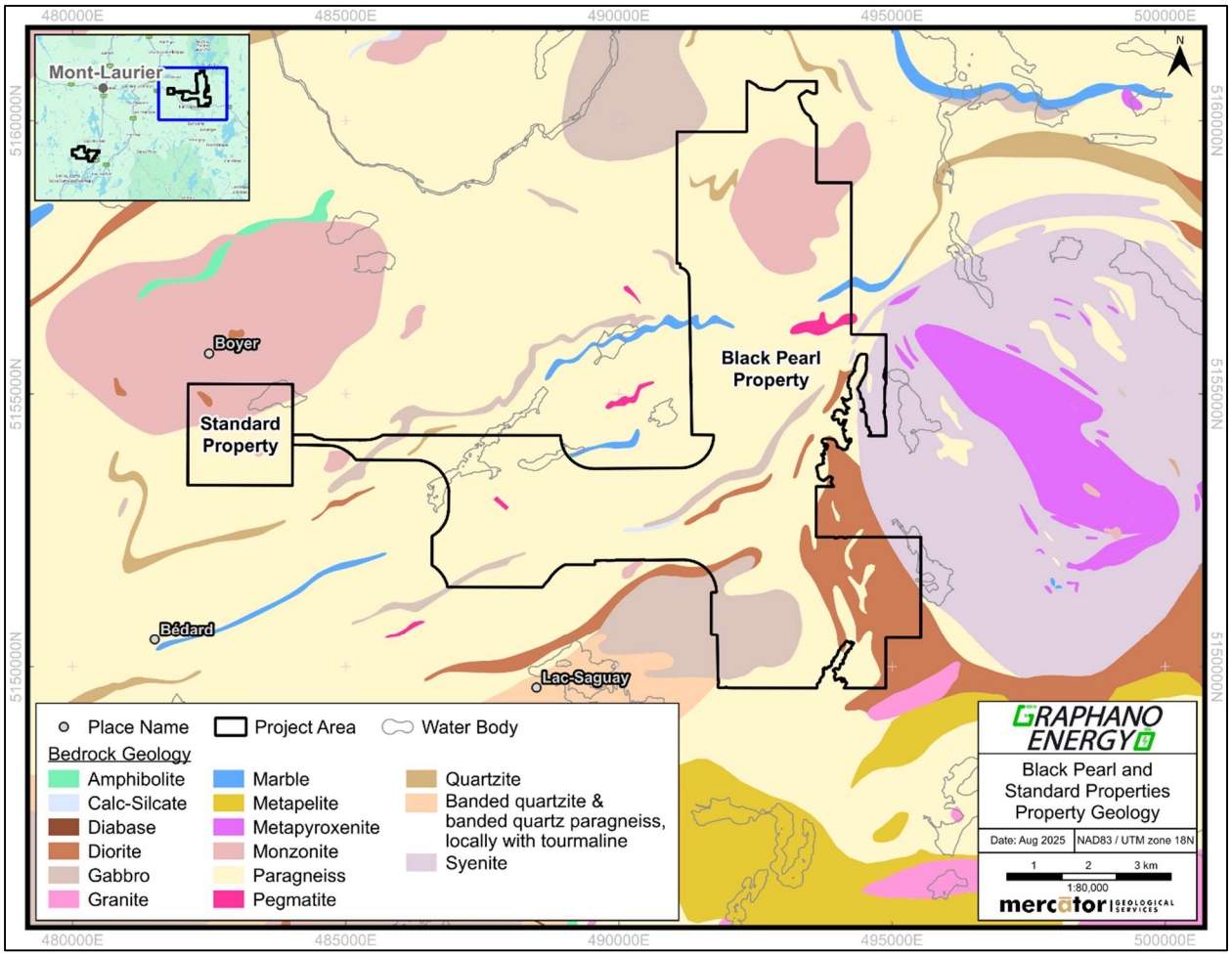
(Modified from SIGEOM 2025)

Figure 7-5: LAB Property geology map



(Modified from SIGEOM 2025)

Figure 7-6: Standard Property and Black Pearl Property geology map



(Modified from SIGEOM 2025)

The recrystalized limestone - marble is the primary host unit of large flake graphite. It is typically a light-coloured white to pale grey rock but can occasionally be pink or reddish. These horizons are extremely ductile and have been folded and boudinaged when enclaved between two gneiss lithologies, with graphite-enrichment in the fold hinges. The unit is typically medium grained but can locally demonstrate a high degree of variability in appearance and grain size. Stratification is no longer visible due to recrystallization during metamorphism. Common accessary minerals, in addition to graphite, include quartz, feldspar, phlogopite, and calc-silicates.

Paragneisses are widely developed throughout the Mineral Project and are principally grouped as garnet gneiss with sillimanite-plagioclase +/- orthopyroxene quartz or as biotite gneiss with plagioclase +/- orthopyroxene-clinopyroxene-quartz. The paragneisses are generally fine to medium grained. All compositional varieties can contain some level of graphite conforming to the beds in regular bands.

Graphite enrichment can also be present in shear zones at the contact of the paragneiss and recrystalized limestone - marble units. Narrow quartzite interbeds can be found locally within the paragneisses.

Migmatites are also widely distributed throughout the Mineral Project and are feldspathic granitized gneisses. Granitization of the gneisses was very localized given the proximity with unchanged paragneisses. The migmatites are garnetiferous but typically in smaller amounts and with smaller grain sizes than the gneisses from which they were derived. They are, in some places, intersected by many aplitic veinlets that can be both concordant and discordant with banding.

Quartzites, amphibolites, and metamorphic pyroxenites are also present in varying abundance. The quartzites are grey- glossy-looking rocks that generally contain feldspar, which may be kaolinized, mica and in many places both graphite and garnet are present. The feldspathic quartzites can locally resemble fine-grained, light-coloured granite. The amphibolites are massive without schistosity, consisting of green to black amphibole with plagioclase, biotite, sphene, apatite and epidote, and can be found with both the recrystallized limestone - marbles and paragneisses. The amphibolites are mostly medium grained and show a “salt and pepper” texture. The metamorphic pyroxenites tend to be very heterogeneous and are composed primarily of diopside with large amounts of pyrite and pyrrhotite, for which oxidation gives a rusty appearance in outcrop.

Granitic intrusive rocks are numerous in the region. These are most commonly gneissic biotite granites that are pink, pinkish-grey, or pale grey in colour. Some varieties are low in mica and can grade into aplites. The predominant feldspar is microcline. The recrystallized limestone – marble can have irregular masses of coarse grained to pegmatitic white granite that is low in mica and, similarly, the granites can have crumpled inclusions of recrystallized limestone - marble. This relationship between the carbonates and granites is indicative of the intense deformation within the Grenville. Pegmatitic dykes, primarily composed of microcline with quartz and little biotite, can be present locally with the granitic intrusives and are generally irregular in form and limited in extent.

Gabbroic bodies are also present throughout the Mineral Project. They are characterized as massive with variable grain size that, in places, are described as pegmatitic. In some areas the gabbros show alteration to pyroxene othrogneiss. Petrographic studies indicate the rock is severely crushed and contain hypersthene, biotite, hornblende and minor quartz in addition to augite and plagioclase. As such, it has been classified as quartzose micaceous hypersthene-bearing grabbro. The gabbros tend to be resistive to erosion and form rugged hills and escarpments.

Basaltic dykes trending northeast-southwest can be found within the recrystallized limestone - marble units. These dykes are, for the most par, tightly folded, stretched out, and broken, most often occurring as small segments of less than a few meters.

The unconsolidated surficial deposits of glacial, fluvial, and lacustrine origin cover a large part of the region. The glacial deposits are well developed on hills which are symmetrically aligned. Glacial striations indicated a south 10^{o} east direction of movement. Groups of eskers are generally aligned in a north-northeast direction. Post glacial fluvial and lacustrine deposits generally consist of grey clays, yellow quartzose sands, gravels, and boulders. Sand mixed with gravel commonly occurs over large flat or gently rolling areas.

7.3 Mineralization

Large flake graphite mineralization is hosted in a strongly folded recrystalized limestone - marble unit (Figure 7-7) within a paragneiss host rock. Internal waste units of paragneiss and intrusive rocks have been identified within the carbonate unit. Paragneiss sequences are also graphitic but generally at sub-economic concentrations. Pyrrhotite and pyrite are commonly present within the graphitic units totalling 3% to 5%, and at surface can result in a rusty appearance due to weathering (Figure 7-8).

Figure 7-7: Graphite mineralization within the host recrystallized limestone – marble unit (LB-23-56, LAB Property)

(Mercator 2025)

Figure 7-8: Massive graphite located within a trench on the eastern limb of the Standard Property

(Mercator 2025)

The protolith is thought to be platform sediments accreted in a retroarc foreland fold basin environment. A carbonate platform rich in organic matter precipitated on top of clayey carbonaceous sandstone that was subsequently overlain with sandstone and clay horizons during a terrigenous sedimentation event. Metamorphism during the Grenville orogeny transformed the sedimentary sequence into to biotite gneiss, graphitic recrystallized limestone - marble, and garnet gneiss. The graphite mineralization is thought to be derived from the metamorphism of organic matter together with the contribution of deep fluids rich in CO_2, with slow cooling of the mineralized material producing crystalline large flake graphite.

The calcite content of the recrystalized limestone - marble tends to be higher towards the core than at the margins, where they become more silicious with diopside. Zonation of calcite content is generally gradational and thought to reflect the chemical composition of the original carbonates. The contact between the recrystalize limestone – marble and host paragneiss is sharp.

At the LAB property felsic to mafic intrusions, including pegmatites, are typically less than a few meters. They most commonly occur along shear zones and at unit contacts such as between the recrystalized limestone – marble with the surrounding paragneiss and can disrupt continuity locally. Monzonite

intrusions are present in the northern part of both the Standard and Black Pearl properties. At the Standard Property, this intrusion appears to have a significant influence on the continuity of the graphitic units and has resulted in an increased frequency of intrusive units observed in drill core. The overall distribution of intrusive units at the Standard Property is currently not well understood.

At least two major folding episodes and one minor episode deformed the original Grenville sequences. Ductile deformation of the recrystalized limestone - marble is thought to result in repetition of the mineralized horizons with accumulation of graphite mineralization in fold noses. This deformation also results in boudinage structures and thereby influencing depth and continuity at which graphitic mineralization occurs. Folding is seen on all scales, from less than one metre to hundreds of metres. The thickness of the recrystallized limestone - marble varies from an average of approximately 5 m to 10 m and can be thicker in the fold noses.

The sequence also underwent several phases of brittle deformation that are primarily defined as a set of north-south normal faults dipping to the west and a second set of sinistral east-west faults. Faulting disrupts continuity of mineralization both locally and regionally. The combination of both ductile and brittle deformation has resulted in various orientations of graphitic units throughout the Mineral Project.

The LAB Pit Zone reflects a broad antiform structure, with one limb striking north and dipping moderately to steeply to the east and another limb striking west and dipping moderately to steeply to the north. LAB Zone 3 reflects a broad synform structure with a hinge line trending northeast-southwest and shallow to steeply dipping limbs. Within these broad folded structures individual units may be isoclinally folded. LAB Zone 1 is comprised of two discrete graphitic horizons that orient north-south and steeply dip to the west that may be sub-parallel limbs of a fold or a displaced horizon from faulting. Like LAB Zone 3, the Standard deposit has been interpreted as a broad synform with moderate to shallow dips.

8.0 DEPOSIT TYPES

Graphite mineralization is typically described by two main genetic models; syngenetic and epigenetic (Luque et al., 2014). Syngenetic graphite mineralization results from the conversion of carbonaceous matter through contact or regional metamorphism. Epigenetic graphite mineralization results from precipitation of carbon-bearing hydrothermal fluids or, less commonly, melts. These two genetic models represent end members, and some deposits have graphite formed through both metamorphism (syngenetic) and hydrothermal (epigenetic) processes (Papineau et al., 2010; Luque et al., 2014).

Graphite mineralization may occur as amorphous graphite, flake graphite, or vein graphite, (Mitchell, 1993):

"Graphite generally occurs as a result of metamorphism (regional or contact) of organic matter in sediments. Flake graphite is assumed to be derived from fine-grained sediments rich in organic matter. As metamorphic grade increases, carbonaceous material converts to "amorphous" graphite. Flake graphite forms from its amorphous precursor at or beyond amphibolite grade metamorphism (Landis, 1971). Vein graphite is assumed to form by partial volatilization of graphite and subsequent recrystallization during regional granulite and/or charnockite facies metamorphism. Amorphous graphite is generally considered to have originated by thermal or regional metamorphism of coal or carbonaceous sediments.

Positive vanadium and nickel anomalies and negative boron anomalies are possible signatures for graphite if geochemical survey data are available. The presence of sulphides and trace amounts of uranium may be an indicator."

Amorphous graphite represents an aggregate of extremely fine lathes and is usually related with lower-grade metamorphic rocks that may also contain other carbonaceous material (Luque et al., 2014, Okuyama Kusunose and Itaya, 1987). Flake graphite is the scaly or lamellar form of the mineral and is usually found as disseminations in high-grade metamorphic rocks such as gneisses, quartzites, or granulite facies. Graphitic carbon deposited from hydrothermal fluids occurs in rocks from all depths in the Earth's crust and ranging in age from Precambrian to Tertiary (Rumble, 2014). Vein graphite is typically found in high grade metamorphic rocks, mainly granulites, but are usually spatially associated with fracture or vein sets such as along intrusive contacts of pegmatites with host limestones and schists (Mitchell, 1993). Vein graphite occurs as nearly monomineralic veins or nodules that can be tens of centimetres in size (Mitchell, 1993) and these epigenetic deposits provide the chemically purest graphite. Amorphous, flake, and lump graphite are commercial terms to designate cryptocrystalline (<70 um), crystalline, and coarsely crystalline graphite (Luque et al., 2014).

The Mineral Project is classified as a crystalline flake graphite deposit of syngenetic origin. These deposits are commonly hosted by porphyroblastic and granoblastic paragneiss, or pelitic gneiss, marbles, and quartzites (Harben and Kuzvart, 1996), with alumina-rich paragneiss and marble units in upper amphibolite or granulite metamorphic grade as the most favourable host rocks. They are usually stratabound with tabular, lenticular, or irregular mineralized bodies. As described above, graphite mineralization forms from the progressive transformations of the carbonaceous matter through prograde metamorphism, or graphitization (Kwiecinska and Petersen, 2004). Both structural and chemical modifications of the carbonaceous matter begin during the earlier stages of diagenesis and greatly affect the impurities and final product grade, which can vary from 75% C to 97% C (Luque et al., 2014). Landis (1971) tentatively concluded that graphite formation is primarily dependent on metamorphic temperature and forms above 400°C, with pressure and variation in starting material constituting secondary controls.

9.0 EXPLORATION

Graphite is conductive in nature and as such airborne and ground TDEM surveying is a commonly used tool to locate prospective areas for graphite mineralization during early-stage exploration. Prospecting and mapping are also important to identify areas that may have structural thickening and/or graphite enrichment. Graphano has generally applied a systematic exploration methodology that progresses from geophysical surveys and prospecting, to trenching and channel sampling, and finally diamond drilling and core sampling. This approach first identifies prospective areas through field reconnaissance and geophysical anomalies. Subsequent trenching and channel sampling verifies the presence of graphite, provides an initial characterization of the graphite mineralization, and helps provide orientation data to optimize drill hole programs. Diamond drilling finally provides definition of spatial, thickness, and grade characteristics of the graphitic zone.

Exploration programs completed by Graphano are discussed below exclusive of diamond drilling programs, which are described in Section 10. All samples collected by Graphano during the discussed exploration programs were bagged and tagged using best practices and were delivered to Actlabs for sample preparation and analyses as described in Section 11. All channel samples ranged from a minimum of 50 cm to a maximum of 100 cm long, 5 cm wide, and 3-5 cm deep cut in bedrock. Channel samples were collected perpendicular to the strike of mineralization.

9.1 LAB

Figure 9-1 presents the LAB Property and associated prospective Zones for graphite mineralization. The Pit Zone, Zone 1, Zone 3, Zone 4 and Zone 8 have been drilled by Graphano and returned significant graphite mineralization. The Mineral Project MRE includes the Pit Zone, Zone 1, and Zone 3. Anomalies associated with airborne and ground TDEM surveys completed in 2015 and 2019 respectively are highlighted. Figure 9-2 shows the locations of channel samples collected by Graphano discussed in this Section.

Figure 9-1: LAB Property with TDEM anomalies

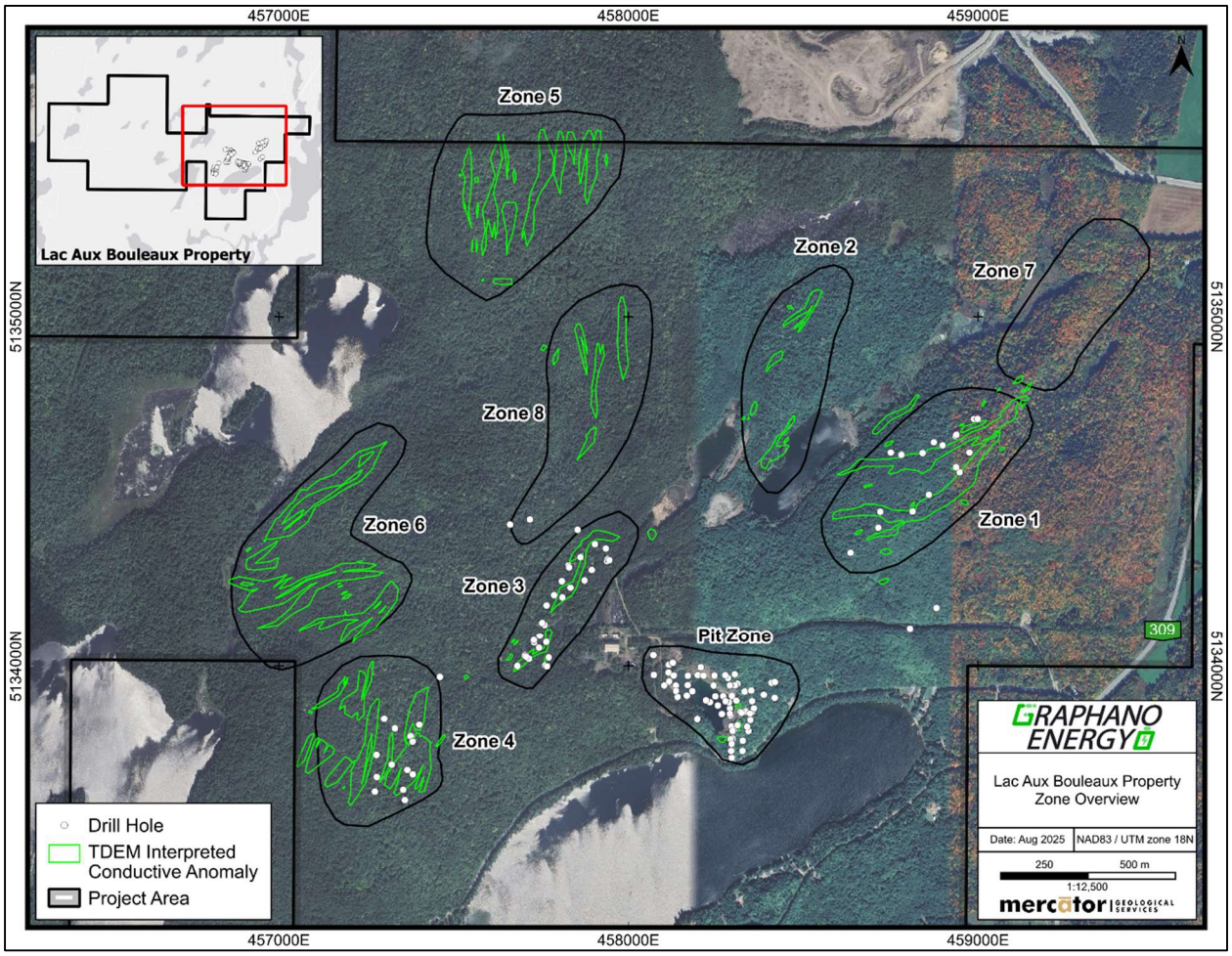
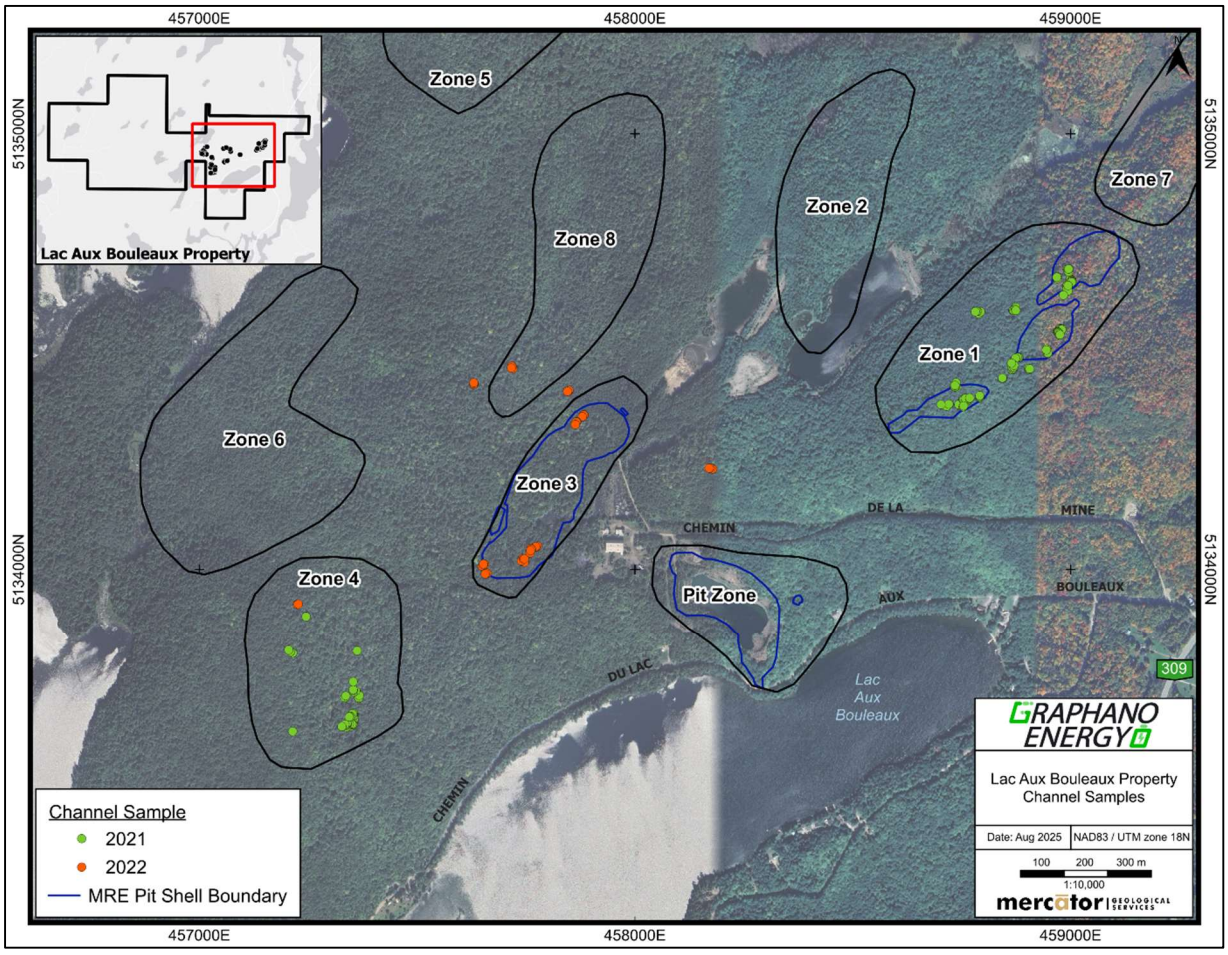


Figure 9-2: LAB Property channel samples



9.1.1 2021 Program

In 2021, Graphano completed a phase of prospecting, trenching, and channel sampling at the LAB Property. The work program was focused on two prospective areas identified by the airborne and ground TDEM surveys completed in 2015 and 2019 respectively. The first area of focus was Zone 1 northeast of the Pit Zone that was previously drilled by Orrwell. The second area resulted in the discovery of Zone 4 southwest of the Pit Zone.

Large flake graphite showings located on the property were confirmed with flake size in the range of 0.5 to 5 mm, typically present in shear zones at the contact of gneisses and marbles where the visual graphite content usually ranges from 2% to 20%.

A total 295 samples were collected during the 2021 program from grab and trench channel samples. The sample assays are in the range of less than 0.05% to 23.5% Cg, with about 30% of samples with a grade higher than 5% Cg. Highlight channel sample results from Zone 4 include 18.0% Cg over 4.0 m and 5.8% Cg over 8.0 m, including 14.8% over 3.0 m (true widths are unknown). Highlight channel sample results from Zone 1 include 7.9% Cg over 9.5 m, including 13.9% Cg over 4.5 m and 7.5% Cg over 3.5 m (true widths are unknown).

9.1.2 2022 Program

In 2022, Graphano completed a phase of prospecting, trenching, and channel sampling at the LAB Property. The work program was focused on two prospective areas identified by the airborne and TDEM surveys completed in 2015 and 2019 respectively. The first area of focus was Zone 3, northwest of the Pit Zone and northeast on trend with Zone 4. The second area is termed Zone 8 northwest and adjacent to Zone 3.

A total of 51 channel samples were collected during the 2022 trenching program. Highlight results are presented in Table 9-1. Three trenches completed near TR22-08 to the east of Zone 3 (TR22-06, 07, 09) and 2 trenches completed in the southern part of Zone 4 (TR22-16, 17) did not return significant mineralization. True widths are unknown.

Table 9-1: Select results from the LAB 2022 trenching program

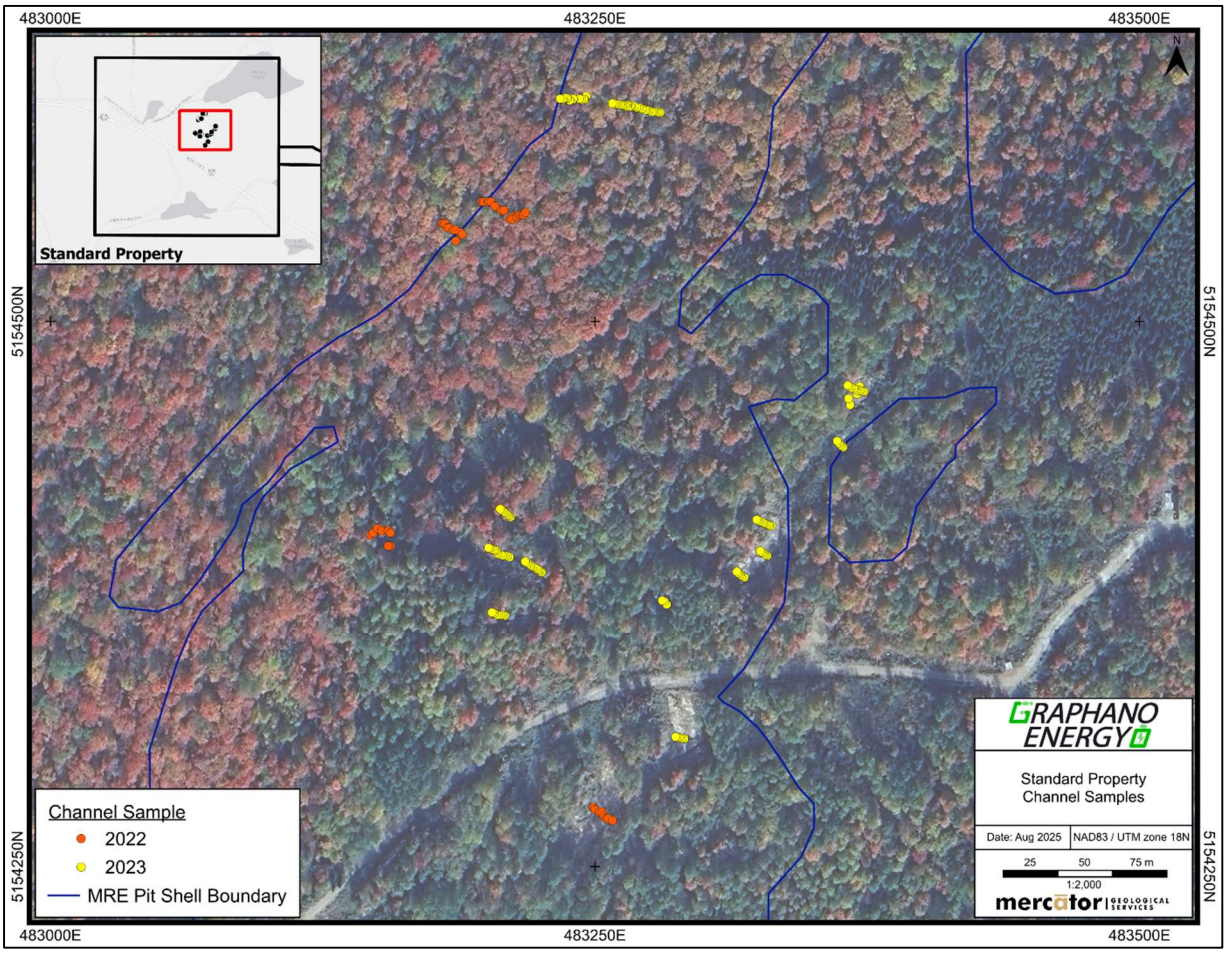
Zone	Trench #	Assay Results	Easting	Northing
Zone 3	TR 22-01	16.80% Cg over 2.0 m	457,856	5,134,339
Zone 3	TR 22-02	14.10% Cg over 3.0 m	457,875	5,134,352
Zone 3	TR 22-03	1.20% Cg over 4.0 m	457,844	5,134,403
Zone 3	TR 22-08	4.76% Cg over 3.0 m	458,177	5,134,232
Zone 3	TR 22-10	14.65% Cg over 5.0 m	457,774	5,134,047
Zone 3	TR 22-11	18.32% Cg over 3.72 m	457,762	5,134,040
Zone 3	TR 22-12	14.37% Cg over 6.0 m	457,752	5,134,027
Zone 3	TR 22-13	11.95% Cg over 4.0 m	457,657	5,134,011
Zone 3	TR 22-14	20.16% Cg over 3.68 m	457,659	5,133,991
Zone 8	TR 22-04	5.72% Cg over 4.0 m	457,719	5,134,460
Zone 8	TR 22-05	5.79% Cg over 2.0 m	457,635	5,134,429
Zone 4	TR 22-15	17.73% Cg over 3.0 m	457,229	5,133,927

* UTM NAD83 Zone 18N coordination

9.2 Standard

Figure 9-3 shows the locations of channel samples collected by Graphano discussed in this Section.

Figure 9-3: Standard Property channel samples



9.2.1 2022 Program

9.2.1.1 Spring 2022

In the spring of 2022, 20 surface grab samples were collected from numerous old trenches, pits and bedrock sources within a 100 m by 75 m area near the historic shaft area. This work was completed as a verification program to historical reports of multiple horizons of high-grade graphite mineralization. The grab sample assays range in grade from 5.32% Cg to 26.4% Cg. The average grade of the 20 samples collected was 19.8% Cg.

9.2.1.2 Summer 2022

On July 26 and 27, 2022, Prospectair completed a heliborne magnetic and TDEM survey for property under the supervision of Mr. Joël Dubé, P.Eng. One survey block was flown for a total of 39 l-km. A total of 2 production flights were performed using Prospectair's Airbus H125, registration C-GATM. A Geometrics G-822A magnetometer and ProspecTEM were used to complete the survey.

The Standard block was flown with traverse lines at 100 m spacing and control lines spaced every 1,000 m. The survey lines were oriented N140^{o} and the control lines were oriented perpendicular to traverse lines. The nominal height for the survey was 85 m, but the local topography and power lines resulted in an average height above ground of the helicopter of 90 m, with the mag sensor and receiver coil at 65 m and the transmitter loop at 40 m above the ground.

The airborne magnetometer data was recorded at 10 Hz and corrected against ground magnetometer measurements collected every second. The ProspecTEM recorded the vertical component (Z) of the receiver coils at a sampling rate of 90,000Hz. There are 30 full cycles (60 half cycles) of the full waveform (Tx ON and OFF time) every second. The TDEM data is subsequently leveled for gridding. Geosoft software Oasis Montaj version 2022.1 and Matlab R2018a were used for both data processing and gridding. The final grids were created with 20 m grid cell size, appropriate for the survey lines spaced at 100 m.

The first vertical derivative of the total magnetic intensity ("TMI") is presented in Figure 9-4 together with TDEM anomalies. The various magnetic anomalies are interpreted to have correlation with general lithologies of the area. Magnetic lineament data is interpreted to be related to both folding and faulting structural features and it is recommended a detailed assessment in this regard be completed. The TDEM results are interpreted to define prospective zones for graphite mineralization based on the type, strength, amplitude, and correlation with magnetic data (Figure 9-5)

Figure 9-4:: First vertical derivative of TMI and TDEM anomalies (2022)

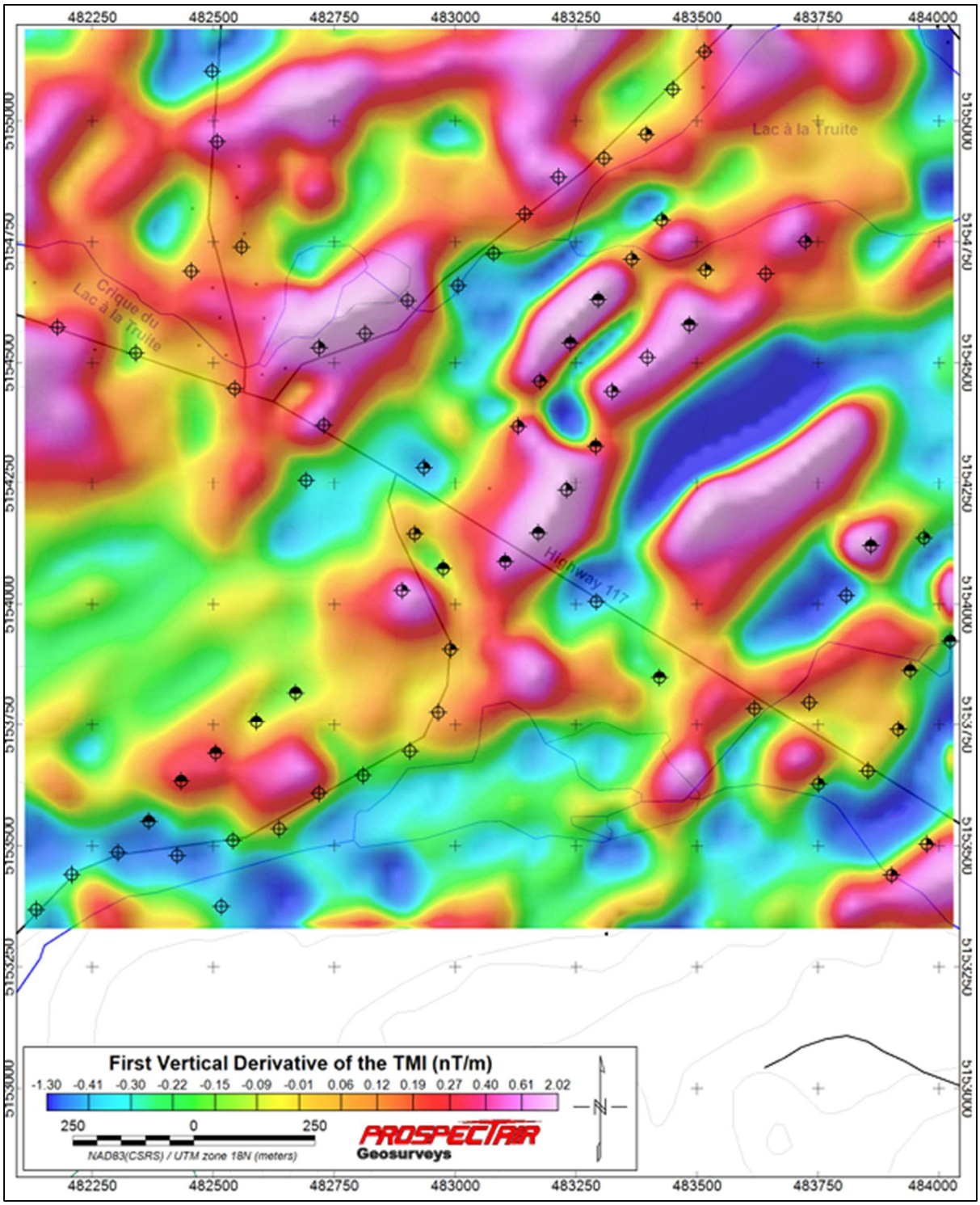
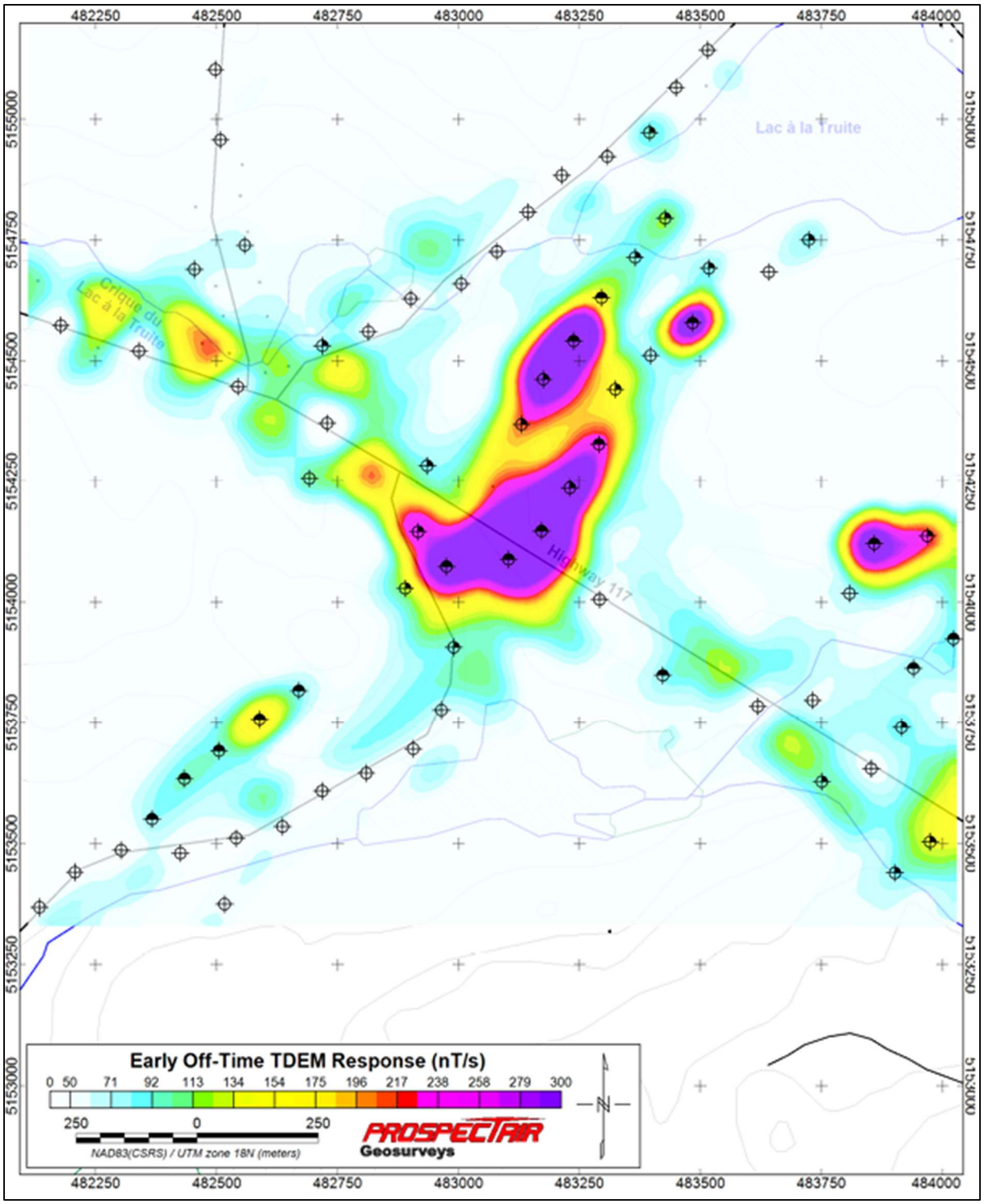


Figure 9-5: Early off-time TDEM response and anomalies (2022)



9.2.1.3 Fall 2022

In the fall of 2022, 4 trenches were excavated with 57 channel samples collected. The trenching program was a direct follow-up on anomalies identified during the summer magnetic and TDEM airborne survey. Summary trenching results are presented in Table 9-2. True widths for trenches TR22-18 through TR22-20 on the northwest airborne trend are estimated to be 50% of the sampled length. True widths for trench TR22-21 on the southeast airborne trend are interpreted to be 65% of the sampled length.

Table 9-2: Summary results from the Standard 2022 trenching program

Target	Trench	Easting (m)	Northing (m)	From (m)	To (m)	Length (m)	Cg %
NW Airborne Trend	TR22-18	483,207	5,154,552	0	26	26	6.21
NW Airborne Trend	TR22-19	483,185	5,154,543	0.5	10.5	10	11.8
NW Airborne Trend	TR22-20	483,150	5,454,405	0	10	10	5.06
SE Airborne Trend	TR22-21	483,245	5,154,278	0	9.5	9.5	10.3

* UTM NAD83 Zone 18N coordination

In addition to trenching, 14 grab samples were collected on the property that returned assay results between 1.26% Cg and 20.5% Cg with twelve samples grading over 11% Cg.

9.2.1.4 2023 Program

In the spring of 2023, a total 111 channel samples and 4 grab samples were collected from nine trenches that were excavated. The trenching program was conducted after the first 16 diamond drill holes were completed on the property and were targeting near surface strike extensions to known mineralization along the TDEM trends defined during the 2022 airborne survey.

Summary trenching results are presented in Table 9-3. True widths for trenches TR23-23, TR23-25 and TR23-26 are estimated to be 50% of the sampled length. True widths for trenches TR23-22, TR23-24 and 24B, TR23-28, and TR23-29 are unknown. True width for trench TR23-27 is estimated at 65% of the sampled length.

Table 9-3: Summary results from the Standard 2023 trenching program

Target	Trench #	Easting (m)	Northing (m)	From (m)	To (m)	Length (m)	Cg (%)
NW Trend	TR 23-25 East Channel	483,280	5,154,596	0	23	23	8.91
NW Trend	TR 23-25 West Channel	483,240	5,154,602	0	6	6	10.87
Hole 13 Area	TR 23-26 East Channel	483,225	5,154,385	1	8	7	15.17
Hole 13 Area	TR 23-26 West Channel	483,211	5,154,392	3	8	5	15.3
Hole 13 Area	TR 23-28	483,208	5,154,365	1	2	1	2.78
Hole 13 Area	TR 23-29	483,211	5,154,410	3	6	3	11.24
SE Trend	TR 23-22	483,283	5,154,370	1	2	1	12.7
SE Trend	TR 23-23 South Channel	483,318	5,154,383	1	4	3	8.6
SE Trend	TR 23-23 Central Channel	483,329	5,154,393	1	5	4	4.62
SE Trend	TR 23-23 North Channel	483,331	5,154,406	4	7	3	10.01
SE Trend	TR 23-24	483,364	5,154,462	0	4	4	5.75
SE Trend	TR 23-24 B	483,374	5,154,468	7	9	2	1.87
SE Trend	24B Grab Sample	483,367	5,154,462	n/a	n/a	n/a	22.7
SE Trend	24B Grab Sample	483,366	5,154,465	n/a	n/a	n/a	8.37
SE Trend	24B Grab Sample	483,370	5,154,467	n/a	n/a	n/a	10.8
SE Trend	24B Grab Sample	483,371	5,154,470	n/a	n/a	n/a	1.51
SE Trend	TR 23-27	483,291	5,154,308	1	4	3	10.27

* UTM NAD83 Zone 18N coordination

9.3 LAB and Standard Metallurgical Program

In the fall of 2023, Graphano engaged SGS to carry out metallurgical testing. Sample materials were collected from drill core obtained from several zones at the LAB and Standard properties. Samples from each zone were tested separately and a master composite that mimics a potential mill feed was also tested. Results from the program are described in Section 13.

9.4 Black Pearl

9.4.1.1 2024 Program

In the spring and summer of 2024, Graphano retained SPE to conduct a prospecting, trenching, channel sampling and geophysical work program on the Black Pearl Property.

A total of 8.4 km of ground electromagnetic surveys (Max-Min II and VLF-EM) were completed to further guide prospecting and to evaluate potential magnitude of graphite mineralization. The electromagnetic survey successfully defined a wide conductive corridor (75 to 150 m in width), hosting multiple anomalies, extending for 800 m.

A total of 42 individual channel samples, each 1 m in length, were collected from the Black Pearl Property. The trenched and stripped bedrock area has approximate dimensions of 40 m wide by 30 m long (1,200 m^2). The channel sample assay results ranged from 0.06% Cg to 21.9% Cg with 57% of the samples assaying greater than 15% Cg (24 of the 42 samples). The mineralized outcrop area was sampled by cutting four main channels across the mineralization. Two channels were cut on the east side of a forest road and two channels on the west side. The channels ranged from 5 m to 15 m in length (Figure 9-6). Summary results are presented in Table 9-5. Results are presented over sampled lengths and true widths are unknown.

Figure 9-6: Arial photo of Black Pearl stripped area

(SPE 2024)

Table 9-4: Summary results from the Black Pearl 2024 trenching program

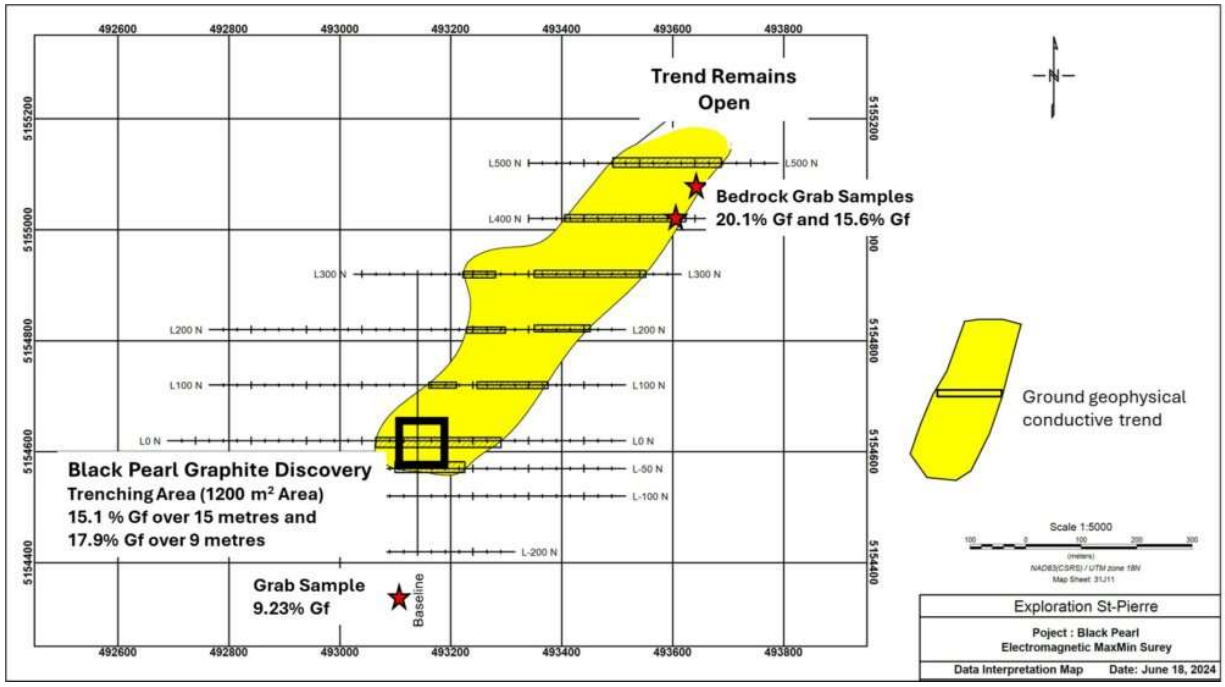
Channel Sample	Easting (m)	Northing (m)	From (m)	To (m)	Length (m)	Cg (%)
West Channel #1	493,128	5,154,621	1.00	15.00	14.00	15.1
West Channel #2	493,118	5,154,619	0.00	4.00	4.00	13.4
East Channel #1	493,139	5,154,604	0.00	9.00	9.00	17.9
East Channel #2	493,150	5,154,620	0.00	5.00	5.00	14.6

* UTM NAD83 Zone 18N coordination

In addition, two bedrock grab samples were collected from hand dug pits 700 m along trend to the northeast of the stripping area and returned grades of 20.1% Cg and 15.6% Cg. A float sample was collected and sampled southwest of the trenching area that returned 9.23% Cg.

Geological mapping of the Black Pearl trend indicates that the graphite mineralization is hosted in a sequence of paragneiss, marble, and quartzites. The stratigraphy typically strikes northeast-southwest and dips consistently to the southeast. In the mineralized stripped outcrop area folding is evident. Strikes can locally fluctuate to east-west and dips can locally range from sub-horizontal to 70^{o} to the southeast. Figure 9-7 presents the 2024 interpretation of the Black Pearl trend.

Figure 9-7: Black Pearl trend interpretation (2024)

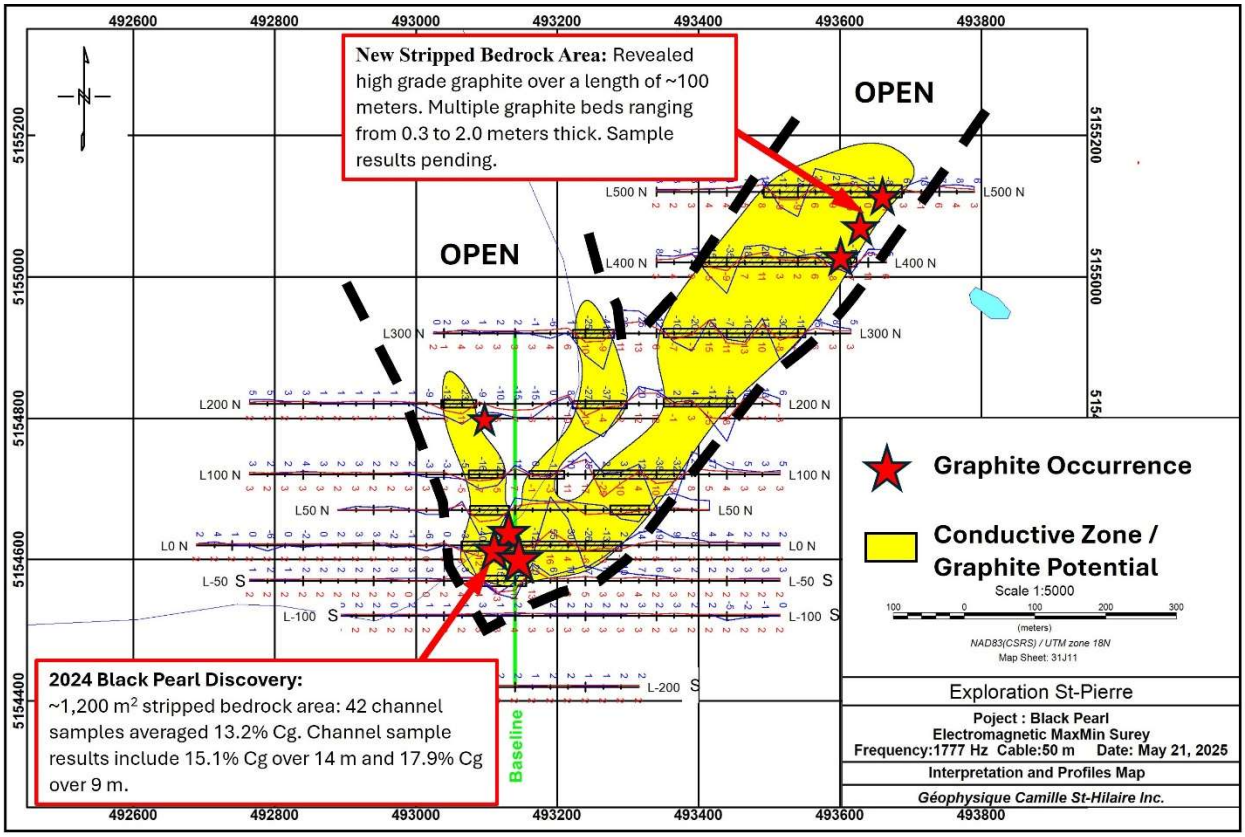


(St-Pierre 2024)

9.4.1.2 2025 Program

In the spring of 2025, Graphano retained SPE to conduct line cutting, ground EM surveys (Max-Min II and VLF-EM), prospecting and mechanical stripping of bedrock. Bedrock stripping uncovered graphitic zones with high visual graphite estimates, ranging from 0.5 to 2.0 m in thickness, over an approximate strike length of 100 m between L400N and L500N. Channel sampling results are pending for this mineralization. Figure 9-8 presents an updated interpretation for the Black Pearl trend with respect to the 2025 exploration program.

Figure 9-8: Black Pearl trend interpretation (2025)



(SPE 2025)

10.0 DRILLING

Between 2022 and 2024, Graphano completed various diamond drill programs that total 69 drill holes for 5,672.79 m on the LAB Property and 33 drill holes for 3,148.52 m on the Standard Property.

Two historical diamond drilling programs were completed on the LAB Property. Between November 11, 1981, and February 16, 1983, Orrwell completed 84 diamond drill holes for 5,959.19 m and between the 11th and 23rd of March, 2018, GEC completed 4 diamond drill holes for 385 m.

Data from both Graphano and historical drill programs are incorporated in a validated drill hole database that supports the current MRE. The QP has investigated and verified, where possible, the drilling, core logging, sampling, and QAQC procedures used during the Graphano drilling programs and is of the opinion that field staff used procedures meeting the CIM Mineral Exploration Best Practice Guidelines. The QP has investigated, where possible, the drilling, core logging, and sampling procedures used during historical drilling programs and is of the opinion that field staff used acceptable procedures at the respective times. Further discussion on the QAQC results from the 2022-2024 drilling programs appears in Section 11 of this Technical Report.

10.1 LAB

10.1.1 Orrwell: 1981 - 1983

Between November 11, 1981, and February 16, 1983, Orrwell completed 84 diamond drill holes for 5,959.19 m (Table 10-1, Figure 10-1, 10-2). Original core is not available for this program and historical data included in the Technical Report are based on descriptions and assay data listed in the drill logs and program report files. The drill program was completed on a local grid system that was translated to UTM NAD83 Zone 18N coordination from historical drill plans and field reconnaissance. BQ diameter core (36.5 mm) was recovered.

Table 10-1: Collar table for the 1981 – 1983 Orrwell drill program

Hole ID	Easting (m)	Northing (m)	Elevation (m)	Depth (m)	Year	Dip (°)	Azimuth (°)
81_01	458,326.69	5,133,786.36	233.12	66.75	1981	30	270
81_01A	458,292.37	5,133,790.36	241.25	34.14	1981	45	290
81_01B	458,292.37	5,133,790.36	241.25	45.72	1981	65	270
81_01C	458,294.38	5,133,827.44	243.91	81.69	1981	45	270
81_01D	458,294.38	5,133,827.44	243.91	43.28	1981	30	270
81_02	458,326.69	5,133,786.36	233.12	85.34	1981	45	270
81_02_01	458,805.20	5,134,108.28	251.91	49.38	1981	45	270
81_02_02	458,880.86	5,134,167.94	253.61	95.71	1981	45	270
81_03	458,326.69	5,133,786.36	233.12	109.73	1981	65	270
81_04	458,325.98	5,133,757.28	228.08	101.8	1981	45	270

Hole ID	Easting (m)	Northing (m)	Elevation (m)	Depth (m)	Year	Dip (°)	Azimuth (°)
81_05	458,325.98	5,133,757.28	228.08	114.3	1981	65	270
81_06	458,343.07	5,133,814.01	233.20	89.61	1981	45	270
81_07	458,348.50	5,133,845.78	237.01	71.02	1981	30	270
81_08	458,348.50	5,133,845.78	237.01	80.86	1981	45	270
81_09A	458,320.11	5,133,868.93	242.42	77.72	1981	45	290
81_09B	458,320.11	5,133,868.93	242.42	112.17	1981	37	290
81_09C	458,320.11	5,133,868.93	242.42	80.77	1981	65	290
81_10A	458,308.52	5,133,900.46	247.25	62.48	1981	45	290
81_10B	458,308.52	5,133,900.46	247.25	23.16	1981	30	290
81_10C	458,308.52	5,133,900.46	247.25	17.37	1981	65	290
81_11	458,332.37	5,133,926.67	243.01	25.3	1981	45	290
81_12A	458,353.24	5,133,869.08	238.28	92.05	1981	45	290
81_12B	458,353.24	5,133,869.08	238.28	55.78	1981	33	290
82_12C	458,353.24	5,133,869.08	238.28	110.64	1982	65	290
82_14	458,311.93	5,133,830.78	242.59	86.56	1982	45	290
82_15	458,294.91	5,133,777.46	239.37	29.26	1982	45	270
82_16	458,295.13	5,133,737.87	229.17	31.09	1982	45	270
82_17	458,293.64	5,133,757.13	234.13	29.26	1982	30	290
82_18	458,353.29	5,133,899.19	239.98	109.73	1982	45	290
82_19	458,293.64	5,133,757.13	234.13	45.72	1982	45	290
82_20	458,353.29	5,133,899.19	239.98	137.16	1982	65	290
82_21	458,351.17	5,133,929.58	241.40	108.51	1982	45	290
82_22	458,386.82	5,133,917.42	237.42	99.36	1982	45	290
82_23	458,409.05	5,133,951.33	239.19	84.73	1982	45	290
82_24	458,418.19	5,133,908.75	237.19	111.25	1982	45	290
82_25	458,290.12	5,133,878.44	247.82	42.67	1982	45	0
82_26	458,358.84	5,133,878.74	237.96	51.82	1982	30	270
82_27	458,287.31	5,133,896.07	249.73	69.8	1982	45	270
82_28	458,418.77	5,133,953.75	239.10	91.44	1982	45	270
82_29	458,297.86	5,133,814.40	242.60	42.67	1982	45	270
82_30	458,270.84	5,133,913.35	251.17	74.98	1982	65	270
82_31	458,291.23	5,133,858.27	245.70	53.34	1982	45	270
82_32	458,267.04	5,133,862.61	244.92	32	1982	45	270
82_33	458,289.93	5,133,863.30	246.46	59.74	1982	65	270
82_34	458,323.30	5,133,865.83	241.82	78.03	1982	65	270
82_35	458,347.50	5,133,864.04	238.83	105.16	1982	65	270
82_36	458,339.43	5,133,826.39	235.93	98.45	1982	65	270
82_37	458,249.17	5,133,912.92	248.65	62.79	1982	65	270

Hole ID	Easting (m)	Northing (m)	Elevation (m)	Depth (m)	Year	Dip (°)	Azimuth (°)
82_38	458,248.28	5,133,912.92	248.54	60.66	1982	45	270
82_39	458,198.16	5,133,973.53	253.45	24.69	1982	30	270
82_41	458,140.52	5,133,911.25	242.60	34.44	1982	30	270
82_42	458,295.71	5,133,914.11	251.32	76.2	1982	65	270
82_43	458,243.51	5,133,943.78	253.20	83.21	1982	65	270
82_44	458,304.92	5,133,944.35	255.15	117.65	1982	65	270
82_45	458,290.00	5,133,944.17	256.21	109.12	1982	90	0
82_46	458,245.90	5,133,972.53	257.84	118.57	1982	90	0
82_47	458,277.00	5,133,973.17	259.98	141.73	1982	90	0
82_48	458,214.67	5,133,972.27	255.33	106.68	1982	90	0
82_49	458,169.30	5,133,944.93	247.07	53.64	1982	90	0
82_50	458,169.70	5,133,971.66	250.51	81.08	1982	90	0
82_55	458,166.83	5,133,914.69	243.72	23.47	1982	90	0
82_56	458,135.28	5,133,943.59	246.28	33.83	1982	90	0
82_57	458,131.32	5,133,973.23	249.95	81.99	1982	90	0
82_58	458,102.32	5,133,944.07	245.76	45.72	1982	90	0
82_60	458,290.00	5,133,944.17	256.21	60.96	1982	55	0
82_61	458,232.87	5,133,896.40	245.49	38.1	1982	90	0
82_62	458,135.72	5,133,928.47	244.31	91.44	1982	90	0
82_63	458,116.35	5,133,955.66	244.75	30.48	1982	45	180
82_64	458,072.47	5,133,974.16	250.97	45.72	1982	45	180
82_65	458,115.29	5,134,003.12	250.51	45.72	1982	45	180
82_66	458,071.14	5,134,030.81	253.73	76.2	1982	45	180
82_67	458,129.49	5,133,972.34	249.82	45.72	1982	45	270
82_68	458,126.59	5,134,008.21	251.04	32.61	1982	45	180
82_69	458,126.88	5,134,008.80	251.17	30.78	1982	60	180
82_70	458,182.50	5,133,927.49	245.13	30.48	1982	45	185
82_71	458,196.88	5,133,848.07	238.56	41.45	1982	45	180
82_72	458,221.64	5,133,901.56	245.62	30.48	1982	45	211
82_73	458,255.51	5,133,886.88	246.13	53.64	1982	90	0
82_74	458,277.56	5,133,899.21	249.95	67.36	1983	90	0
82_75	458,998.71	5,134,708.24	256.11	152.4	1982	45	141
83_76	458,937.00	5,134,569.80	264.24	76.2	1983	45	180
83_77	458,938.02	5,134,662.94	256.02	178.61	1983	45	180
83_78	458,750.32	5,134,612.27	254.76	91.44	1983	45	180
83_79	458,873.32	5,134,641.29	253.33	84.43	1983	45	180

*UTM NAD83 Zone 18N coordination, masl elevation

Figure 10-1: Collar location map of 1981-1983 Orrwell drilling program – Pit Zone

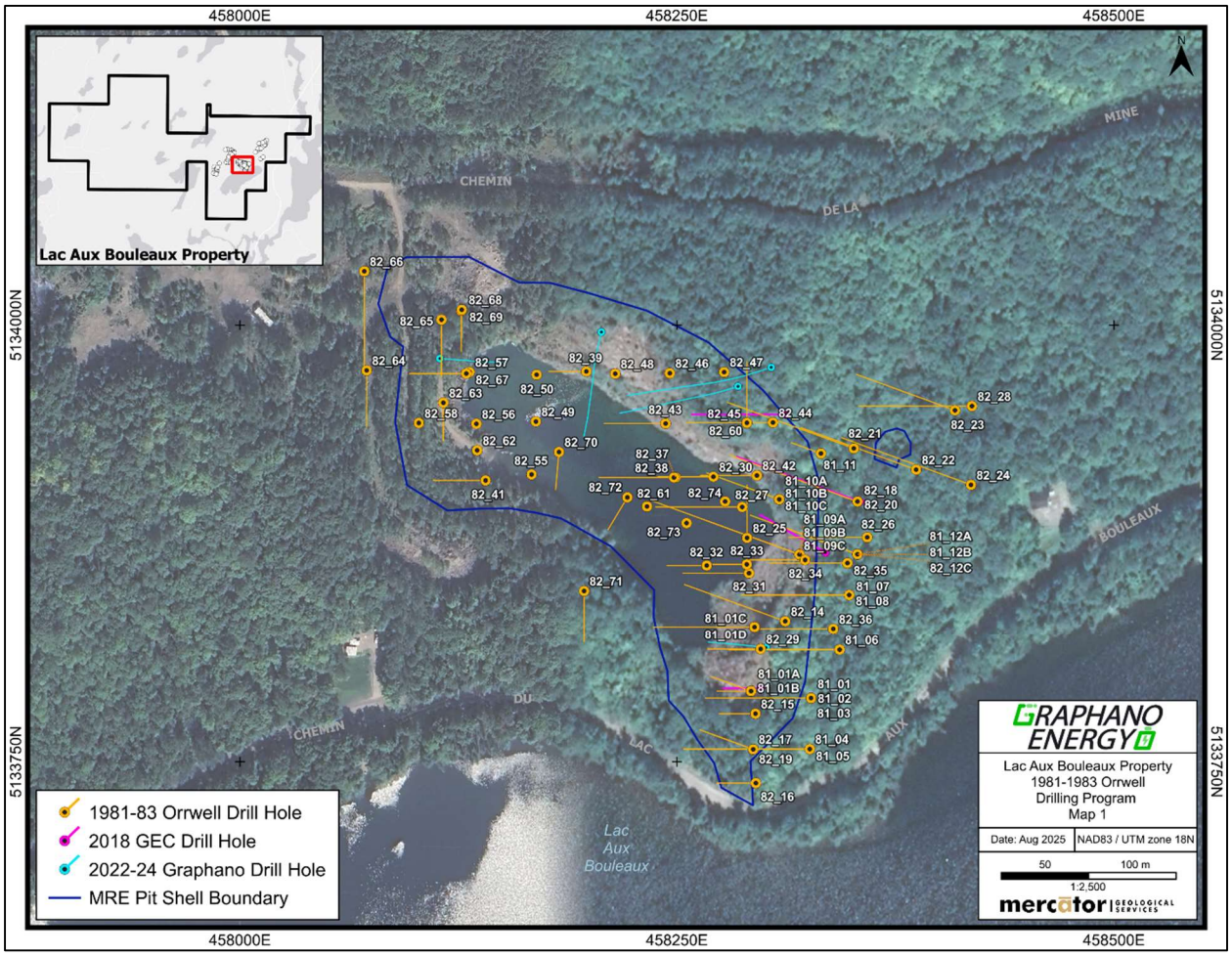
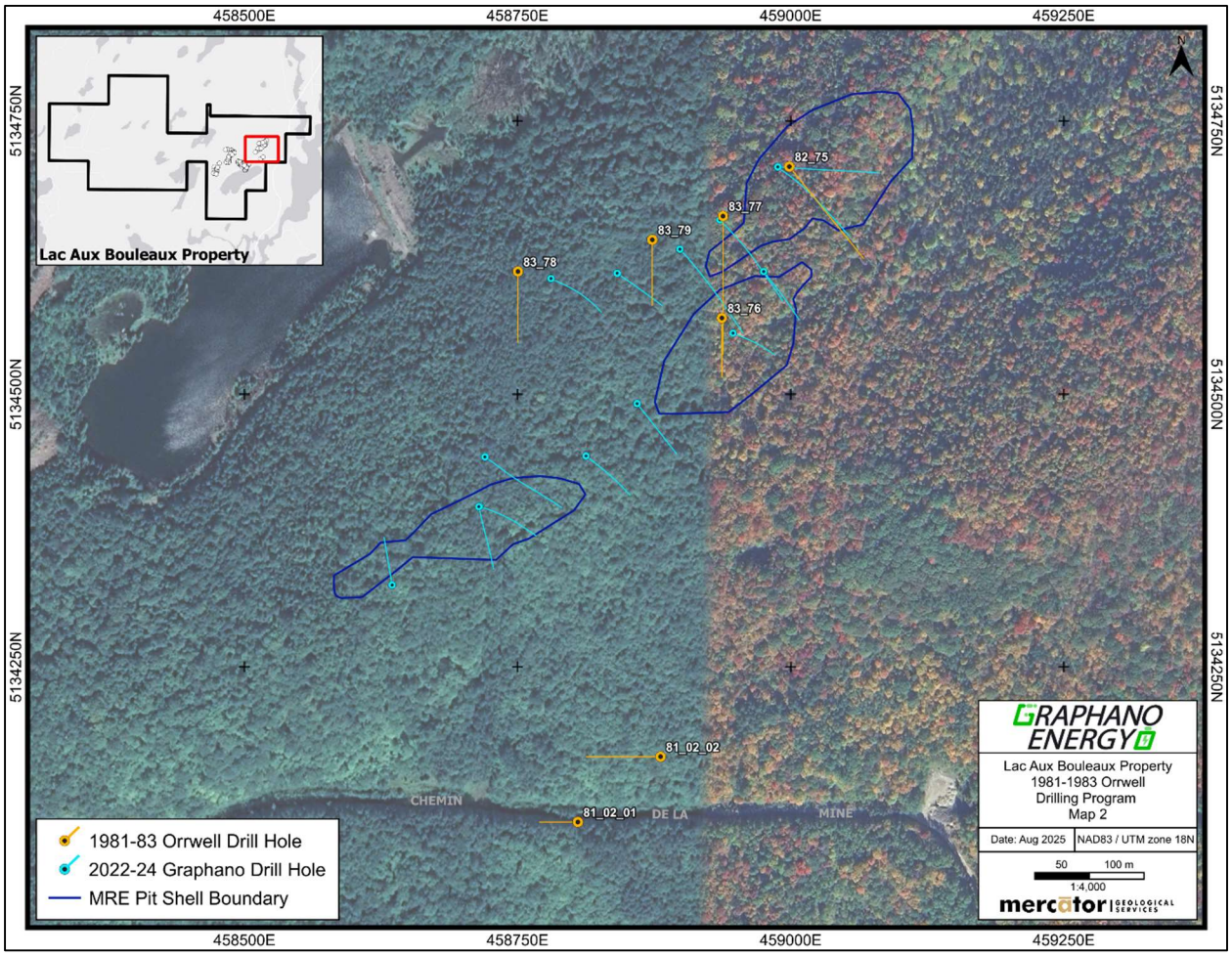


Figure 10-2: Collar location map of 1981-1983 Orrwell drilling program – Zone 1



The Orrwell drill program defined graphite mineralization hosted within a recrystalized limestone unit that is part of a sequence dominated by paragenesis and quartzite. This drill program was focused on an area that now is referred to as the Pit Zone and supported a historical estimate and historical mining study. Multiple zones of graphite mineralization were defined that are likely related to both folding and faulting of the main horizon. Drill holes 81_02_01 and 81_02_02 were completed northeast of the Pit Zone as exploratory drill holes. Drill holes 82_75 through 82_79 were completed on what now is referred to as Zone 1. Significant results from the program are outlined in Table 10-2 below. Results reported below are values over core length. True widths are estimated to be between 75% and 85% of the downhole length. No issues with core recovery were noted.

Table 10-2: Significant intercepts for the 1981-1983 Orrwell drilling program

Hole Id	From (m)	To (m)	Length (m)	Cg (%)
81_01	46.33	52.12	5.79	5.81
81_01A	23.75	23.97	0.22	6.45
81_01A	23.97	29.57	5.60	5.72
81_01B	24.66	29.57	4.91	13.60
81_01B	34.44	36.88	2.44	9.81
81_01C	34.75	39.93	5.18	10.30
81_01D	30.05	37.19	7.14	9.25
81_02	58.90	72.24	13.34	0.28
81_02_01	No significant mineralization			
81_02_02	No significant mineralization			
81_03	No significant mineralization			
81_04	No significant mineralization			
81_05	No significant mineralization			
81_06	71.48	78.33	6.85	5.84
81_07	60.50	65.84	5.34	2.99
81_08	73.15	77.22	4.07	3.46
81_09A	60.20	63.25	3.05	9.35
81_09B	59.13	66.45	7.32	7.00
81_09C	64.01	70.41	6.40	9.02
81_09C	70.41	80.77	10.36	0.05
81_10A	No significant mineralization			
81_10B	No significant mineralization			
81_10C	8.50	11.50	3.00	1.17
81_11	No significant mineralization			
81_12A	41.76	44.78	3.02	6.17
81_12A	81.99	88.09	6.10	9.03
81_12B	31.85	36.38	4.53	2.10
82_12C	56.50	59.50	3.00	6.06
82_12C	100.28	104.42	4.14	4.68
82_14	57.45	59.97	2.52	9.06
82_15	21.46	27.32	5.86	6.33
82_16	8.23	11.28	3.05	2.95
82_17	20.63	23.30	2.67	4.97
82_18	82.30	94.79	12.49	7.88
82_19	No significant mineralization			
82_20	24.63	27.74	3.11	9.69
82_20	77.50	80.50	3.00	5.96

Hole Id	From (m)	To (m)	Length (m)	Cg (%)
82_20	95.10	99.06	3.96	14.15
82_20	110.64	114.30	3.66	8.86
82_21	No significant mineralization			
82_22	11.50	14.50	3.00	3.81
82_22	21.50	24.50	3.00	3.31
82_23	65.50	68.50	3.00	2.28
82_24	69.19	73.46	4.27	4.84
82_24	105.92	109.12	3.20	8.89
82_25	21.79	38.29	16.50	11.16
82_26	No significant mineralization			
82_27	57.15	59.89	2.74	5.70
82_28	No significant mineralization			
82_29	36.27	40.24	3.97	12.30
82_30	56.69	60.96	4.27	4.91
82_31	35.27	38.16	2.89	13.03
82_32	18.71	29.21	10.50	9.91
82_33	9.00	12.00	3.00	7.38
82_33	33.83	37.25	3.42	12.93
82_34	4.00	7.00	3.00	5.06
82_34	67.36	72.12	4.76	3.27
82_35	97.23	103.17	5.94	7.73
82_36	76.96	79.48	2.52	6.46
82_37	40.69	51.21	10.52	9.27
82_38	46.63	60.05	13.42	11.02
82_39	19.00	22.00	3.00	5.83
82_41	4.27	28.35	24.08	7.56
82_42	67.97	71.32	3.35	4.40
82_43	68.77	78.03	9.26	9.59
82_44	91.35	107.66	16.31	6.97
82_45	98.45	103.94	5.49	8.46
82_46	7.62	10.67	3.05	6.30
82_46	99.35	113.69	14.34	8.84
82_47	127.70	134.72	7.02	5.94
82_48	96.83	101.32	4.49	6.44
82_49	39.01	49.07	10.06	9.97
82_50	70.41	77.48	7.07	8.21
82_55	3.66	14.78	11.12	11.15
82_56	25.21	29.57	4.36	6.65

Hole Id	From (m)	To (m)	Length (m)	Cg (%)
82_57	No significant mineralization			
82_58	No significant mineralization			
82_60	No significant mineralization			
82_61	30.18	36.27	6.09	5.28
82_62	10.15	17.07	6.92	4.05
82_63	13.41	19.14	5.73	6.41
82_64	No significant mineralization			
82_65	6.46	12.74	6.28	5.31
82_66	No significant mineralization			
82_67	No significant mineralization			
82_68	12.34	16.31	3.97	6.15
82_69	12.71	16.95	4.24	5.08
82_70	16.76	26.52	9.76	13.76
82_72	20.77	25.30	4.53	8.14
82_72	25.30	30.48	5.18	0.39
82_73	No significant mineralization			
82_74	41.00	52.58	11.58	9.55
82_75	31.09	39.32	8.23	7.19
83_76	49.53	56.99	7.46	5.16
83_77	30.08	34.14	4.06	5.39
83_77	109.00	112.00	3.00	5.53
83_77	112.00	178.61	66.61	0.00
83_78	No significant mineralization			
83_79	38.50	41.50	3.00	3.22

10.1.2 GEC: 2018

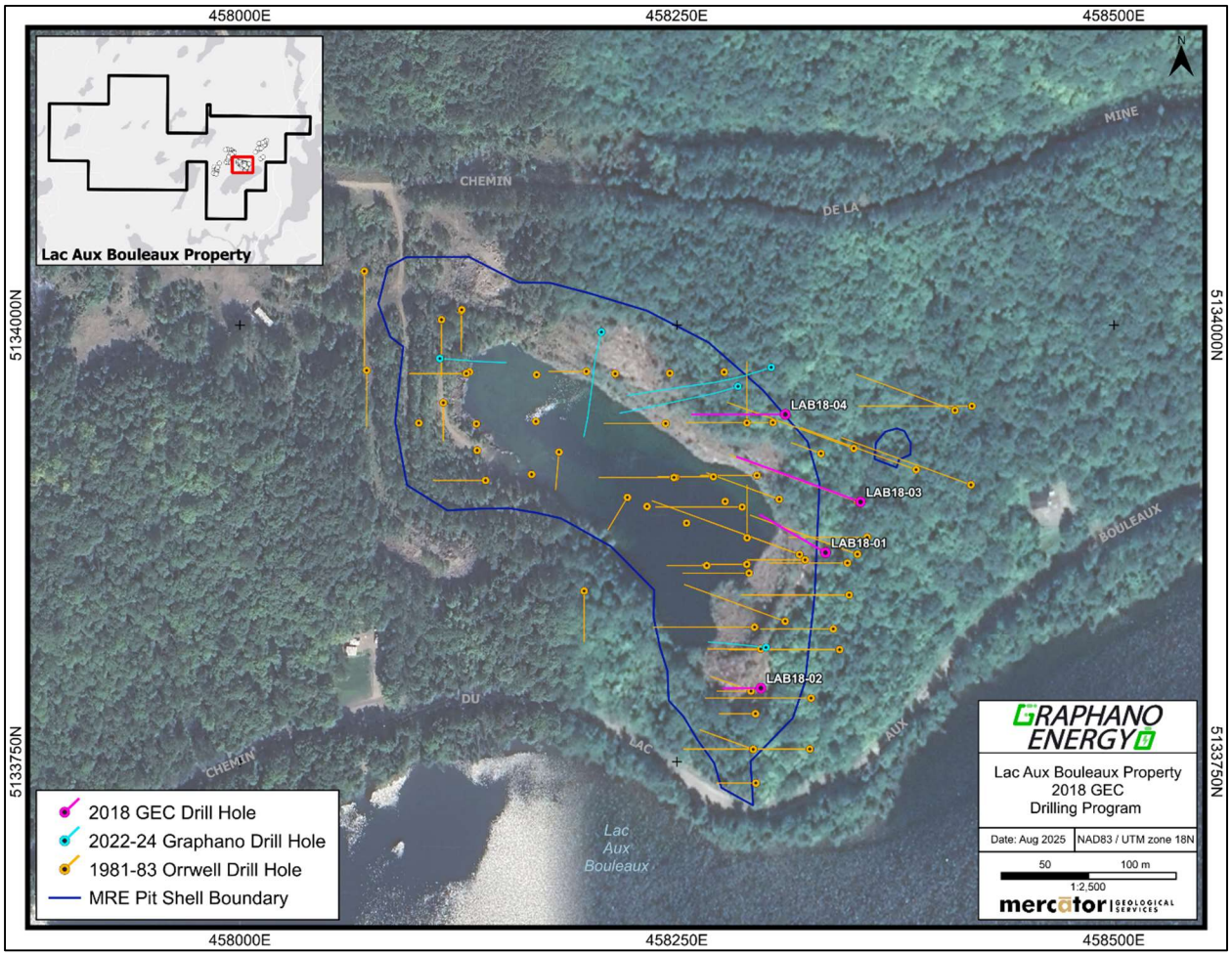
Between March 11th and 23rd, 2018, GEC completed 4 NQ size (47.6 mm) diamond drill holes for 385 m (Table 10-3, Figure 10-3) at the Pit Zone. Drilling was contracted to George Downing Estate Drilling Ltd. of Abitibi, Québec.

Table 10-3: Collar table for the 2018 GEC drill program

Hole ID	Easting (m)	Northing (m)	Elevation (m)	Depth (m)	Year	Dip (°)	Azimuth (°)
LAB18-01	458,335	5,133,870	243	102	2018	65	300
LAB18-02	458,298	5,133,792	240	51	2018	65	270
LAB18-03	458,355	5,133,899	237	106	2018	45	290
LAB18-04	458,312	5,133,949	258	126	2018	65	270

*UTM NAD83 Zone 18N coordination, masl elevation

Figure 10-3: Collar location map of 2018 GEC drilling program



Graphite mineralization, host unit, and associated lithologies matched those from the Orrwell drill program and multiple zones of graphite mineralization were intersected. Highlight results are reported below as values over core length (Table 10-4). True widths are estimated to be between 75% and 85% of the downhole length. No issues with core recovery were noted.

Table 10-4: Significant intercepts for the 2018 GEC drilling program

Hole Id	From (m)	To (m)	Length (m)	Cg (%)
LAB18-01	23.00	26.00	3.00	6.05
LAB18-01	80.60	89.55	8.95	5.72
LAB18-02	28.29	34.30	6.01	8.43
LAB18-02	39.42	43.50	4.08	6.93
LAB18-03	46.40	52.02	5.62	2.21
LAB18-03	80.13	87.21	7.08	8.86
LAB18-04	97.57	107.20	9.63	6.95

10.1.3 Graphano: 2022 to 2024

10.1.3.1 Overview

Between February 2022 and January 2024 Graphano completed multiple phases of diamond drilling at the LAB Property for a total of 69 drill holes and 5,672.79 m (Table 10-5). Drilling contractor Forage Hébert Inc. of Amos, Québec, was the retained for all phases of the drilling program and NQ diameter (47.6 mm) core was recovered.

SPE was engaged to manage the drill program. Drill collar locations were surveyed with Trimble DGPS after completion. Casing has been left in most drill holes and flagged. Downhole surveys were completed by the drilling contractor using: a Reflex-EZ Shot tool for drill holes LB22-01 through LB22-15 and LB22-31 through LB22-55, a DeviShot instrument for drill holes LB22-016 through LB22-30, and an Ez-Track instrument for drill holes LB22-56 though LB-24-68. Downhole surveys were taken at regular intervals, often at 3 m increments.

The first phase of drilling focused on Zone 4 and Zone 1 graphite mineralization that was identified by earlier Graphano trenching programs. Drill holes LB22-01 through LB22-15 were drilled on Zone 4 (Figure 10-4) and drill holes LB22-16 through LB22-29 were drilled on Zone 1 (Figure 10-5). The final drill hole of this phase, LB22-30, was completed on the edge of the Pit Zone (Figure 10-6).

The next phase of drilling focused on defining Zone 3 graphite mineralization that was again identified by earlier Graphano trenching programs. Drill holes LB22-31 through LB22-55 (Figure 10-7) were completed on the target except for LB22-42 and LB22-47, which were completed on Zone 4 (Figure 10-4) and Zone 8 (Figure 10-7) respectively.

The final phase of drilling completed at LAB consisted of 4 infill, exploration, and data verification drill holes at the Pit Zone (Figure 10-6), LB-23-56 though LB-23-59, 8 infill drill holes at Zone 3 (Figure 10-7), LB-23-60 though LB-24-66 and LB-24-68, and 1 drill hole at Zone 8 (Figure 10-7), LB-24-67.

Table 10-5: Collar table for the 2022 to 2024 Graphano LAB drill programs

Hole Id	Easting (m)	Northing (m)	Elevation (m)	Depth (m)	Year	Zone	Dip (°)	Azimuth (°)
LB22-01	457,322.72	5,133,718.29	278.97	150.00	2022	Zone 4	41.55	112.50
LB22-02	457,279.23	5,133,745.88	280.54	150.00	2022	Zone 4	43.11	299.46
LB22-03	457,279.96	5,133,682.71	279.79	150.00	2022	Zone 4	42.00	111.88
LB22-04	457,331.78	5,133,819.82	279.10	31.00	2022	Zone 4	41.58	120.19
LB22-05	457,332.26	5,133,823.29	279.02	151.80	2022	Zone 4	42.35	110.38
LB22-06	457,331.72	5,133,821.69	279.06	135.00	2022	Zone 4	64.54	112.90
LB22-07	457,274.55	5,133,641.10	279.85	159.00	2022	Zone 4	42.22	292.69
LB22-08	457,301.30	5,133,849.14	284.60	174.00	2022	Zone 4	41.12	317.17
LB22-09	457,367.52	5,133,703.02	274.65	48.00	2022	Zone 4	50.60	299.82
LB22-10	457,382.96	5,133,690.38	273.37	47.80	2022	Zone 4	46.67	294.05
LB22-11	457,355.56	5,133,646.24	272.72	42.00	2022	Zone 4	49.88	302.24
LB22-12	457,360.22	5,133,617.05	270.89	45.00	2022	Zone 4	44.22	293.50
LB22-13	457,376.88	5,133,799.38	276.38	48.00	2022	Zone 4	50.10	294.85
LB22-13B	457,376.88	5,133,799.38	276.38	12.44	2022	Zone 4	50.10	294.85
LB22-14	457,382.61	5,133,784.07	275.65	48.00	2022	Zone 4	47.61	302.95
LB22-15	457,401.73	5,133,832.37	275.29	51.00	2022	Zone 4	46.08	300.23
LB22-16	458,715.48	5,134,397.60	276.40	78.00	2022	Zone 1	42.42	110.63
LB22-17	458,714.55	5,134,397.29	276.42	77.30	2022	Zone 1	40.23	168.26
LB22-18	458,720.09	5,134,442.75	270.90	120.00	2022	Zone 1	44.32	122.87
LB22-19	458,780.61	5,134,605.88	258.51	77.00	2022	Zone 1	44.01	115.27
LB22-20	458,841.18	5,134,610.74	256.03	69.00	2022	Zone 1	43.22	125.04
LB22-21	458,898.58	5,134,632.71	256.52	131.00	2022	Zone 1	43.64	137.60
LB22-22	458,935.14	5,134,659.59	256.71	130.00	2022	Zone 1	44.88	136.21
LB22-23	458,987.80	5,134,707.93	255.34	126.00	2022	Zone 1	44.80	125.91
LB22-24	458,988.22	5,134,707.93	255.38	129.00	2022	Zone 1	44.27	93.97
LB22-25	458,975.24	5,134,612.28	258.43	74.25	2022	Zone 1	43.22	141.20
LB22-26	458,947.19	5,134,555.92	263.37	57.00	2022	Zone 1	41.47	112.20
LB22-27	458,859.42	5,134,491.53	274.85	75.00	2022	Zone 1	38.74	141.79
LB22-28	458,812.64	5,134,443.66	280.09	75.00	2022	Zone 1	44.27	127.76
LB22-29	458,635.20	5,134,325.66	274.79	57.00	2022	Zone 1	39.26	-9.54
LB22-30	458,303.90	5,133,975.88	259.36	141.00	2022	Pit	54.94	252.07
LB22-31	457,744.15	5,134,052.09	261.14	54.00	2022	Zone 3	46.80	134.90
LB22-32	457,730.21	5,134,067.14	260.36	66.00	2022	Zone 3	48.00	132.60
LB22-33	457,764.92	5,134,068.71	259.43	72.00	2022	Zone 3	44.40	136.40
LB22-34	457,746.16	5,134,086.39	260.91	81.00	2022	Zone 3	43.70	132.00
LB22-35	457,715.52	5,134,020.48	259.77	72.00	2022	Zone 3	45.00	133.90

Hole Id	Easting (m)	Northing (m)	Elevation (m)	Depth (m)	Year	Zone	Dip (º)	Azimuth (º)
LB22-36	457,703.84	5,134,031.29	258.84	60.00	2022	Zone 3	43.30	138.10
LB22-37	457,703.64	5,134,028.64	258.85	72.20	2022	Zone 3	47.00	312.50
LB22-38	457,707.11	5,134,026.45	259.04	63.00	2022	Zone 3	46.30	198.40
LB22-39	457,761.95	5,134,001.73	258.26	87.00	2022	Zone 3	42.90	307.20
LB22-40	457,771.87	5,134,024.22	256.81	45.00	2022	Zone 3	43.50	320.40
LB22-41	457,766.96	5,133,998.64	257.56	54.00	2022	Zone 3	70.80	294.70
LB22-42	457,460.66	5,133,968.30	274.14	102.00	2022	Zone 4	43.60	302.50
LB22-43	457,810.88	5,134,198.09	258.45	75.00	2022	Zone 3	43.00	140.60
LB22-44	457,833.98	5,134,226.02	260.20	69.00	2022	Zone 3	44.10	135.70
LB22-45	457,787.36	5,134,204.58	258.58	99.00	2022	Zone 3	47.80	133.20
LB22-46	457,809.50	5,134,244.33	264.30	102.00	2022	Zone 3	50.00	137.90
LB22-47	457,854.44	5,134,391.39	265.97	51.00	2022	Zone 8	43.60	318.60
LB22-48	457,904.16	5,134,350.19	267.44	84.00	2022	Zone 3	45.60	314.20
LB22-49	457,862.64	5,134,313.01	268.83	51.00	2022	Zone 3	43.80	302.90
LB22-50	457,938.86	5,134,301.93	263.63	90.00	2022	Zone 3	43.70	314.90
LB22-51	457,935.29	5,134,337.84	266.81	72.00	2022	Zone 3	43.50	350.90
LB22-52	457,894.99	5,134,276.68	263.49	75.00	2022	Zone 3	45.10	312.90
LB22-53	457,940.84	5,134,307.46	264.26	75.00	2022	Zone 3	84.40	344.40
LB22-54	457,717.93	5,134,420.80	274.68	57.00	2022	Zone 8	54.40	307.70
LB22-55	457,828.17	5,134,289.23	269.48	51.00	2022	Zone 3	45.10	314.90
LB-23-56	458,206.80	5,133,996.05	257.11	96.00	2023	Pit	50.88	193.35
LB-23-57	458,114.38	5,133,980.92	248.00	75.00	2023	Pit	59.44	94.36
LB-23-58	458,284.95	5,133,965.01	258.82	114.00	2023	Pit	54.49	252.80
LB-23-59	458,300.92	5,133,815.25	241.84	75.00	2023	Pit	64.06	275.99
LB-23-60	457,682.19	5,133,999.79	260.02	57.00	2023	Zone 3	59.51	233.65
LB-23-61	457,729.31	5,134,074.02	260.54	57.00	2023	Zone 3	54.59	311.10
LB-23-62	457,760.03	5,134,119.04	260.46	86.00	2023	Zone 3	47.08	135.96
LB-24-63	457,753.09	5,134,124.88	260.86	51.00	2024	Zone 3	45.40	311.45
LB-24-64	457,765.62	5,134,175.02	258.36	105.00	2024	Zone 3	44.67	144.45
LB-24-65	457,829.90	5,134,283.87	269.19	120.00	2024	Zone 3	60.42	135.26
LB-24-66	457,945.10	5,134,304.75	263.42	81.00	2024	Zone 3	54.99	142.25
LB-24-67	457,661.15	5,134,406.30	269.40	57.00	2024	Zone 8	44.93	320.19
LB-24-68	457,874.31	5,134,246.67	259.49	60.00	2024	Zone 3	44.45	135.97

* UTMNAD83 Zone 18N coordination, masl elevation

Figure 10-4: Collar location map of Graphano drilling at Zone 4

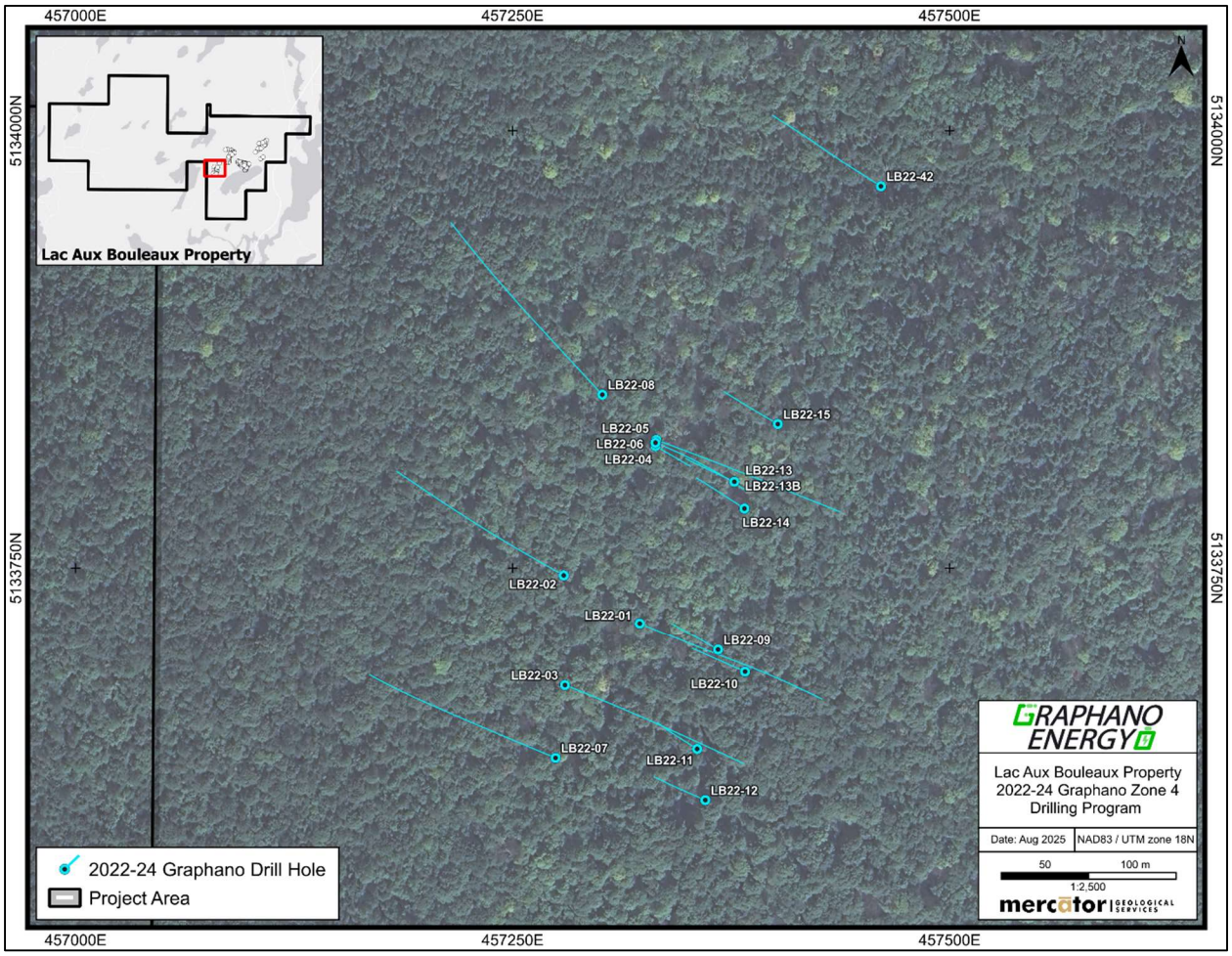


Figure 10-5: Collar location map of Graphano drilling at Zone 1

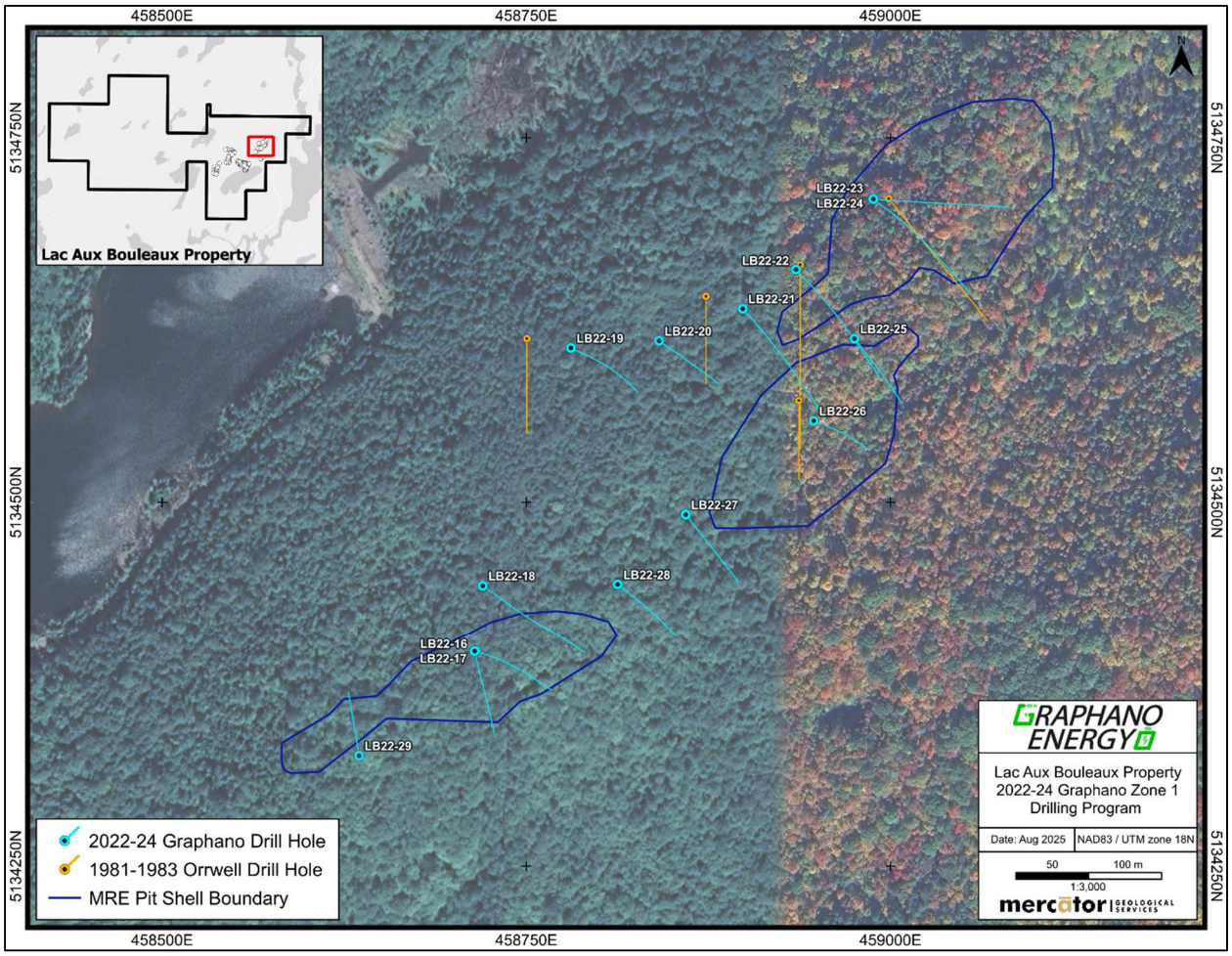


Figure 10-6: Collar location map of Graphano drilling at Pit Zone

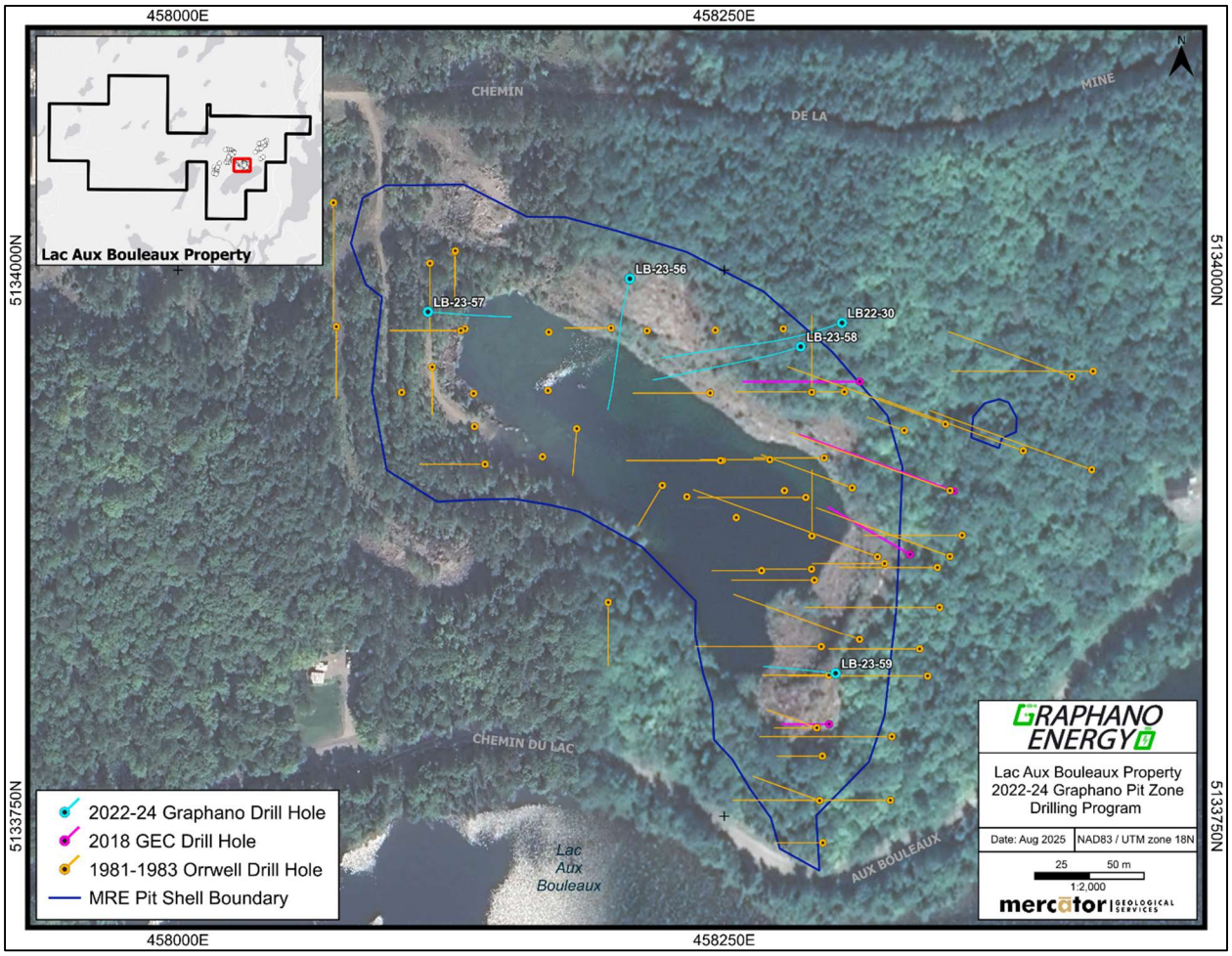
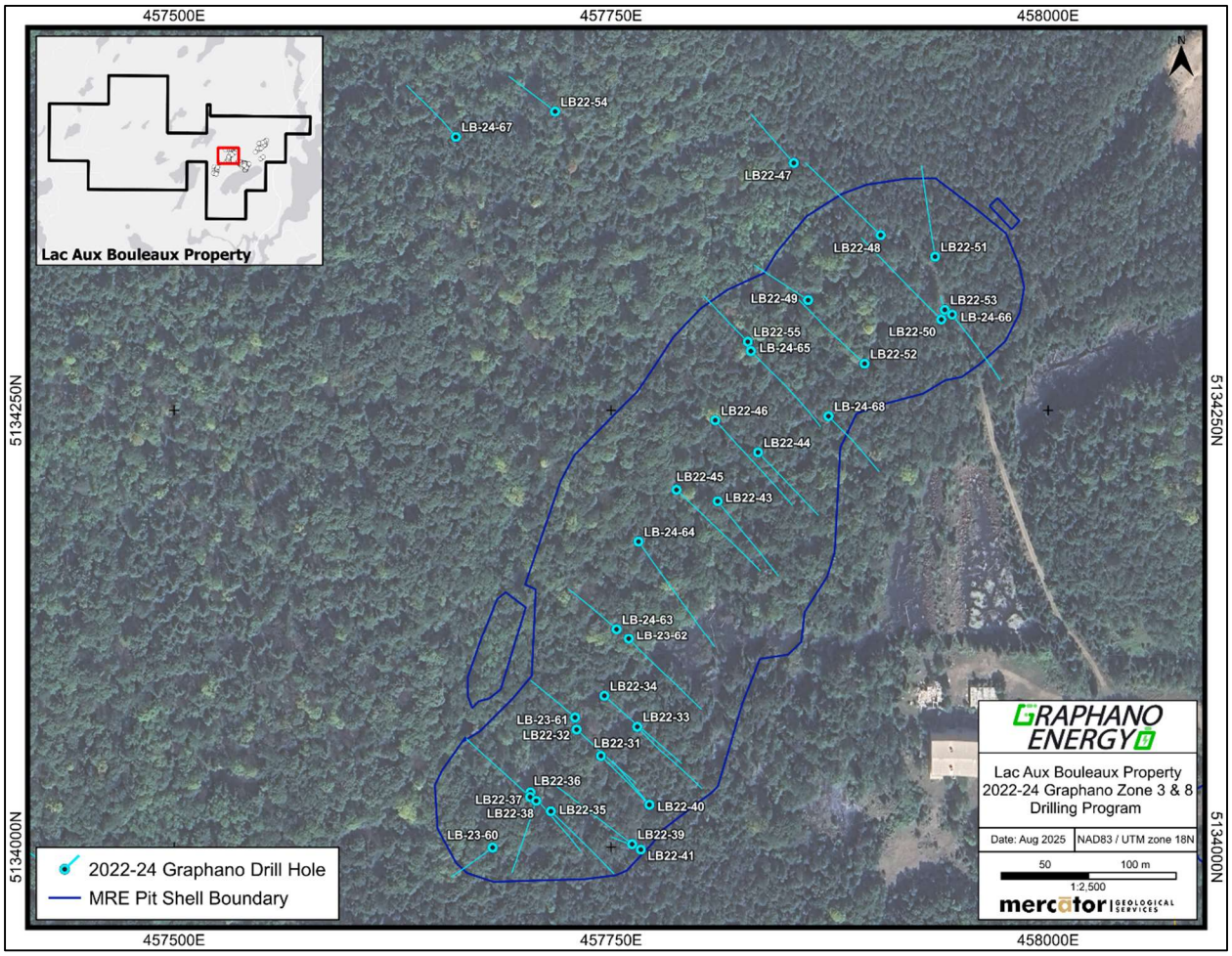


Figure 10-7: Collar location map of Graphano drilling at Zone 3 and Zone 8



Most of the holes intercepted varying amounts of graphite mineralization hosted within recrystalized limestone as part of a stratigraphic sequence of predominantly paragneiss and quartzite, which can also host anomalous to low grade graphite mineralization. Half-core drill core samples were sampled, stored, and shipped using industry best practices and were delivered to Actlabs for sample preparation and analyses using Actlabs' Code 4F-C Graphitic. Actlabs is an independent commercial and ISO Certified Laboratory. Core sample programs also included quality control samples as part of QAQC procedures. A total of 1,654 core samples, exclusive of quality control samples, are recorded for the Graphano LAB drill programs in the Mineral Project drill hole database.

10.1.3.2 Phase 1 Results

The intent of the Phase 1 drill program was to evaluate the characteristics and magnitude of mineralization in Zone 4 and Zone 1 that were initially explored through ground geophysical surveys, trenching and sampling.

Most drill holes completed on the Zone 4 target intersected near surface, flat lying mineralized horizons ranging from 2.0 m to 7.0 m in thickness (core length) over 75 m wide and 200 m long zone and remains open to the east and north as indicated by the 2015 airborne TDEM survey. Due to complex structural folding observed at Zone 4, correlation between the geophysical conductive trend, channel sample results, and drill hole intercepts are difficult to resolve.

The drill holes completed on Zone 1 intersected multiple zones of graphite mineralization ranging from 1.0 to 9.0 m in thickness (core length) within a 75 m wide sequence and 600 m strike length. The mineralized zone has been tested from surface to maximum vertical depth of approximately 75 m and remains open in all directions.

Drill hole LB22-30, totaling 141.0 m, intersected 6.34% Cg over 11.0 m (core length) at the edge of the Pit Zone and provided both verification and extension to the mineralization defined by Orrwell.

Summary results from Phase 1 drilling are highlighted in Table 10-6 as values over core length. True widths are currently unknown at Zone 4. Ture widths are estimated to be between 75% and 85% of the downhole length at Zone 1 and the Pit Zone. No issues with core recovery were noted.

Table 10-6: Significant intercepts for the Graphano LAB Phase 1 drilling program

Hole Id	Zone	From (m)	To (m)	Length (m)	Cg (%)
LB22-01	Zone 4	11.00	14.00	3.00	2.46
LB22-01	Zone 4	99.00	101.00	2.00	2.01
LB22-02	Zone 4	42.00	43.00	1.00	3.91
LB22-03	Zone 4	Graphitic intervals intersected, no significant mineralization			
LB22-04	Zone 4	Abandoned			
LB22-05	Zone 4	Graphitic intervals intersected, no significant mineralization			
LB22-06	Zone 4	Graphitic intervals intersected, no significant mineralization			
LB22-07	Zone 4	Not completed			
LB22-08	Zone 4	Graphitic intervals intersected, no significant mineralization			
LB22-09	Zone 4	7.00	11.00	4.00	6.61
LB22-10	Zone 4	10.00	13.00	3.00	4.13
LB22-11	Zone 4	Graphitic intervals intersected, no significant mineralization			
LB22-12	Zone 4	Not completed			
LB22-13	Zone 4	28.20	30.00	2.30	7.20
LB22-14	Zone 4	26.00	28.00	2.00	4.69
LB22-15	Zone 4	13.90	14.70	0.80	8.78
LB22-15	Zone 4	37.65	40.25	2.60	8.83
LB22-16	Zone1	25.79	29.50	3.71	7.20
LB22-17	Zone1	29.00	33.00	4.00	8.15

Hole Id	Zone	From (m)	To (m)	Length (m)	Cg (%)
LB22-18	Zone1	65.00	71.00	6.00	6.00
LB22-19	Zone1	27.48	28.50	1.02	5.66
LB22-20	Zone1	25.00	26.36	1.36	6.98
LB22-21	Zone1	95.20	105.00	9.80	4.58
LB22-22	Zone1	26.00	27.00	1.00	4.40
LB22-22	Zone1	90.00	91.80	1.80	6.76
LB22-22	Zone1	102.20	108.00	5.80	7.04
LB22-23	Zone1	14.00	17.00	3.00	4.17
LB22-23	Zone1	36.00	41.00	5.00	5.82
LB22-23	Zone1	86.00	88.00	2.00	3.97
LB22-24	Zone1	22.00	23.00	1.00	3.40
LB22-24	Zone1	43.50	52.50	9.00	6.12
LB22-24	Zone1	43.50	47.70	4.20	8.41
LB22-24	Zone1	49.75	51.50	1.75	8.32
LB22-24	Zone1	84.00	86.00	2.00	4.81
LB22-24	Zone1	90.00	96.00	6.00	6.09
LB22-24	Zone1	91.00	95.00	4.00	7.71
LB22-25	Zone1	30.00	31.00	1.00	6.29
LB22-25	Zone1	57.75	58.40	0.65	7.73
LB22-25	Zone1	66.00	67.00	1.00	4.52
LB22-26	Zone1	23.90	24.70	0.80	8.82
LB22-26	Zone1	23.90	33.00	9.10	5.29
LB22-26	Zone1	27.85	33.00	5.15	7.51
LB22-27	Zone1	18.00	23.00	5.00	3.03
LB22-28	Zone1	18.00	18.50	0.50	3.78
LB22-29	Zone1	38.00	39.00	1.00	13.20
LB22-30	Pit	106.00	117.00	11.00	6.34

10.1.3.3 Phase 2 Results

Zone 3 was initially identified from the 2015 TDEM survey and was further explored through ground geophysical surveying, trenching, and channeling sampling. The Phase 2 drill program was targeted to further delineate this zone of mineralization.

Most drill holes completed on the Zone 3 target intersected near surface mineralized horizons ranging from 1.0 m to 14 m in thickness (core length) over a 500 m strike length. The graphite mineralization observed during drilling is hosted within a sequence of marble, paragneiss and quartzites. The drilling to date suggests that the higher-grade graphite horizons are locally folded and structurally thickened.

Zone 8 drill hole LB22-54 intersected 4.12% Cg over 6.0 m (core length) at 26 m drilled depth. The geophysical anomaly associated with Zone 8 mineralization demonstrates an extensive trend.

Zone 4 drill hole LB22-42 intersected 4.30% over 2.0 m (core length) at a 61 m drilled depth and 7.18% over 0.5 m (core length) at 88.5 m drilled depth.

Summary results from Phase 2 drilling are highlighted in Table 10-7 as values over core length. True widths are currently unknown at Zone 8. True widths are estimated to be between 65% and 95% of the downhole length at Zone 3. No issues with core recovery were noted.

Table 10-7: Significant intercepts for the Graphano LAB Phase 2 drilling program

Hole Id	Zone	From (m)	To (m)	Length (m)	Cg (%)
LB22-31	Zone 3	14.00	18.00	4.00	6.23
LB22-32	Zone 3	18.50	24.00	5.50	8.40
LB22-32	Zone 3	54.50	57.50	3.00	3.66
LB22-33	Zone 3	14.00	18.70	4.70	11.95
LB22-33	Zone 3	24.50	27.70	3.20	8.02
LB22-33	Zone 3	47.50	50.50	3.00	5.28
LB22-34	Zone 3	38.00	41.00	3.00	7.15
LB22-34	Zone 3	44.00	47.00	3.00	8.62
LB22-34	Zone 3	63.00	66.00	3.00	3.08
LB22-35	Zone 3	22.00	26.00	4.00	6.24
LB22-36	Zone 3	28.00	31.50	3.50	2.97
LB22-36	Zone 3	34.00	38.00	4.00	3.49
LB22-37	Zone 3	23.00	26.00	3.00	10.95
LB22-38	Zone 3	24.00	27.00	3.00	3.15
LB22-39	Zone 3	13.00	16.00	3.00	6.05
LB22-39	Zone 3	22.00	25.50	3.50	10.34
LB22-39	Zone 3	36.40	48.00	11.60	4.72
LB22-40	Zone 3	No significant mineralization			
LB22-41	Zone 3	No significant mineralization			
LB22-42	Zone 4	61.00	63.00	2.00	4.30
LB22-42	Zone 4	88.50	89.00	0.50	7.18
LB22-43	Zone 3	No significant mineralization			
LB22-44	Zone 3	23.00	26.00	3.00	4.00
LB22-45	Zone 3	68.00	73.50	5.50	12.59
LB22-46	Zone 3	64.50	68.00	3.50	8.94
LB22-47	Zone 3	Graphitic intervals intersected, no significant mineralization			

Hole Id	Zone	From (m)	To (m)	Length (m)	Cg (%)
LB22-48	Zone 3	19.50	24.50	5.00	9.53
LB22-49	Zone 3	19.00	22.00	3.00	3.38
LB22-50	Zone 3	47.50	53.00	5.50	5.11
LB22-51	Zone 3	29.50	32.50	3.00	7.70
LB22-52	Zone 3	36.00	39.00	3.00	7.64
LB22-52	Zone 3	42.00	45.00	3.00	12.77
LB22-53	Zone 3	36.00	39.00	3.00	5.19
LB22-53	Zone 3	54.00	57.00	3.00	3.15
LB22-54	Zone 8	26.00	32.00	6.00	4.12
LB22-55	Zone 3	20.00	23.00	3.00	2.04

10.1.3.4 Phase 3 Results

Phase 3 drilling included the Pit Zone, Zone 3, and Zone 8.

The 4 holes completed on the Pit Zone were drilled to support and validate the interpretations forming the current 3D geological solid model being utilized for the MRE. The drilling intersected stratigraphy and mineralization as expected, providing verification for the Orrwell drilling data. The graphite mineralization in the Pit Zone area occurs as multiple horizons, which remain open primarily to the north and east for expansion.

The 8 holes completed on Zone 3 focused on expansion and infill for the MRE program. The mineralization remains open in both the strike and dip directions for future drilling. Mineralization is interpreted to occur within a near surface, synformal fold structure trending to the northeast. The drilling suggests the multiple graphite horizons are locally folded and structurally thickened. At the southern extent of Zone 3, holes LB23-60, 61 and LB24-63 were drilled to evaluate the northern limb of the fold structure and holes LB23-62 and LB24-64 the southern limb. All holes intersected significant graphite mineralization. At the northern extent of Zone 3, holes LB24-65 were drilled to evaluate the hinge of the fold structure and holes LB24-66 and 68 the southern limb. All holes intersected significant graphite mineralization except for LB24-68, which is believed to be drilled south of the target horizon. Hole LB24-67 was drilled on a separate target near Zone 8 and, while no significant mineralization was intersected, provided information about the geology in the area.

Summary results from Phase 3 drilling are highlighted in Table 10-8 as values over core length. True widths are currently unknown at Zone 8. True widths are estimated to be between 75% and 85% at the Pit Zone. True widths are estimated to be between 65% and 95% of the downhole length at Zone 3. No issues with core recovery were noted.

Table 10-8: Significant intercepts for the Graphano LAB Phase 3 drilling program

Hole Id	Zone	From (m)	To (m)	Length (m)	Cg (%)
LB23-56	Pit	71.30	75.95	4.65	6.91
LB23-57	Pit	50.00	53.20	3.20	3.04
LB23-58	Pit	92.47	98.36	5.89	5.89
LB23-59	Pit	41.18	45.98	4.80	8.26
LB23-60	Zone 3	3.00	4.90	1.90	9.34
LB23-60	Zone 3	8.31	9.99	1.68	8.12
LB23-61	Zone 3	16.23	18.48	2.25	3.31
LB23-61	Zone 3	23.36	24.98	1.62	3.79
LB23-61	Zone 3	35.55	37.36	1.81	6.05
LB23-62	Zone 3	38.23	42.59	4.36	8.57
LB23-62	Zone 3	48.57	52.05	3.48	13.07
LB24-63	Zone 3	33.16	34.51	1.35	8.45
LB24-63	Zone 3	37.52	42.00	4.48	4.56
LB24-64	Zone 3	53.58	61.22	7.64	7.64
LB24-64	Zone 3	65.93	68.00	2.07	11.40
LB24-64	Zone 3	91.23	94.88	3.65	5.73
LB23-65	Zone 3	40.76	43.43	2.67	15.39
LB23-65	Zone 3	49.64	56.41	6.77	11.84
LB23-66	Zone 3	20.32	23.36	3.04	5.28
LB23-67	Zone 8	No significant mineralization			
LB23-68	Zone 3	No significant mineralization			

10.2 Standard

10.2.1 Graphano: 2022 to 2023

10.2.1.1 Overview

Between May 2022 and December 2023 Graphano completed multiple phases of diamond drilling at the Standard Property for a total of 33 drill holes and 1,583.97 m (Table 10-9, Figure 10-8). Drilling contractor Forage Hébert Inc. of Amos, Québec, was the retained for all phases of the drilling program and NQ diameter (47.6 mm) core was recovered.

SPE was engaged to manage the drill program. Drill collar locations were surveyed with Trimble DGPS after completion. Casing has been left in most drill holes and flagged. Downhole surveys were completed by the drilling contractor using: a DeviShot instrument for drill holes ST22-01 through ST22-03, a Reflex-EZ Shot tool for drill holes ST23-04 through ST23-16, and an Ez-Track instrument for drill

holes ST23-17 though ST23-33. Downhole surveys were taken at regular intervals, often at 3 m increments.

Phase 1 was completed in May of 2022 and included three short drill holes, ST22-01 through ST22-02, targeting mineralization in the historic shaft area.

Phase 2 was completed in early 2023 as a deposit definition program that followed up on positive exploration results from earlier trenching and ground geophysics programs. Drill holes ST23-04 to ST23-17 were completed over a strike length of 500 m

Phase 3 was completed in late 2023 as an infill and Mineral Resource definition program. ST23-17 through ST23-33 focused on enhancing the geological model and overall understanding of graphite distribution.

Table 10-9: Collar table for the 2022 to 2024 Graphano Standard drill programs

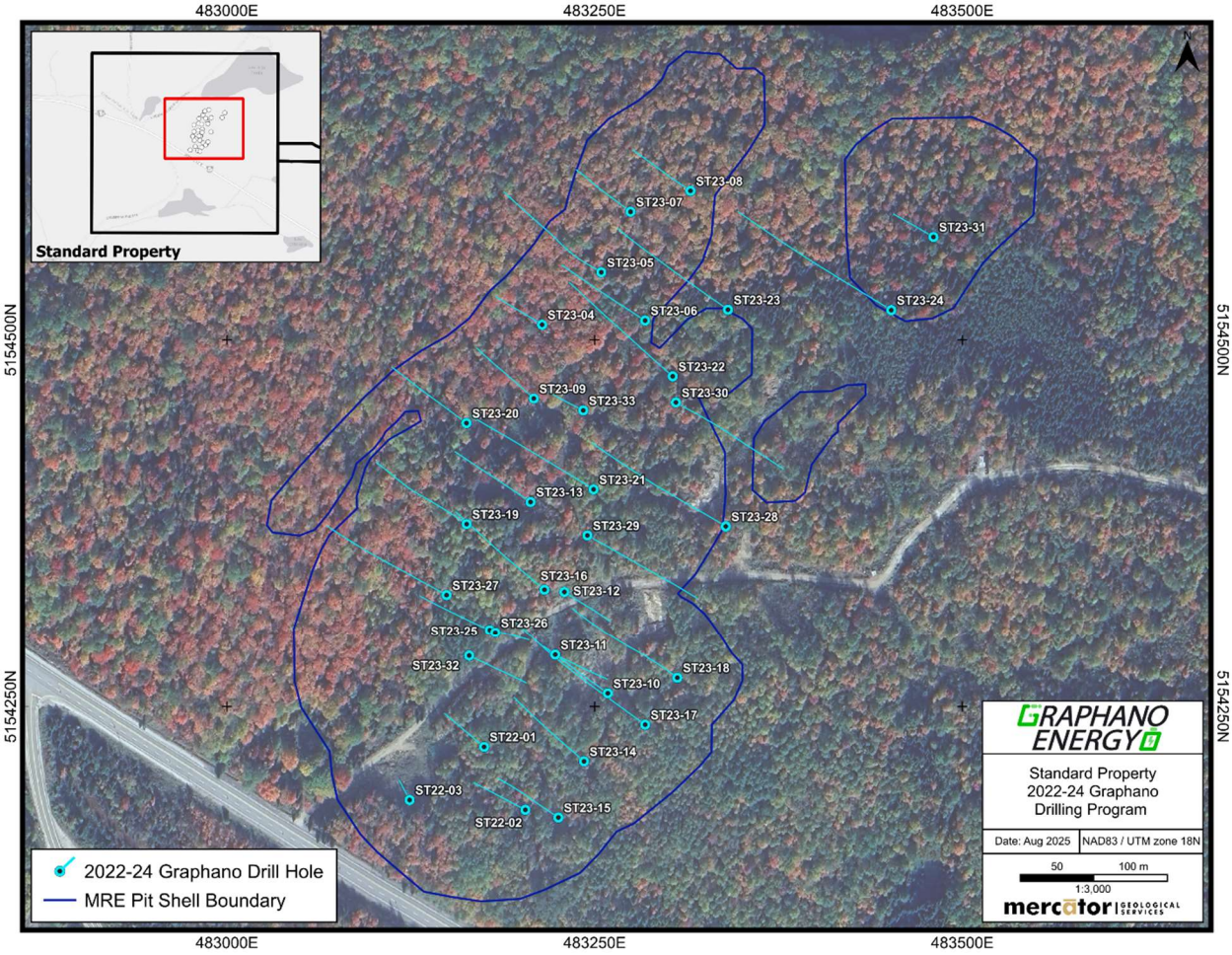
Hole ID	Easting (m)	Northing (m)	Elevation (m)	Depth (m)	Year	Dip (°)	Azimuth (°)
ST22-01	483,174.84	5,154,222.66	373.87	51.00	2022	46.97	310.05
ST22-02	483,202.84	5,154,179.96	373.72	53.10	2022	42.08	297.71
ST22-03	483,124.18	5,154,186.58	366.56	23.00	2022	49.26	332.38
ST23-04	483,214.26	5,154,510.40	390.31	54.20	2023	47.10	302.70
ST23-05	483,254.45	5,154,546.09	398.87	123.00	2023	45.30	300.10
ST23-06	483,284.28	5,154,513.22	400.42	96.00	2023	45.10	302.80
ST23-07	483,274.38	5,154,587.29	401.40	66.00	2023	45.00	307.20
ST23-08	483,315.12	5,154,601.49	400.13	66.00	2023	43.90	304.80
ST23-09	483,208.56	5,154,460.19	390.11	75.00	2023	46.40	312.50
ST23-10	483,258.90	5,154,258.99	386.67	78.00	2023	45.80	305.10
ST23-11	483,223.16	5,154,285.31	384.82	56.50	2023	46.00	114.80
ST23-12	483,229.43	5,154,328.52	389.39	54.00	2023	46.00	122.90
ST23-13	483,206.40	5,154,389.71	390.04	90.00	2023	46.50	303.80
ST23-14	483,242.73	5,154,212.84	379.51	92.00	2023	46.20	311.30
ST23-15	483,225.31	5,154,174.72	374.55	69.00	2023	45.40	304.10
ST23-16	483,215.85	5,154,329.99	387.80	111.00	2023	45.00	310.20
ST23-17	483,284.32	5,154,237.71	386.67	156.00	2023	44.69	306.22
ST23-18	483,306.21	5,154,269.57	390.30	118.72	2023	44.04	299.12
ST23-19	483,162.91	5,154,374.71	381.21	102.00	2023	43.32	299.28
ST23-20	483,162.78	5,154,443.44	383.19	93.00	2023	47.06	306.29
ST23-21	483,249.25	5,154,398.33	394.53	138.00	2023	46.06	302.05
ST23-22	483,303.00	5,154,475.26	400.78	129.00	2023	43.27	312.34
ST23-23	483,340.60	5,154,520.61	402.05	129.00	2023	44.78	303.47

Hole ID	Easting (m)	Northing (m)	Elevation (m)	Depth (m)	Year	Dip (°)	Azimuth (°)
ST23-24	483,451.66	5,154,520.29	396.30	168.00	2023	43.82	300.41
ST23-25	483,178.69	5,154,302.36	378.66	75.00	2023	68.51	103.06
ST23-26	483,182.45	5,154,300.67	379.11	132.00	2023	64.72	293.35
ST23-27	483,149.28	5,154,326.35	375.60	132.00	2023	45.31	297.63
ST23-28	483,339.14	5,154,373.14	397.92	150.00	2023	44.96	301.93
ST23-29	483,245.00	5,154,367.00	392.69	123.00	2023	46.39	119.59
ST23-30	483,305.23	5,154,457.50	400.54	123.00	2023	45.11	118.67
ST23-31	483,480.37	5,154,570.09	398.44	48.00	2023	50.31	300.09
ST23-32	483,164.67	5,154,284.66	374.03	84.00	2023	59.06	115.16
ST23-33	483,242.21	5,154,452.10	394.69	90.00	2023	70.55	296.76

***** UTM NAD83 Zone 18N coordination, masl elevation

Most of the holes intercepted varying amounts of graphite mineralization hosted within recrystalized limestone as part of a stratigraphic sequence of predominantly paragneiss and quartzite, which can also host anomalous to low grade graphite mineralization. Half-core drill core samples were sampled, stored, and shipped using industry best practices and were delivered to Actlabs for sample preparation and analyses using Actlabs' Code 4F-C. Actlabs is an independent commercial and ISO Certified Laboratory. Core sample programs also included quality control samples as part of QAQC procedures. A total of 1,877 core samples, exclusive of quality control samples, are recorded for the Graphano Standard drill programs in the Mineral Project drill hole database.

Figure 10-8: Collar location map of Graphano drilling at Standard



10.2.1.2 Phase 1 Results

Two of the holes intersected encouraging graphite mineralization, highlighted by ST22-02 that returned 11.61 % Cg over 3.3 m (core length). Drill hole ST22-03 entered the old underground mine workings at a depth of 23 m and was abandoned without testing the mineralization. These drill holes are located at the southern extent of the property where continuity is interpreted to be impacted to the north by shearing and folding. Subsequent deposit evaluations have also resulted in the interpretation that the three drill holes were drilled sub-optimally down dip to the overall eastern limb orientation.

Summary results from Phase 1 drilling are highlighted in Table 10-10 as values over core length. True widths are estimated to be between 50% and 75%. No issues with core recovery were noted.

Table 10-10: Significant intercepts for the Graphano Standard Phase 1 drilling program

Hole Id	From (m)	To (m)	Interval(m)	Cg (%)
ST22-01	10.5	11	0.5	7.23
ST22-02	12.3	12.7	0.4	6.02
ST22-02	23.5	26.7	3.2	11.61
ST22-03	Hit underground mine workings – Abandoned			

10.2.1.3 Phase 2 Results

The Phase 2 drill program at Standard intersected very significant graphite mineralization over more than a 500 m strike length. The mineralized zones range in thickness from 3 to 20.5 m with an average thickness of 9.3 m (core lengths). Most of the drilled holes were shallow, to a maximum vertical depth of 60 m, to test the immediate near surface depth and thickness of graphite mineralization that was exposed during trenching and channelling conducted in 2022.

The graphite mineralization observed during drilling is associated with recrystalized limestone within a sequence of paragneiss and quartzite. Mineralization is interpreted to occur within a near surface, synformal fold structure trending to the northeast. The drilling suggests the multiple graphite horizons are locally folded and structurally thickened. Drill holes ST23-04 through ST23-09, ST23-13, and ST23-16 targeted the western trend, now defined as the western limb, and drill holes ST23-10 through ST23-12, ST23-14, and ST23-15 targeted the eastern trend, now defined as the eastern limb.

Summary results from Phase 2 drilling are highlighted in Table 10-11 as values over core length. True widths are estimated to be between 50% and 95%. No issues with core recovery were noted.

Table 10-11: Significant intercepts for the Graphano Standard Phase 2 drilling program

Hole Id	From (m)	To (m)	Length (m)	Cg (%)
ST23-04	14.00	18.00	4.00	6.66
ST23-05	7.50	19.00	11.50	6.46
ST23-05	30.00	39.00	9.00	4.27
ST23-06	31.00	34.00	3.00	3.81
ST23-06	52.00	55.00	3.00	5.18
ST23-07	17.00	23.60	6.60	6.61
ST23-07	32.00	36.00	4.00	4.26
ST23-08	20.00	23.00	3.00	3.84
ST23-08	54.00	57.00	3.00	7.84
ST23-09	27.00	31.00	4.00	4.52
ST23-09	39.00	47.00	8.00	5.37
ST23-10	41.00	57.60	16.60	5.80

Hole Id	From (m)	To (m)	Length (m)	Cg (%)
ST23-11	20.00	23.50	3.50	5.17
ST23-11	32.00	44.00	12.00	7.72
ST23-12	6.30	13.00	6.70	3.51
ST23-13	7.00	13.60	6.60	13.52
ST23-13	57.00	69.00	12.00	8.18
ST23-14	70.50	73.50	3.00	4.18
ST23-15	28.00	31.50	3.50	4.36
ST23-15	55.00	58.00	3.00	4.60
ST23-16	84.00	89.50	5.50	4.25

10.2.1.4 Phase 3 Results

The Phase 3 drilling program focused on deposit definition and extension for the MRE program. Holes ST23-17, ST23-25 and ST23-26 locally define a northwesterly dipping mineralized zone averaging 14 m in drilled thickness. Drill holes ST23-17 and ST23-25 are interpreted to intersect the eastern limb and drill hole ST23-26 is interpreted to intersect the hinge of the synformal structure. Holes ST23-32, ST23-18 and ST23-29 evaluated the immediate strike extension of this zone both north and south and encountered significant graphite mineralization over an approximate strike length of 150 m.

Drill holes ST23-19 through ST23-23, ST23-27, and ST23-33 were drilled as step-outs to extend the mineralization on the western limb. The drilling successfully extended mineralization and indicates a western limb trend dipping to the southeast towards the northwest dipping eastern limb. Local continuity of graphitic zones was variable in grade and width, and this is interpreted to be related to tight folding within the overall western limb trend and local intensity of felsic intrusions. Drill Hole ST23-22 provided definition of a new horizon of near surface mineralization grading 7.34% Cg over 3.03 m (core length) at a drilled depth of 8.92m.

Drill holes ST23-24, ST23-28, ST23-30, and ST23-31 were drilled as step-outs to extend mineralization along the eastern limb by an additional 250m strike length. The northern most holes of the program, ST23-24 and ST23-31, both encountered significant graphite mineralization, with hole ST23-31 grading 6.09% Cg over a 13.06 m (core length). The deposit remains open to the northeast.

Summary results from Phase 3 drilling are highlighted in Table 10-12 as values over core length. True widths are estimated to be between 50% and 95%. No issues with core recovery were noted.

Table 10-12: Significant intercepts for the Graphano Standard Phase 3 drilling program

Hole Id	From (m)	To (m)	Length (m)	Cg (%)
ST23-17	28.61	41.93	13.32	11.88

Hole Id	From (m)	To (m)	Length (m)	Cg (%)
ST23-17	80.70	91.73	11.03	4.04
ST23-18	64.63	73.34	8.71	3.13
ST23-18	108.63	111.93	3.30	5.29
ST23-19	25.75	30.98	5.23	6.28
ST23-19	40.43	44.57	4.14	5.57
ST23-19	52.47	57.73	5.26	4.89
ST23-19	78.80	81.68	2.88	4.35
ST23-19	83.32	84.96	1.64	7.00
ST23-20	8.46	11.18	2.72	6.42
ST23-20	47.70	49.32	1.62	7.37
ST23-21	4.33	6.78	2.45	5.73
ST23-21	33.80	35.54	1.74	12.20
ST23-21	68.79	83.83	15.04	15.57
ST23-22	8.92	11.95	3.03	7.34
ST23-22	51.90	57.48	5.58	3.99
ST23-23	71.10	72.24	1.14	12.90
ST23-24	52.96	57.71	4.75	5.6
ST23-24	68	69.95	1.95	3
ST23-25	15.00	18.10	3.10	3.34
ST23-25	36.27	47.05	10.78	5.02
ST23-25	63.00	66.00	3.00	2.27
ST23-25	66.00	75.00	9.00	0.48
ST23-26	70.96	91.23	20.27	9.76
ST23-27	26.40	29.80	3.40	5.97
ST23-27	51.62	58.15	6.53	3.42
ST23-27	98.38	101.56	3.18	3.82
ST23-28	24.17	24.75	0.58	14.3
ST23-28	33.7	36.09	2.39	2.72
ST23-29	80.24	84.24	4.00	2.97
ST23-29	101.54	107.81	6.27	4.04
ST23-30	54.10	57.11	3.01	2.51
ST23-30	65.00	67.96	2.96	6.57
ST23-31	20.33	33.39	13.06	6.09
ST23-32	48.07	52.80	4.73	12.03
ST23-32	63.00	66.84	3.84	5.09
ST23-33	36.81	41.21	4.40	4.86
ST23-33	64.52	67.27	2.75	4.90

11.0 SAMPLE PREPARATION, ANALYSES AND SECURITY

Between 2022 and 2024, Graphano completed various diamond drill programs that total 69 drill holes for 5,672.79 m on the LAB Property and 33 drill holes for 3,148.52 m on the Standard Property. Channel sample programs were also completed at this time.

SPE was retained to manage all Graphano exploration and drill programs. Mercator supplied logging geologists to the Mineral Project from November 2023 to January 2024. This reflects drill holes ST23-17 to ST23-31 and LB23-56 to LB24-68.

Danei St-Pierre and Celine Pardis of SPE advised the QP that all logging, sampling and sample shipment preparation activities were carried out under secure conditions at the core logging and storage facility. Drill core was under custody of authorized personnel from the time it was picked up from the drill site to the time associated samples were shipped to the primary laboratory for preparation and analysis. Authorized personal included SPE, contract logging geologists, Graphano staff, and the owner of the core facility and long-term storage property.

Two historical diamond drilling programs were completed on the LAB Property. Between November 11, 1981, and February 16, 1983, Orrwell completed 84 diamond drill holes for 5,959.19 m and between the 11th and 23rd of March, 2018, GEC completed 4 diamond drill holes for 385 m. Various levels of documentation were available for the historical programs, including historical technical reports and the Government of Québec assessment reporting available through SIGEOM. Detailed information is not consistently present for work carried out prior to Graphano's operation with respect to the reporting of drill logs, sample records, laboratory assay certificates, QAQC procedures, verifiable location data, sample preparation, analysis, and security.

11.1 Historic Sampling Programs

Core samples from Orrwell drill program completed in the 1980's were analyzed at Assayers Ontario Limited Laboratories and were tested for total carbon, carbonate carbon and non carbonate carbon (graphitic carbon). Assayers Ontario Limited Laboratories is independent of Graphano.

Core samples from the 2018 GEC program were logged and split by wet diamond saw with half sent to the lab for analysis and half stored securely in a garage in Mont Laurier. The core sample lengths were selected depending on geological boundaries and visual graphite mineralization. Additional QAQC procedures include inserting blanks into the core sample stream at industry standard intervals with duplicate core samples taken at intervals of twenty. Total of 74 samples were sent in two batches to Laboratories, Lakefield, Ontario for assaying, including 5 duplicates and 4 blanks. Core samples were analyzed using SGS code GE/GO/GC_CS A05V. During analysis, the core samples are dried, pulverized, leached, and roasted at 550° Celsius for one hour to remove all organic carbon. Carbonate carbon is then leached/evolved using HCl. The sample is then dried to remove the chlorides. The residue is mixed

with metal accelerators and placed in the LECO IR combustion system. The residual carbon is taken as graphitic carbon. With high grade carbon, samples are wetted with methanol prior to acid addition. The results are exported via computer, online, data fed to the Laboratory Information Management System with secure audit trail. SGS is independent of Graphano.

11.2 Graphano Sampling Programs

11.2.1 Trenches

Trenches were located in prospective stratigraphy based on TDEM anomalies and prospecting. The trenches were dug to blade refusal and cleared for channel sampling. Channel samples were completed for intervals where visual graphite was apparent and ranged from a minimum of 50 cm to a maximum of 100 cm long, 5 cm wide, and 3-5 cm deep cut in bedrock. Channel samples were collected perpendicular to the strike of mineralization. The trenches have not been fully mapped for geology.

Channel samples were assigned a lithology, visual graphite estimate, and associated bedding / foliation / structural measurements. Samples were bagged and tagged on site and were transported to the core logging and storage facility to be shipped to Actlabs for analysis. QAQC samples were not included in the channel sample programs.

Sample locations are determined by GPS and spatial variance is observed in dataset. Mercator has recommended that Graphano complete a re-surveying program of the channel samples that includes tape and measure so they can be properly incorporated into future deposit assessments.

11.2.2 Diamond Drilling

Core (NQ size core, 47.6 mm diameter) was collected from the drill and placed into core boxes at the drill site by the drilling contractor. Small wooden tags mark the distance drilled in metres at the end of each run. On each filled core box, the drill hole number and sequential box numbers are marked by the drill contractor. Once filled and identified, each core tray is brought to the core logging facility by SPE.

Each core box was inspected by a technician for meterage continuity. Core boxes were labelled with aluminum tags showing the drill hole number, box number, and from-to metres. The Rock Quality Designation (RQD) was measured and recorded. The logging geologist recorded lithology, alteration, texture, colour, mineralization, structure and marked the core for sampling. Sample intervals were selected based on visual graphite estimates. All samples of graphitic mineralization were taken at approximately 1 m intervals, adjusted with respect to lithological and/or mineralogical contacts. All geotechnical logging, geological logging and sample data was recorded in Excel format and eventually compiled into a digital database. The core was then photographed, both wet and dry.

Core sections marked for sampling were sawn in half with one half of the core being placed in sample bags with the corresponding sample tags and the bag being sealed. Bags are also marked externally with the sample tag number. Quality control samples, including CRM, blank material, and core duplicates, are inserted into the sample stream on a regular basis. Duplicate core samples were prepared by splitting the core in half with a core saw (primary sample), and then selected duplicate intervals were made by quartering the halved core. The half and quarter core samples were shipped to Actlabs. Half-core from the Mineral Project is stored, cross-stacked, in palletized piles outdoors at the core logging facility.

11.2.3 Analysis

All samples collected for the trenching and drilling programs were sent to Actlabs for analysis, a geochemical services company accredited to international standards, with assay lab ISO 17025:2017 certification and certification to ISO 9001:2015. Graphano is fully independent of Actlabs. The Actlabs facility in Ancaster, Ontario carried out the sample login/registration, sample weighing, sample preparation and analyses.

Samples are crushed to 80% less than 2 mm and a riffle split is pulverized to 95% passing 105 microns. A 0.5 g sample is subjected to a multistage furnace treatment to remove all forms of carbon except for graphitic carbon. Either a resistance or induction furnace is used for analysis. The inductive elements of the sample and accelerator couple with the high frequency field of the induction furnace. In a pure oxygen environment, the heat generated by this coupling cause the sample to combust. During combustion, carbon-bearing elements are reduced, releasing the carbon, which immediately binds with the oxygen to form carbon monoxide ("CO") and carbon dioxide ("CO_2"), the majority being CO_2. Carbon is measured as CO_2 in the IR cell as gases flow through the IR cells. CO_2 absorbs IR energy at a precise wavelength within the IR spectrum. Energy from the IR source is absorbed as the gas passes through the cell, preventing it from reaching the IR detector. All other IR energy is prevented from reaching the IR detector by a narrow bandpass filter. Because of the filter, the absorption of IR energy can be attributed only to CO2. The concentration of CO2 is detected as a reduction in the level of energy at the detector. The analysis is performed using ELTRA Instruments. The lower detection limit for C as graphitic carbon ("Cg") is 0.05% Cg.

11.2.4 QAQC

Graphano has implemented two different QAQC procedure during their drilling campaigns. From February 2022 to January 2023, which includes drill holes LB22-01 to LB22-55 and ST22-01 to ST23-16, Graphano regularly inserted a quality control sample at a frequency of 1 in 10 samples, alternating between a blank material sample and a quarter core duplicate. From November 2023 to January 2024, which includes drill holes ST23-17 to ST23-31 and LB23-56 to LB24-68, the QAQC program was expanded to include a CRM in addition to blank material samples and quarter core duplicates. Quality control samples were inserted at a frequence between 1 in 10 and 1 in 15 during this period.

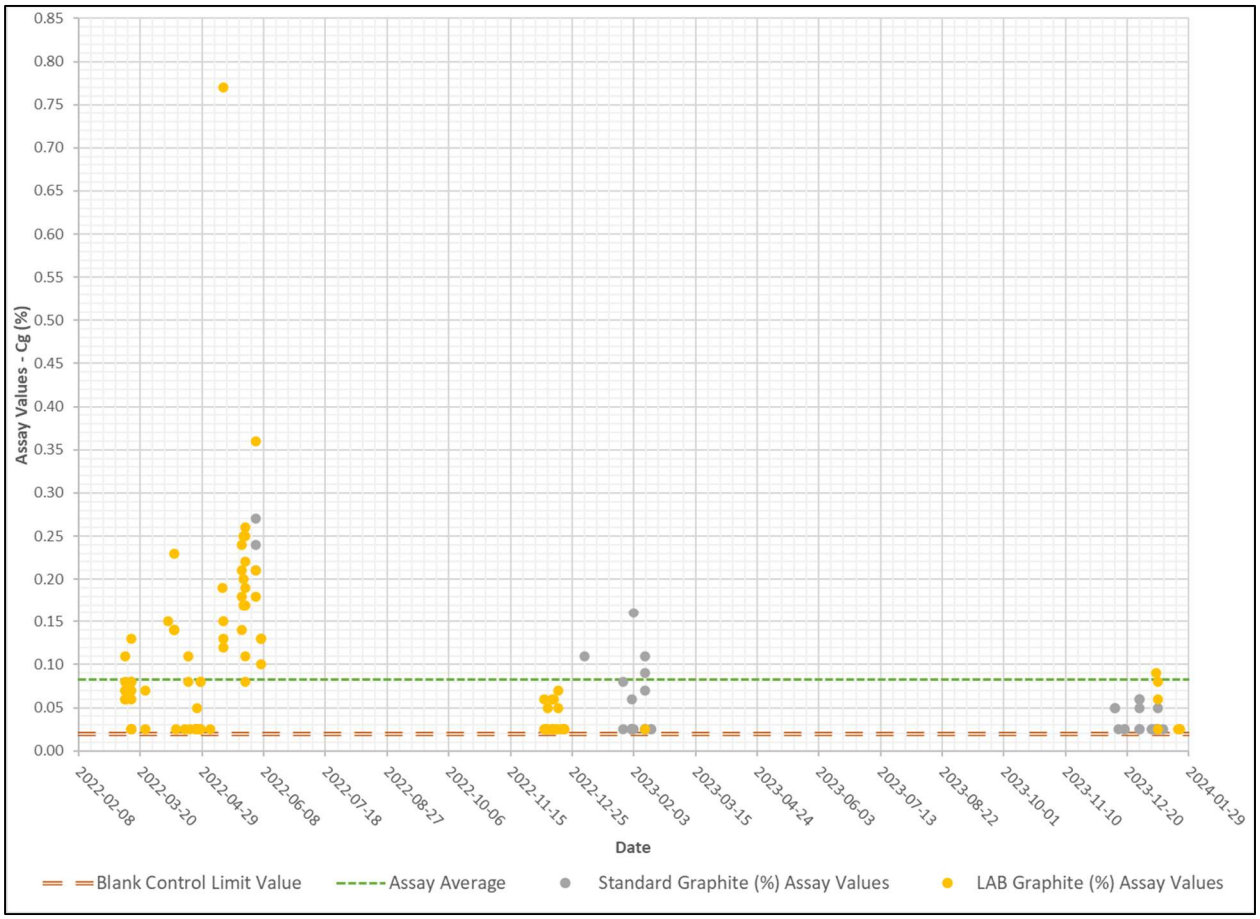
Actlabs also carries out their own analysis of CRMs, runs blank aliquots, and carries out duplicate and replicate ("preparation split") analyses within each sample batch as part of their own internal monitoring of quality control. Actlabs internal QAQC procedures returned acceptable results.

11.2.4.1 Blank Material

A total of 137 blank material samples were inserted in the sample stream by Graphano during their drill programs. Blank material consisted of non-mineralized white quartz purchased from local hardware stores. Results for the blank material sample program over time are presented in Figure 11-1.

Anomalous Cg % values were returned for a few batches of samples analyzed in the spring of 2022. This may indicate that cross-contamination was present or that the blank material used was not absent of graphitic carbon. Acceptable results were returned for the quarter core duplicates and the Actlabs control samples during the same period, indicating that the issue may be associated with the material used. The other sample batches submitted by Graphano returned acceptable blank material results. Overall, there does not appear to be a systematic cross contamination issue and the average value of blank material values is acceptable. The QP recommends that Graphano further investigates the sample batches with elevated blank results to ensure that no cross contamination occurred.

Figure 11-1: Blank material sample results for Graphano drill programs - 2022 to 2024

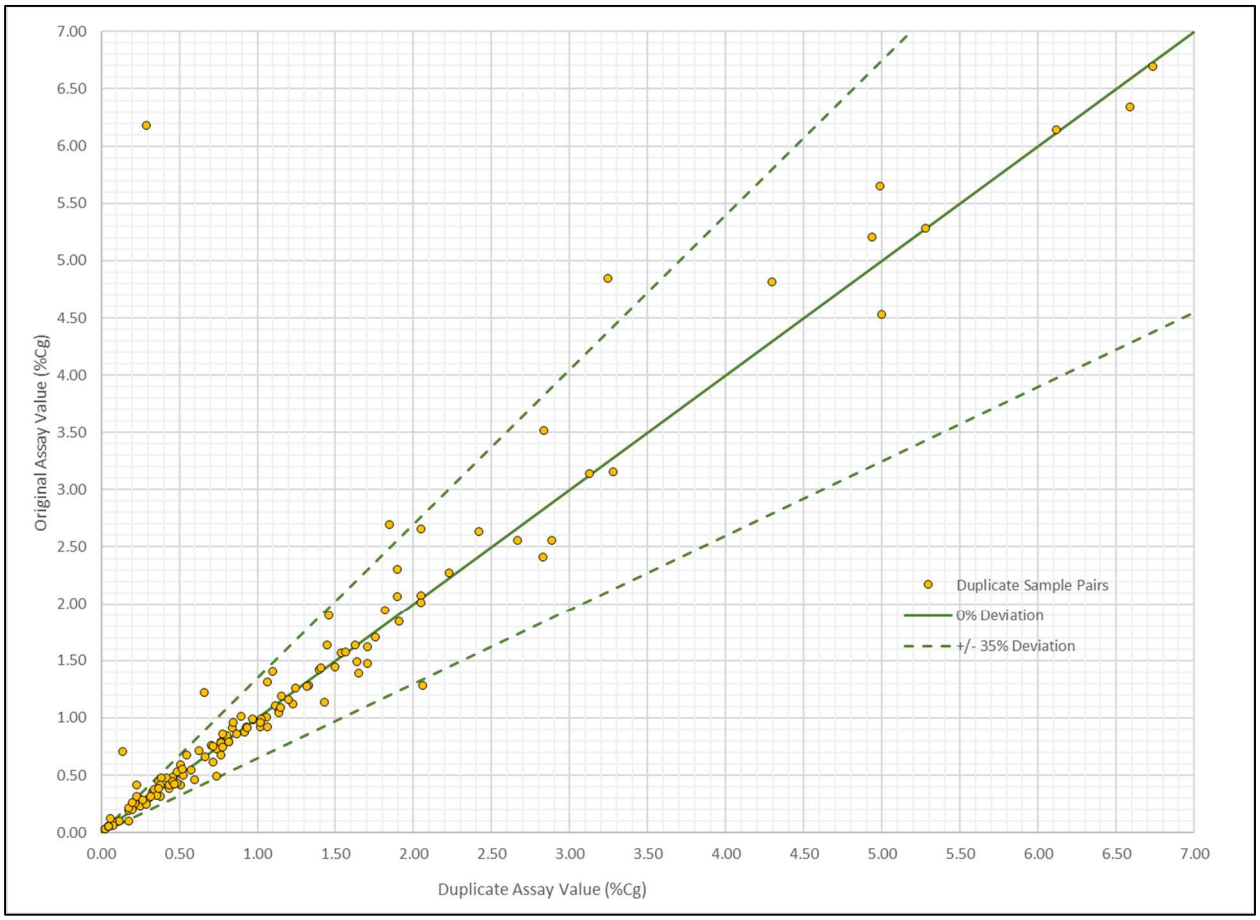


(Mercator 2025)

11.2.4.2 Core Duplicates

A total of 150 quarter core duplicates were prepared by Graphano during the 2022 – 2024 drill programs. Results for duplicate pairs (duplicate vs original) are presented in Figure 11-2. Duplicate split pairs correlate well along a 1:1 trend. The highest variance between duplicate pairs is observed at lower graphite concentrations. This generally reflects samples with less than 1.0 % Cg for both the original and duplicate and may represent variability of grade distributions at those levels. One extreme outlier is observed for a pairing with an original value of 6.18% Cg and a duplicate value of 0.29% Cg. The QP reviewed the available supporting documentation for this sample interval and it is observed to host between 5 and 7% disseminated coarse graphite. This indicates that the duplicate sample may be assigned to the wrong original sample. Overall, results of the core duplicate program show that grade distributions at the sampled scale are relatively homogenous and that associated analyses reflect acceptable precision.

Figure 11-2: Quarter core duplicate sample results for Graphano drill programs - 2022 to 2024



(Mercator 2025)

11.2.4.3 Certified Reference Material ("CRM")

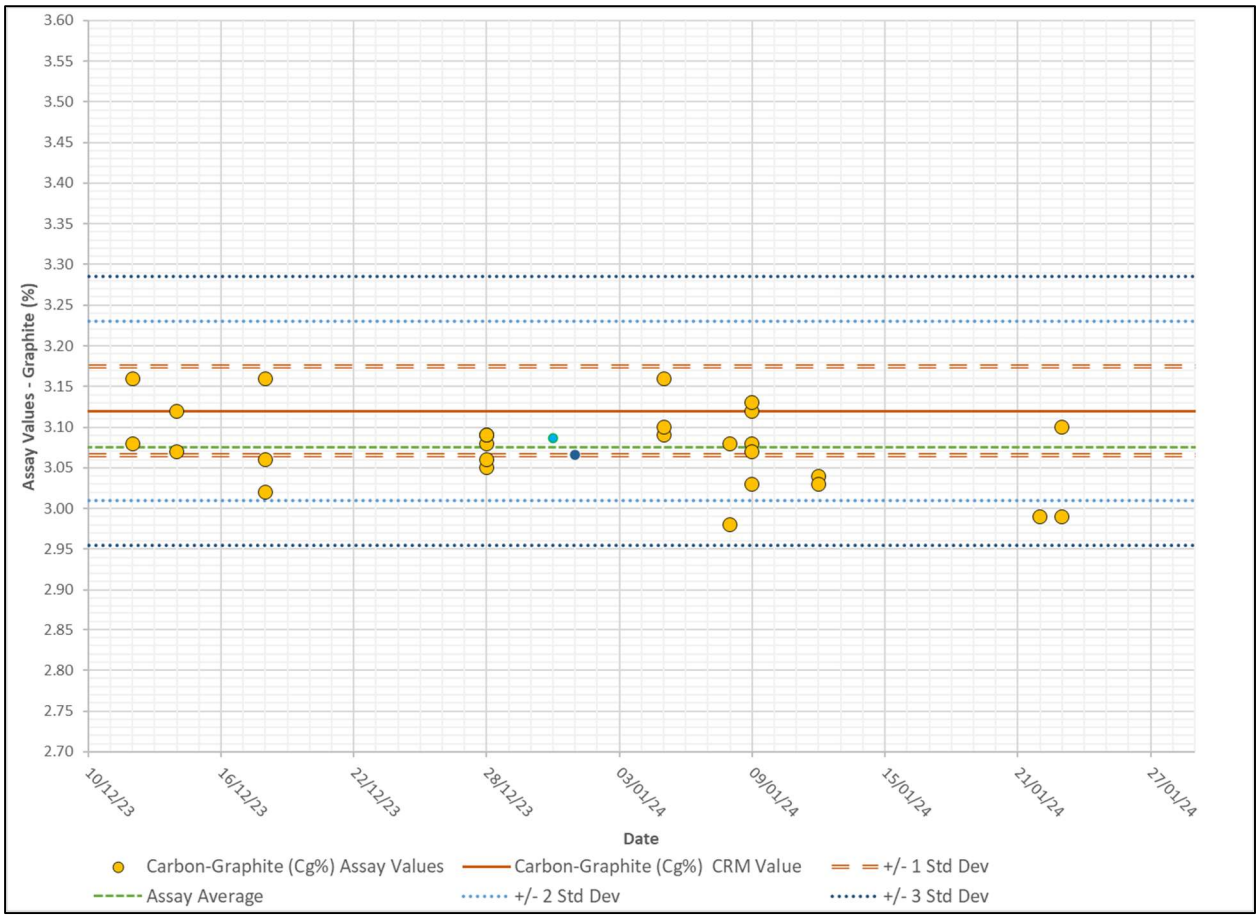
A total of 27 CRM samples were submitted for analysis by Graphano as part of their drill program completed from November 2023 to January 2024.

CDN Resource Laboratories Ltd. CDN-GR-1 was used by Graphano as a CRM. CDN-GR-1 was prepared using ore supplied by Noram Ventures Inc. from their Kokanee Graphite property near Crawford Bay on Kootenay Lake in southeastern British Columbia. Metamorphic graphite is hosted in pelitic and epiclastic sedimentary rocks of the Paleozoic Index Formation of the Lardeau Group within the Kootenay Arc Metamorphic Complex. These rocks are amphibolite facies quartzites and quartz-muscovite-biotite ± garnet and sillimanite schists. The certified value for CDN-GR-1 is 3.12 +/- 0.11% Cg.

Figure 11-3 shows the performance of the CRM over time. Most samples returned values within 2 standard deviations and all samples returned values within 3 standard deviations. There is an overall low bias in the CRM performance with an average assay value of 3.08% Cg. Although results are below the expected value there is still acceptable precision and no significant issues are present.

Mercator recommends adding a second CRM to the submission stream to ensure accurate reporting at different grade ranges.

Figure 11-3: CRM CDN-GR-1 results for the November 2023 to January 2024 drill program



(Mercator 2025)

11.3 QP Comment on Sample Preparation, Analysis, and Security Program

The QP has concluded that the sample preparation, analysis, QAQC, and security procedures implemented by Graphano are consistent with current industry standards and that associated analytical results are acceptable for Mineral Resource estimation purposes. Procedures in this regard for historical programs are not well documented.

12.0 DATA VERIFICATION

12.1 Overview

Data verification procedures carried out by the QP for the Mineral Project consisted of:

- Review of public record and internal source documents cited by previous operators and Graphano with respect to key geological interpretations, previously identified geochemical or geophysical anomalies; and historical and current exploration and drilling results;
- Completion of a MRE Database Verification Program of historical exploration and Graphano drilling results;
- Completion of a site visit to the Mineral Project between May 12 and 15, 2025. No issues were identified that negatively impact the findings and conclusions of this Technical Report.

12.2 Review of Supporting Documents, Databases, and Assessment Reports

The QP obtained copies of relevant assessment work reports, internal documents, and technical reporting as part of the data validation procedures. Key aspects of historical reporting are in part referenced in this Technical Report and were obtained from Graphano or through online searching of historical assessment reports available through the provincial government online report database. Results of the reference documentation checking program showed that in all instances considered, digital and hard copy records accurately reflect content of referenced source documents.

Drilling data for both historical and Graphano exploration programs was provided to the QP by Graphano in the form of digital drill logs, drill log summaries, text file and Excel spreadsheet, original assay certificates, and various GIS files. The QP and his employer Mercator have been actively involved with the Mineral Project since 2023, including geological modelling and drill program support. As such, the QP had readily access and very good familiarity with historical reporting in advance of this Technical Report.

12.3 Mineral Resource Estimate Drillhole Database Validation Program

Mercator received final Mineral Project drill hole database results from Graphano at the completion of the 2023-2024 drill program. Mercator was directly involved in the execution of the drill program and as such received and managed project data until completion.

The LAB deposit was subject to historical exploration programs by Orrwell in the early 1980's and by GEC in 2018 that includes, but is not limited to, geological and geophysical data, drill hole data, surface surveys, geological and drill hole plan maps and sections, drilling, logging and sampling procedures, presentations and reports, and other relevant information. Drill hole data from these historical programs were verified and incorporated in the Mineral Project database.

When possible, historical assays associated with these programs were compared with the original assay certificates issued by the laboratories. For historical drill holes where original assay certificates were not available, the data contained in the database were cross validated with original drill logs. The information in the database matches the certificates provided by the laboratories and the historic drill logs. No errors were found during this validation.

The Orrwell drill program was completed on a local grid system that was translated to UTM NAD83 Zone 18N coordination from historical drill plans and field reconnaissance. The drill hole collar elevations were validated using a 10 m resolution digital elevation model ("DEM") based on a 2 m DEM downloaded from MRNF. In the Pit Zone area, where historical open pit mining was completed by Orrwell, a historical DEM was interpolated to verify collar elevations. GEC collar locations were validated against original source documents. Downhole surveys were not documented for either the Orrwell or GEC programs and drill hole orientation data was validated against drill log entries.

As part of the Graphano 2023 – 2024 drill program, 4 drill holes were completed to further validate the Orrwell drill hole data at the Pit Zone. While these drill holes were targeted between Orrwell intercepts and are not true twins, every hole confirmed the geology, mineralization, spatial registration, and continuity of the adjacent drill holes.

As previously discussed, Mercator has been actively involved with Graphano on the Mineral Project since 2023. Mercator initially developed a Microsoft Access drill hole database for all drill hole data prior to the 2023 – 2024 drill program completed on the Standard and LAB properties. In addition to the historical data described above, Graphano drill hole data from the 2022 to 2023 period were compiled and validated. Original assay certificates were directly imported and linked to the respective assay sample sheets. The Mineral Project drill hole database was then updated for the 2023 – 2024 drill program with original assay certificates again directly imported. Spot checks were completed for all interval data including but not limited to geology, mineralization, assay, and structure. Collar locations were also spot checked against source data files.

All original downhole survey files for Graphano drill holes were reviewed, verified, and in some circumstances interpreted. This is due to the high magnetic field of the host rocks and high variability in downhole hole survey readings. Downhole survey data was conditioned to remove doglegs, illogical deviations, and QAQC failures during data acquisition.

No material issues were found during the database verification program and minor corrections were made where appropriate. The author believes that the database is valid and can be used for a MRE.

12.4 QP Author M. Harrington Site Visit and IW Sampling

The QP carried out a site visit to the Mineral Project between 12th and 15th of May, 2025. The focus of the site visit was to:

- review drill core from drilling programs carried out by Graphano;
- collect IW representative quarter core check samples;
- carry out drill collar coordinate checks for the Graphano and historical programs; and
- to satisfy NI 43-101 "personal inspection" and data verification requirements.

During the 2025 site visit, one day was spent at the exploration core facility and core storage area to complete a detailed drill core review, a database checking program, collection of IW quarter core check samples, and review of core logging, sampling, QAQC and sample security procedures. The second day was spent in the field at the LAB and Standard properties. The Black Pearl Property was not visited due to time constraints. The site visit was coordinated with Daniel St.Pierre and Celine Pardis of SPE who managed all Graphano drill programs, and Roger Dahn, B.Sc., P.Geo., a director of Graphano.

12.4.1 Core Facility and Site Access

The core logging facility and core storage area is located 10 minutes south of Mont Laurier, between the town and the LAB Property. The core logging facility is rented shed and yard from a local resident (Figure 12-1). No active drill programs were ongoing during the time of the site visit and the facility was being used for personal storage. The core facility contains a bench that is setup as a core logging bench for active drill programs.

All Graphano core completed on the Mineral Project is stacked, palatized and tarped for outdoor storage. At the time of the site visit, several tarps showed weathering and tearing and several palettes required maintenance (Figure 12-2). SPE advised that these items are routinely addressed during active exploration programs on a as need basis and the identified maintenance items were currently underway. The palettes are clearly labelled and the boxes are properly tagged.

The property owner manages access to facility and core storage area. Access to the facility is generally limited to SPE, contract staff, Graphano staff, and the owner during exploration and core sampling programs and can be locked as necessary. The owner has on occasion facilitated after hours sample shipments when SPE could not be present. The outdoor core storage is in an open area without any fencing or barriers in place.

A core saw is stored at the facility and is typically setup outside or inside with proper ventilation through the bay doors (Figure 12-3) when required.

Figure 12-1: Core logging facility used for the 2022 to 2024 Graphano drill programs

(Mercator 2025)

Figure 12-2: Core storage for the 2022 to 2024 Graphano drill programs

(Mercator 2025)

Figure 12-3: Core saw setup during the site visit

(Mercator 2025)

The LAB Property occurs 20 km to the south of Mont Laurier by Highway 309, whereas the Standard Property occurs 40 km west along Highway 117, respectively. Tertiary and forest roads provide excellent access to the different areas of the properties and access to the drill sites is readily achieved by truck or ATV (Figure 12-4). Most of the Mineral Project area is forested, with some farmlands near lakes and the river. Many historical features are still present at LAB from Orrwell's operation including the old mill building and open pit (Figure 12-5).

Figure 12-4: Main access points for LAB (above) and Standard (below) properties

(Mercator 2025)

Figure 12-5: Orrwell historical open pit a LAB

(Mercator 2025)

12.4.2 Core Review

During the site visit, a detailed review of lithocoding, core sampling and logging records for drill holes LB22-31, LB23-56, LB23-59, LB24-65, ST23-05, ST23-11, ST23-25, ST23-26, and ST23-31 was carried out by the QP at the core facility. These holes were selected to cover a range along the property area and within the limits of the current MRE (Figures 12-6 and 12-7).

Figure 12-6: LB23-56 - 4.5m recrystalized limestone unit with coarse disseminated graphite within a quartzite/paragneiss (70%/30%) sequence

(Mercator 2025)

Figure 12-7: ST23-11 – 12 m recrystallized limestone unit with coarse disseminated graphite and minor units of quartzite and paragneiss

(Mercator 2025)

Drilling database lithocode entries, mineralization and sample record intervals were spot checked against the recorded code and associated correlations. No substantial errors were identified. Logging and sampling records were found to accurately describe the various observed features of the core present. Similarly, sample tags and associated intervals represented in the core boxes were checked against the corresponding digital database sample records. In all instances checked, the core box and database records agreed. Lithocodes and alterations were also found to consistently correlate with recognizable rock units. Importantly, clear identification of coarse graphite and their percentages was consistently apparent.

The QP verified the data collection and QAQC procedures for the logging and sampling program during the site visit including core handling, logging and sampling procedures, and the insertion of QAQC samples (CRM, core duplicates, and blank material). There were no issues identified with the procedures in place and adherence was apparent.

12.4.3 Drill Collar Coordinate Check Program

Drill collar coordinate checks were carried out during the site visit that consisted of the acquisition of field collar coordinates from 26 LAB drill holes, including 24 from Graphano and 4 from GEC, and 24 Standard drill holes. Focus on the LAB Property was towards the Pit Zone and Zone 3 MRE areas. (Figure 12-8, Figure 12-9). A handheld GPS unit was used to collect UTM NAD83 Zone 18 coordinates for drill collars, trenches (Figure 12-10), and outcrop located in the field. Coordinate verification against database records showed that easting, northing and elevation values collected in the field have a variation range of only a few metres in easting and in northing. The azimuth and dip of drill casing was also noted in the field and compared to the drill hole database records with acceptable. The QP is of the opinion that the locations of the reviewed drill holes in the field are reasonable with respect to recorded collar coordinate entries.

Site inspections carried out by the QP at the drill locations shows care had been applied to minimize surface disturbances. At LAB, there was little evidence of refuse, excessive rutting or unnecessary forest cutting noted. At Standard, the main property owner was actively excavating trails and the overall the site was more disturbed. Away from the main excavation area, little evidence of refuse, excessive rutting or unnecessary forest cutting was noted. Trenches completed by Graphano are still open.

Figure 12-8: Labelling and casing for LB23-57

(Mercator 2025)

Figure 12-9: Labelling and casing for ST23-32

(Mercator 2025)

Figure 12-10: Representative trenching and channel sampling at Standard

(Mercator 2025)

12.4.4 IW Check Sample Results

The QP collected a total of 21 quarter core check samples from representative sections of mineralized core for use as IW check samples with respect to original analytical records. Sample intervals were selected as being representative of the main style of disseminated coarse graphite mineralization present in the respective deposit areas. Samples were hosted within recrystalized / marble units and visual graphite was evident. The QP identified and marked sample intervals, and the selected samples were cut by Celine Pardis of SPE under QP supervision using the core saw available at the site. Samples were placed into a pre-numbered plastic sample bag and sealed by the QP. Each batch of check samples was supported with the inclusion of a blank sample consisting of non mineralized quartz and one CRM sample in the continuous sample number sequence.

Collected check samples were directly transported by the QP from site to the Mercator office in Dartmouth, NS, and subsequently shipped by a commercial courier service to ALS Canada Ltd. (“ALS”) preparation facility in Moncton, New Brunswick. After preparation at that facility, sample pulps were sent to the ALS in North Vancouver, BC, for analysis. Samples were prepared under the ALS rock preparation protocol PREP-31 that crushes the entire sample to better than 70% passing -2mm, then riffle split off 250g and pulverize the split to better than 85% passing. Samples were analyzed using graphitic carbon by Leco furnace (ALS method C-IR-18). Specific gravity gravimetric measurements (ALS

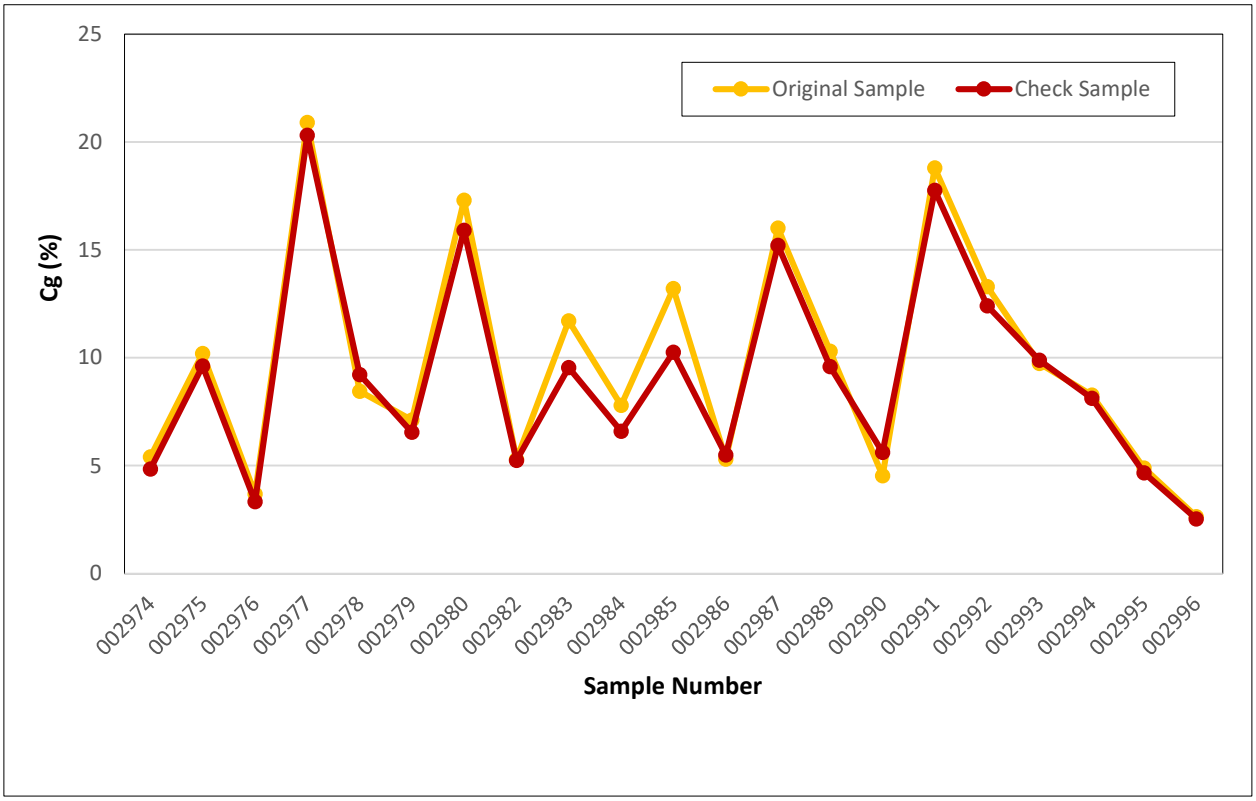
method OA-GRA08) were also completed on the samples. ALS is an independent analytical services firm registered to ISO/IEC17025 standards. ALS is fully independent of Graphano.

Assay results from the IW check samples are presented below in Table 12-1 and Figure 12-11. Database values are substantiated in all cases and results show good correlation exists between the check analysis values and the corresponding database values complied from the original assay results. An average specific gravity of 2.82, ranging from 2.7 to 2.94, was returned. This aligns well with the density value of 2.80 g/cm^3 applied for the current MRE.

Table 12-1: 2025 IW quarter core check sample results

Sample Type	Graphano Sample Results						2025 Site Visit Results	
	Hole Name	Graphano Sample ID	From (m)	To (m)	Length (m)	Cg (%)	Mercator Sample ID	Cg (%)
Core	ST23-25	1156138	17.00	18.10	1.10	5.4	002974	4.84
Core	ST23-25	1156149	36.27	37.36	1.09	10.2	002975	9.62
Core	ST23-25	1156155	44.00	45.00	1.00	3.68	002976	3.33
Core	ST23-26	1156202	86.00	87.00	1.00	20.9	002977	20.3
Core	ST23-26	1156206	90.30	91.23	0.93	8.44	002978	9.21
Core	ST23-11	1155342	36.00	37.00	1.00	7.11	002979	6.54
Core	ST23-11	1155349	43.00	44.00	1.00	17.3	002980	15.9
Blank	Quartz					0.02	002981	0.27
Coe	ST23-05	1155129	7.50	8.50	1.00	5.28	002982	5.25
Core	ST23-05	1155139	16.00	17.00	1.00	11.7	002983	9.54
Core	ST23-05	1155157	37.00	38.00	1.00	7.8	002984	6.59
Core	ST23-31	1156304	21.85	22.85	1.00	13.2	002985	10.25
Core	LB-23-59	1156404	16	17	1.00	5.3	002986	5.49
Core	LB-23-59	1156414	42.33	43	0.67	16	002987	15.2
Standard	CDN-GR-1					3.12	002988	3.14
Core	LB-23-56	1156365	71.3	72	0.70	10.3	002989	9.58
Core	LB-23-56	1156369	75.37	75.95	0.58	4.53	002990	5.62
Core	LB-24-65	930046	41.5	42.5	1.00	18.8	002991	17.75
Core	LB-24-65	930052	50.4	51.4	1.00	13.3	002992	12.4
Core	LB-24-65	930056	54.5	55.5	1.00	9.73	002993	9.89
Core	LB22-31	1153564	15	15.5	0.50	8.26	002994	8.12
Core	LB22-31	1153567	16.5	17	0.50	4.89	002995	4.66
Core	LB22-31	1153579	42	42.5	0.50	2.64	002996	2.53

Figure 12-11: Comparison of original and IW check sample results



Mercator 2025

12.5 QP Author M. Harrington's Opinion on Data Verification

The QP is of the opinion that results from the data verification program components discussed above indicate that industry standard levels of technical documentation and detail are evident in the recent exploration results for the Mineral Project. Site visit field observations show that lithological, structural, mineralogical, and other field attributes were accurately recorded and CIM Mineral Exploration Best Practice Guidelines were consistently applied for Graphano's drilling and core sampling programs. Diamond drilling completed by Graphano has substantiated results from historical drill and core sampling programs.

13.0 MINERAL PROCESSING AND METALLURGICAL TESTING

The following information summarizes the mineral processing and metallurgical testing completed to date for the Mineral Project.

13.1 Gold Port Resources Ltd.

During 2015, Gold Port Resources Ltd. completed a test program on the LAB Property. A total of 60 kg of rock samples were obtained from the Mineral Project, including graphite grab samples and country rock. The coarse rocks were received as 10 separate samples. These samples were assessed to be representative of the graphite mineralization and deposit model type on the LAB Property. Each sample was weighed and crushed to -6 mesh and submitted for head assays. Six of the graphite mineralized samples were blended to make a 42 kg Master Composite for testing. The main objective of this testing was to produce a concentrate with a graphitic carbon grade of 95% or greater. The flotation testing consisted of several stages of grinding, screening and flotation producing three concentrates at +48 mesh, +100 mesh and -100 mesh, with the overall combined concentration a sum of all three. Details are described in the following sections.

13.1.1 Head Assays

The 10 samples were assayed for graphitic carbon, C(g), and the Master Composite was assayed for C(g), total carbon, CO_2, total sulphur, whole rock analysis ("WRA") and ICP. All assays for graphite carbon were done at SGS Lakefield using the SGS combustion and IR detection by Leco instrumentation method; however, some of the high graphite samples, >90% C(g), were additionally assayed using the total ash content method (ASTM C561, Ash). A summary of the composite head assays is presented in Table 13-1. The 4 country rock samples omitted from metallurgical testing had low graphite head grades of <1.53% C(g); whereas the 6 graphite mineralized samples blended into the composite had a graphite head grade of 23.8%, 18.4%, 16.6%, 16.0%, 15.9%, and 13% Cg. The Master Composite had a head grade of 17.5% C(g).

Table 13-1 : Head assay summary – Master Composite

	Assay, %									
	S	**C(t)**	**CO_2**	**C(g)**	**SiO_2**	**Al_2O_3**	**Fe_2O_3**	**MgO**	**CaO**	**Na_2O**
	1.73	17.3	0.27	17.5	42.8	8.4	9.14	3.64	11.6	0.53
	Assay, %									
	K_2O	**TiO_2**	**P_2O_5**	**MnO**	**Cr_2O_3**	**V_2O_5**	**LOI**	**Sum**		
Master Composite	0.61	0.69	0.42	0.05	0.02	0.01	22.1	100		
	Assay, g/t									
	Ag	**As**	**Ba**	**Be**	**Bi**	**Cd**	**Co**	**Cu**	**Li**	**Mo**
	<2	<30	111	1.44	<20	<2	29	79.9	<5	<20
	Assay, g/t									
	Ni	**Pb**	**Sb**	**Se**	**Sn**	**Sr**	**Tl**	**U**	**Y**	**Zn**
	37	<20	<10	<30	<20	184	<30	<20	20.1	33

13.1.2 Head Mineralogy

13.1.2.1 Optical Microscopy

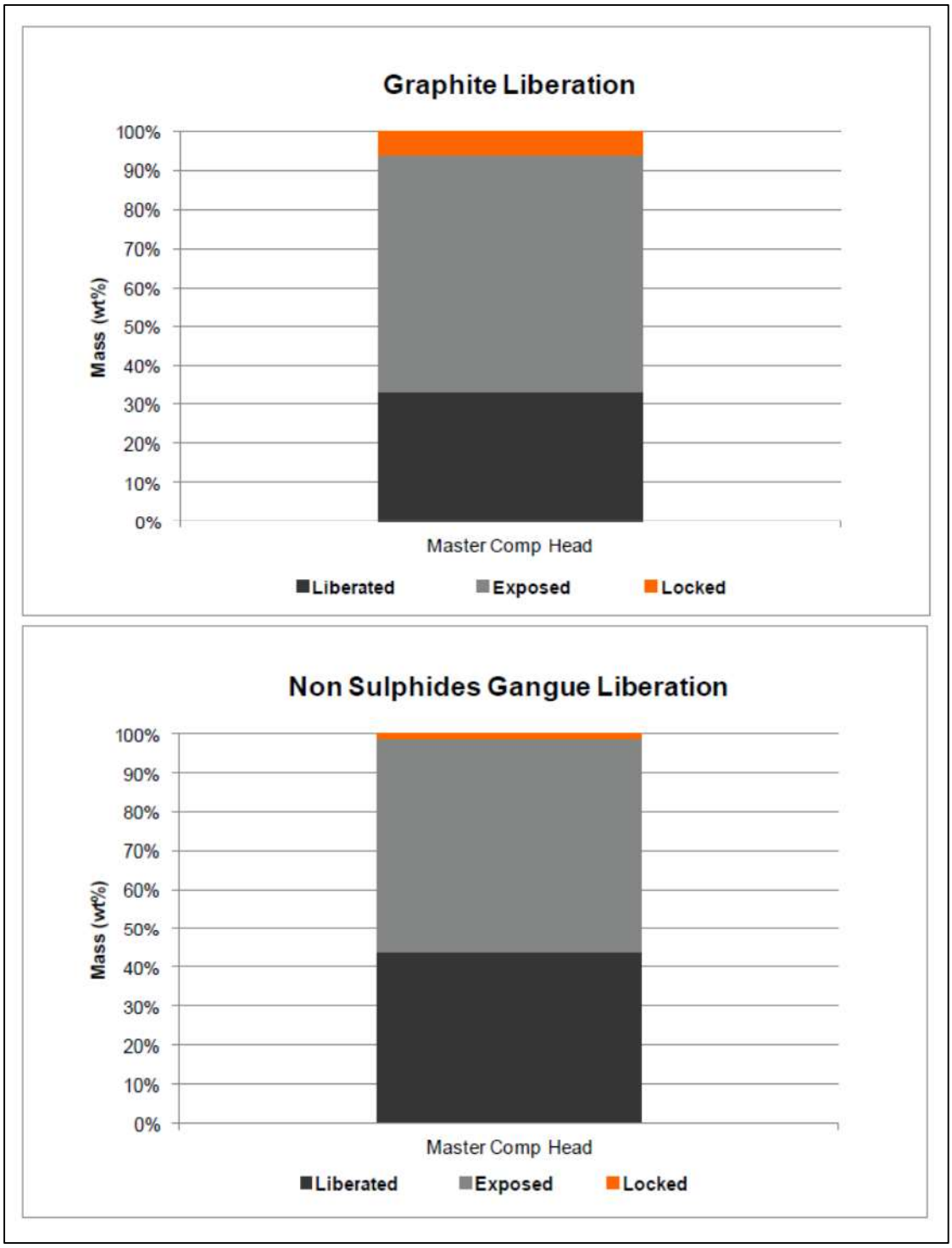
The composite sample was examined with an optical microscope at various magnifications (5X to 50X). The investigation was focussed on the evaluation of the graphite (flaky, microcrystalline, veinlets), grain size, textural descriptions, and liberation characteristics. The optical microscopy investigation indicates that:

- The graphite mainly occurs as liberated and exposed grains. Approximately ~33% of the graphite is liberated. The remaining ~61% of the graphite occurs as middling's / exposed grains with non-sulphide gangue ("NSG") and ~6% are locked within NSG minerals (Table 13-2 and Figure 13-1).
- NSG occurs as both liberated and middling's with graphite. Approximately ~44% of the NSG occurs mainly as liberated grains where ~55% are exposed and ~1% is locked (Table 13-2).
- Graphite particles range in size from <5 µm to ~2 mm and appear to be liberated at ~500 µm.
- Representative optical photomicrographs of graphite and associated gangue minerals taken in plane polarized reflected light are shown in Figure 13-2.

Table 13-2: Graphite Liberation Mass %

Sample ID	**Graphite (Mass%)**			**Non-Sulphide Gangue (Mass%)**		
Master Composite Head	**Liberated**	**Exposed**	**Locked**	**Liberated**	**Exposed**	**Locked**
	33	61	6	44	55	1

Figure 13-1: Liberation of graphite and NSG in the sample



(Graphano 2021)

Figure 13-2: Photomicrographs in Plane Polarized Reflected Light (PPRL) from Master Composite sample

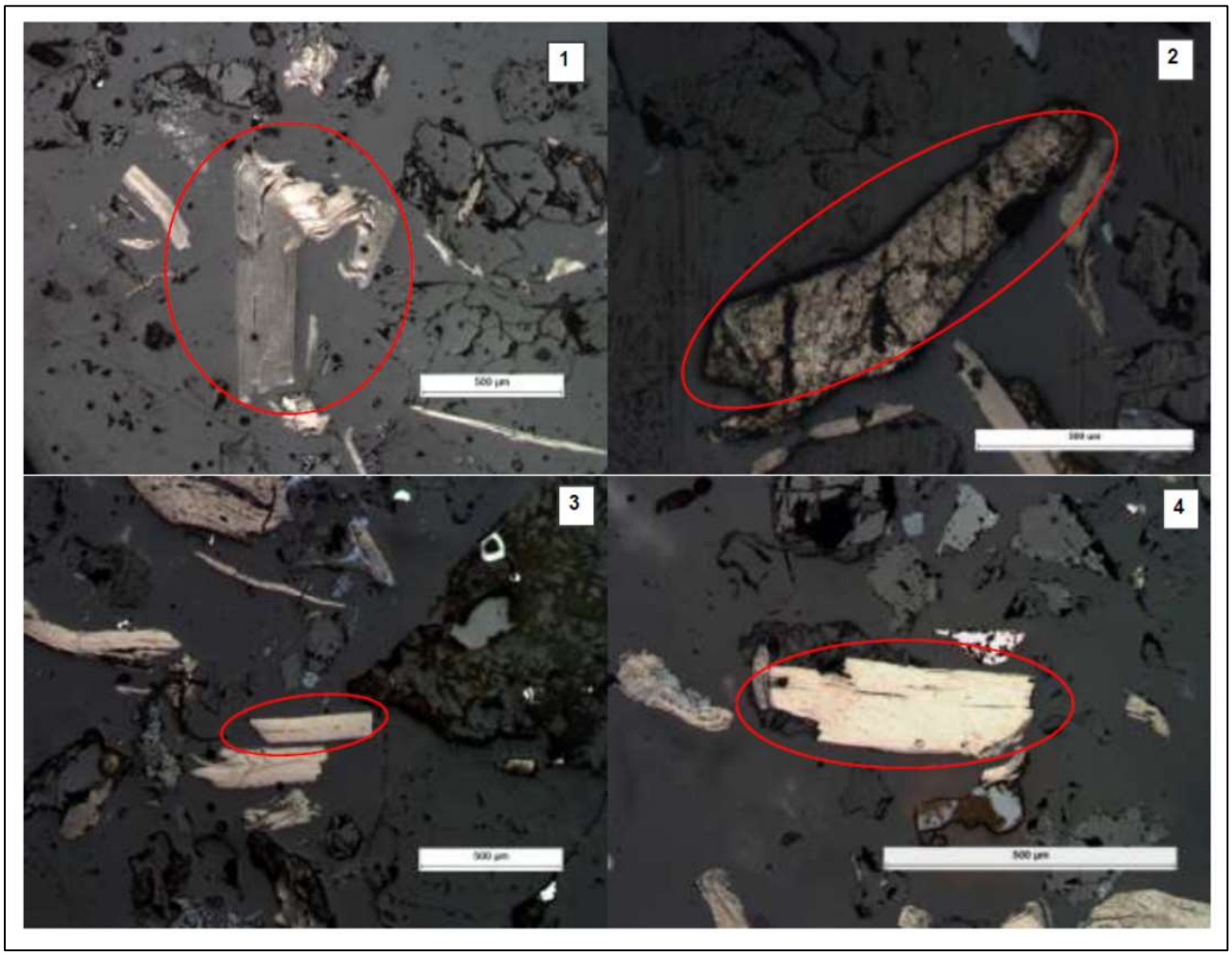


Image (1) liberated polycrystalline graphite; (2) platy graphite; (3) and (4) tabular/ prismatic graphite. (Graphano 2021)

13.1.2.2 Quantitative XRD Analysis

Mineral abundances generated by Rietveld XRD analysis was determined and reported in weight %. Identification and classification of abundance were based on relative peak heights and mineral crystalline structure (Table 13-3). The XRD helped to determine the overall modal mineralogy of the composite sample.

The XRD analysis indicated that graphite accounts for 12.9% of the sample, with 36.6% diopside, 18.8% quartz, 16.4% monzonite, with the remaining minerals <10% in abundance, including pyrite at 1.2%. Note that the total carbon in the sample is 17.3%. Given the fact that the gangue minerals do not

contain any carbon, the graphite content is probably underestimated by the XRD analysis. This can be due to sample representability and crystallinity of graphite in the sample. Note that the XRD analysis is based on the crystallinity of the minerals.

Table 13-3: Rietveld XRD Results

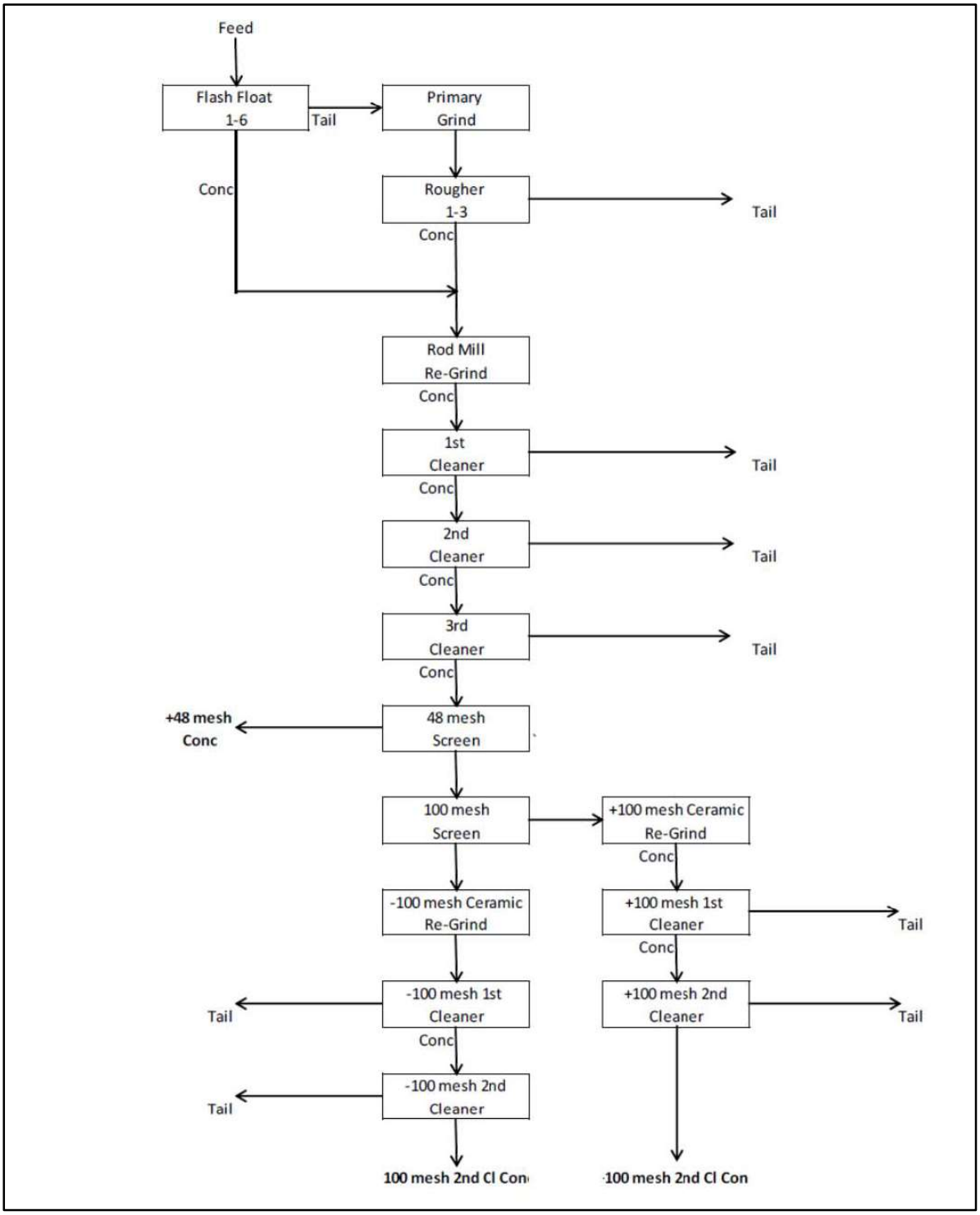
Mineral / Compound	Master Composite (JUN4523-01) (wt.%)
Quartz	18.8
Graphite	12.9
Monzonite	16.4
Diopside	36.6
Albite	5.2
Fluorapatite	1.2
Biotite	0.2
Orthoclase	2.6
Pyrite	1.2
Goethite	2.8
Grossularite	2.0
TOTAL	100

13.1.3 Metallurgical Testing

13.1.3.1 Batch Floatation

A grinding/flotation program investigated the amenability to obtain a high-grade coarse flake graphite concentrate and determine a flotation procedure to recover coarse flaked graphite (Figure 13-3). This process involved a coarse grind to maintain the integrity of coarse graphite and the flotation stage, to recover the flake graphite to a flash flotation concentrate. The flash flotation tails were reground in a rod mill to liberate the remaining graphite and recovered into a rougher flotation concentrate. Both concentrates were combined and reground in a ceramic mill to gently liberate the graphite without crushing the coarse flakes. The reground concentrate was upgraded in three cleaning stages. The cleaner concentrate was screened into three fractions: +48 mesh (300 µm) +100 mesh (150 µm) and -100 mesh. The +100 mesh and -100 mesh fractions were separately reground and upgraded in three cleaning stages. The three sized graphite concentrates, the rougher tail and each cleaner tail product was submitted for assay for Cg.

Figure 13-3: Floatation flowsheet



(Graphano 2021)

In test F1, the flash and rougher concentrate achieved 90.9% graphite recovery at 27.6% mass pull. With cleaning, the combined concentrate achieved 89.6% graphite grade at 17.6% mass pull. The +48 mesh, +100 mesh and -100 mesh cleaners performed well producing concentrates at a grade of 95% C(g) in the +100 mesh fractions and 86% C(g) in the -100 mesh. In test F2 a finer primary grind (Rougher Tails K80 = 401 µm) was used to liberate more of the graphite and lower the rougher tailings graphite grade from 2.3% to 1.1% C(g). This resulted in a higher combined flash and rougher concentrate recovery of 95.8% and a higher combined concentrate recovery of 95.2%. Unfortunately, no improvements in grade were observed. The +48 mesh and +100 mesh concentrates maintained ~95% C(g) and the -100-mesh declined to 81.2% C(g). The improved recovery was a result of higher mass recovery. The +48 mesh, +100 mesh and -100 mesh concentrates had similar particle size distributions, suggesting that the regrind sizes used in the cleaner circuit were the same for both tests (Figure 13-4). Mineralogical data has suggested that gangue minerals are still attached to the liberated and exposed particles, even at grain sizes greater than 500 µm. The floatation test results are summarized in Table 13-4.

Table 13-4: Floatation Test Results

Test No.	Product	K_{80} µm	Weight %	Grade C(g) %	Recovery C(g) %
F1	+48 mesh conc	592	5.8	94.7	30.7
	+100 mesh 2nd Clnr Conc	246	4.1	95.3	21.7
	-100 mesh 2nd Clnr Conc	87	7.7	86.0	37.2
	Combined Concentrate	-	17.6	91.0	89.6
	3rd Clnr Conc	-	19.2	84.0	90.0
	2nd Clnr Conc	-	19.8	81.6	90.2
	1st Clnr Conc	-	21.3	75.9	90.4
	Flash & Rougher Conc	-	27.6	58.9	90.9
	Rougher Tails	534	72.4	2.3	9.1
	Feed (Calc.)	-	100.0	17.9	100.0
	Feed (direct)	-	-	17.5	-
F2	+48 mesh conc	590	5.5	95.3	29.7
	+100 mesh 2nd Clnr Conc	240	4.5	94.0	24.2
	-100 mesh 2nd Clnr Conc	87	8.9	81.2	41.4
	Combined Concentrate	-	18.9	88.3	95.2
	3rd Clnr Conc	-	19.7	85.1	95.4
	2nd Clnr Conc	-	20.5	81.7	95.5
	1st Clnr Conc	-	22.5	74.6	95.6
	Flash & Rougher Conc	-	29.8	56.3	95.8

	Rougher Tails	401	70.2	1.1	4.2
	Feed (Calc.)	-	100.0	17.5	100.0
	Feed (direct)	-	-	17.5	-

Figure 13-4: Photograph of +48 mesh (left), +100 mesh (centre) and -100 mesh concentrates

(Graphano 2021)

13.1.3.2 Size by Size Analysis

A subsample from each of the three sized graphite concentrates was forwarded for screening to determine particle size distribution and size by size assay for C(g). Table 13-5 displays the size by size assays of each concentrate produced from the tests. In both tests the sized fractions of the +48 mesh and +100 mesh cleaner concentrates had good graphite grades of 92 – 95% C(g), with higher impurities showing up in fractions of insignificant mass. In both tests, the sized fractions of the -100 mesh cleaner concentrate showed a decrease in grade with size reduction, with the +150 mesh particles containing the highest grade and -400 mesh particles containing the lowest grade. Impurities were to be highest in the finest fraction, and appear to be more prominent in test F2, where finer material was collected from the rougher circuit.

It appeared that a finer primary grind size was responsible for recovering more of the fine locked graphite, but that the cleaning circuit was unable to reject impurities, likely because the exposed fine graphite particles are not fully liberated from gangue.

It was recommended by the labs to conduct testing at a finer regrind sizes (cleaner circuit) to improve grade. Mineralogical results reveal that coarse graphite flakes would be generally liberated at K80 ~500 µm, so the combined flash and rougher concentrate should be ground finer to achieve K80 of 450 - 500 µm in +48 mesh concentrate. The +100-mesh concentrate could possibly benefit from a finer grind.

Subsequent to the above test work, a finer grind was employed. The ~141 g feed material was reground several times and wet screened whole to estimate grind size. Final regrind & size was ~74% passing 35 Mesh Screen (500 µm) before flotation. Results of the combined cleaner concentrate returned a grade of 96.2% C(g) at 99.8% graphite recovery. Sized at +48, +65 and +100 mesh. >96.7% C(g) was returned for flakes larger than 65 mesh, and 1.7% of the mass was rejected with a grade of 9.2% C(g).

With the results of the additional testing, hydrometallurgical purification by alkaline leaching followed by acid washing is recommended to achieve high purity.

Table 13-5: Concentrate Grade by Size Analysis

Product	F1		F2	
	Mass %	Grade % C(g)	Mass %	Grade % C(g)
	+48 Mesh			
+28 mesh	15.7	94.4	14.8	92.7
+35 mesh	28.9	95.0	26.1	94.8
+48 mesh	23.6	94.3	32.1	95.0
+65 mesh	30.6	94.4	25.4	94.1
-65 mesh	1.30	81.8	1.52	92.8
Head (calc.)	100.0	94.4	100.0	94.3
Head (direct)		94.7		95.3
	+100 Mesh			
+48 mesh	0.98	67.7	0.27	81.9
+65 mesh	30.8	96.0	28.1	94.9
+100 mesh	44.2	95.9	50.7	95.5
-100 mesh	24.0	92.9	20.9	94.0
Head (calc.)	100.0	94.9	100.0	95.0
Head (direct)		95.3		94.0
	-100 Mesh			
+150 mesh	11.0	93.8	8.53	90.6
+200 mesh	15.1	93.6	17.9	88.7
+270 mesh	17.9	92.0	31.8	83.2
+400 mesh	27.1	87.3	28.2	78.9
-400 mesh	28.9	74.5	13.6	67.7
Head (calc.)	100.0	86.1	100.0	81.5
Head (direct)		86.0		81.2

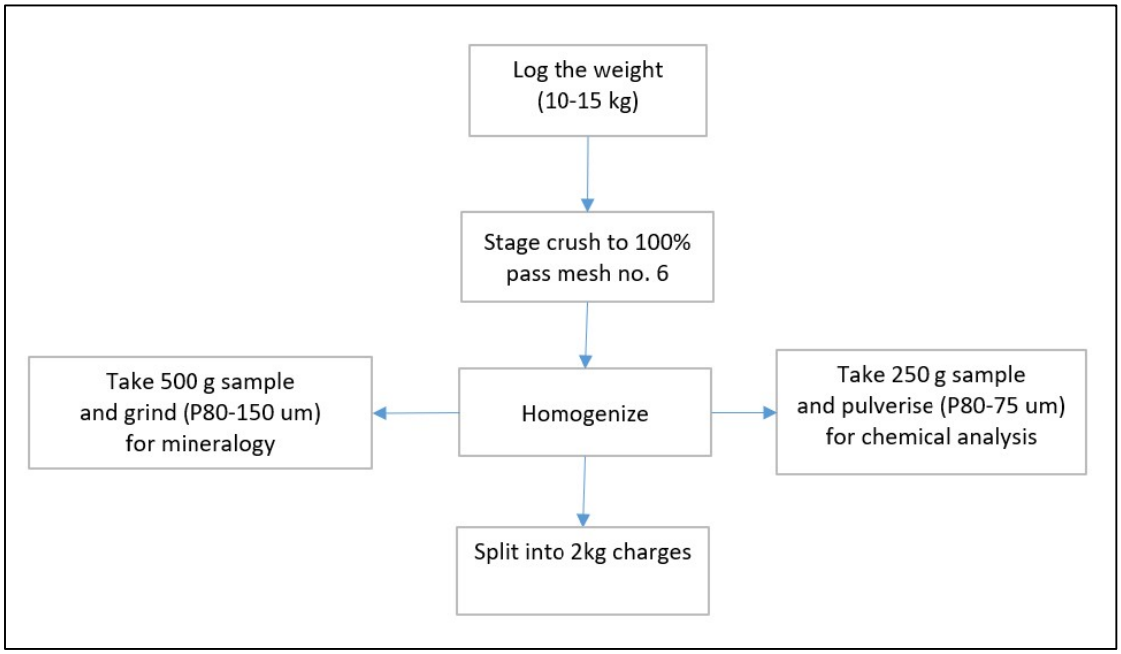
13.2 Graphano

Graphano initiated a test program in November 2023 to evaluate the amenability of processing graphite material from different zones containing ~5.45 - 7.00% graphite to produce saleable products of graphite using flotation. Testwork was completed by SGS and included sample characterization including chemical and mineralogical analyses as well as flotation tests. Four samples representing four different zones totaling 60 kg were obtained from the LAB and Standard properties and shipped to SGS. The samples were prepared according to Figure 13-5 and a summary of the composite head samples is provided in Table 13-6. Details of the test work program are described in the following sections.

Table 13-6: Head Assay Summary

Sample Code	Zone Info	Head Grade (%)				Final Grade	Recovery
		C(t) %	C(g) %	TIC %	TOC %	C(g) %	%
1	LB22-30 LB 18-03	12.1	6.89	4.94	7.20	74.9	94.0
2	LB22-32 LB22-46 LB22-48	9.14	7.00	1.97	7.17	72.9	81.5
3	LB22-18 LB22-23 LB22-26	8.60	5.45	3.06	5.53	60.0	83.2
4	ST23-08 ST23-09 ST23-10	9.47	6.06	3.48	5.99	93.7	92.5

Figure 13-5: Sample Preparation Flowsheet



(SGS 2024)

13.2.1 Head Characterization

13.2.1.1 Chemical Analyses

A subsample from each zone was submitted for chemical analysis, the results of which are listed in Table 13-7. The 4 samples have between 5.45% to 7.00% graphitic carbon and 1.97% to 4.94% of inorganic carbon. The major impurities derived from silicates (25.5-44.9%) and calcite (13.5-0.3%). The ICP scan showed that besides the major oxides, strontium at 199-455 g/t and barium at 180-341 g/t are the most abundant elements in this composite.

Table 13-7 Head Assay Details

Major Constituents (%)					ICP scan (g/t)				
Analyte	Sample Code				Analyte	Sample Code			
	1	2	3	4		1	2	3	4
SiO_2	25.5	44.9	34.0	33.7	Ag	<2	<2	<2	<2
Al_2O_3	5.13	9.03	7.97	6.86	As	77	<30	<30	<30
Fe_2O_3	5.95	7.33	8.99	7.69	Ba	341	335	219	180
MgO	3.44	2.79	3.61	3.21	Be	0.96	1.22	1	1.58
CaO	30.3	13.5	22.6	24.2	Bi	<20	<20	<20	<20
Na_2O	0.33	1.02	0.3	0.66	Cd	<2	<2	<2	<2
K_2O	1.74	3.11	2.28	1.51	Co	17	21	28	21
TiO_2	0.42	0.61	0.59	0.47	Cu	37	78	63	58
P_2O_5	0.34	0.25	0.25	0.26	Li	<30	<30	<30	<30
MnO	0.08	0.06	0.08	0.10	Mo	<5	5	7	5
Cr_2O_3	0.01	0.02	<0.01	0.02	Ni	28	35	45	31
V_2O_5	<0.01	0.02	0.02	<0.01	Pb	<20	<20	<20	<20
LOI	22.0	11.9	13.1	15.3	Sb	<10	<10	<10	<10
Sum	95.3	94.5	93.8	94.0	Se	<30	<30	<30	<30
S	1.90	2.31	2.46	2.23	Sn	<20	<20	<20	<20
C(t)	12.1	9.14	8.6	9.47	Sr	455	236	238	199
C(g)	6.89	7.00	5.45	6.06	Tl	<30	<30	<30	<30
TIC	4.94	1.97	3.06	3.48	Y	15.2	16.5	19.1	18.3
TOC	7.20	7.17	5.53	5.99	Zn	25	41	33	41

13.2.2 Mineralogical Analysis

A subsample of each zone was analyzed through optical microscopy, TIMA-X (TESCAN Integrated Mineral Analyzer), and X-ray diffraction (XRD) to have a better understanding of the mineralogical characteristics of each sample. The results of these analyses are summarized in the following sections.

13.2.2.1 Gangue Composition

Semi-Quantitative XRD analysis indicates that graphite ranges from 4.8% to 6.8%. Calcite (18.9-39.4%), diopside (9.4-15.9%), quartz (5.2-22.2%), orthoclase (6-10.2%) and meionite (4.2-11.1%) are the main gangue materials in 4 samples. Sulphur exists in elemental sulphur (0.8-1.1%), pyrite (0.6-1.6% except sample 1), and pyrrhotite state (1.7-2.7%). The results of the XRD analysis are provided in Table 13-8

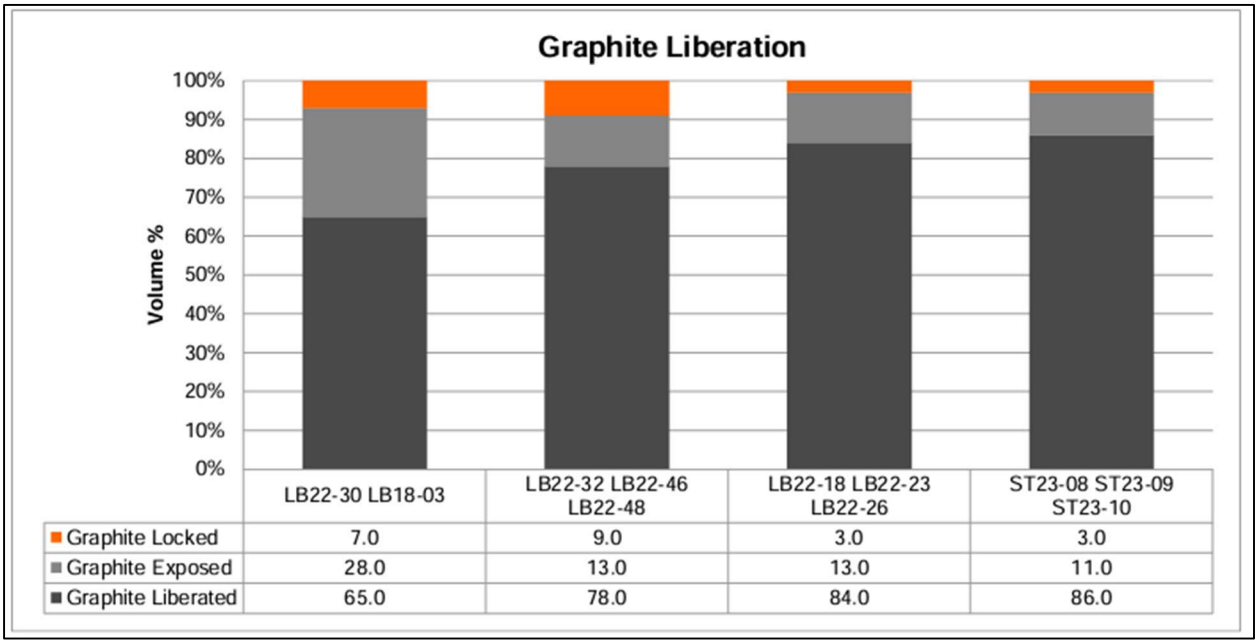
Table 13-8: Semi-Quantitative XRD Results

Mineral	Grade (Wt%)			
	Sample Code			
	1	2	3	4
Calcite	39.4	18.9	28.1	28.9
Quartz	5.4	22.2	13.1	13.6
Diopside	15.9	9.4	13.6	14.6
Orthoclase	8.4	10.2	6	6.4
Meionite	6.6	4.2	8.1	11.1
Graphite	6.8	6.7	4.8	5.9
Clinochlore	3.7	4.9	5.9	3.7
Albite	1.5	8.2	1.2	3.5
Biotite	3.8	2.8	3.3	3.5
Muscovite	-	6.3	5.5	-
Epidote	2.8	-	2.9	2.6
Pyrrhotite	1.7	2	2.7	1.8
Sulfur	1.1	0.8	1.1	1
Magnetite	1	0.8	1	1.1
Pyrite	-	1.6	0.6	0.9
Rutile	0.4	0.6	0.6	0.5
Actinolite	-	-	1.6	-
Cristobalite	0.7	0.5	-	-
Gypsum	0.9	-	-	-
Hematite	-	-	-	0.9
TOTAL	100	100	100	100

13.2.2.2 Optical Microscopy

The optical microscopy showed that in all 4 samples, coarse graphite flakes occur as free particles, but also disseminated in gangue minerals, and mostly finely interlayered with the non-sulphide gangue minerals. Approximately 65%, 78%, 84%, and 86% of the graphite is liberated, in samples 1, 2, 3, and 4, respectively. The remaining 28%, 13%, 13%, and 11% of the graphite occurs as middlings with NSG minerals, and 7%, 9%, 3%, and 3% are locked in samples 1, 2, 3, and 4, respectively (Figure 13-6). Terminology used Liberated >=80%; Exposed <80 & >0%; and Locked = 0%. Graphite grains show two dominant grain sizes: coarse grains ranging from 50 µm to ~500 µm in length, and fine grains ranging from <10 µm to ~50 µm.

Figure 13-6: Graphite Liberation



(SGS 2024)

13.2.3 Beneficiation Testing

Two batch tests (total of 8 for 4 samples) were performed to evaluate direct flotation of graphite. After crushing the ore to 100% passing 3.35 mm (6 mesh), the samples were subjected to flotation. In cleaner tests, a regrind was performed to liberate graphite from the gangue. The test conditions are summarized in Table 13-9, and the results are summarized in Table 13-10. Figure 13-7 shows a proposed preliminary graphite concentration flowsheet.

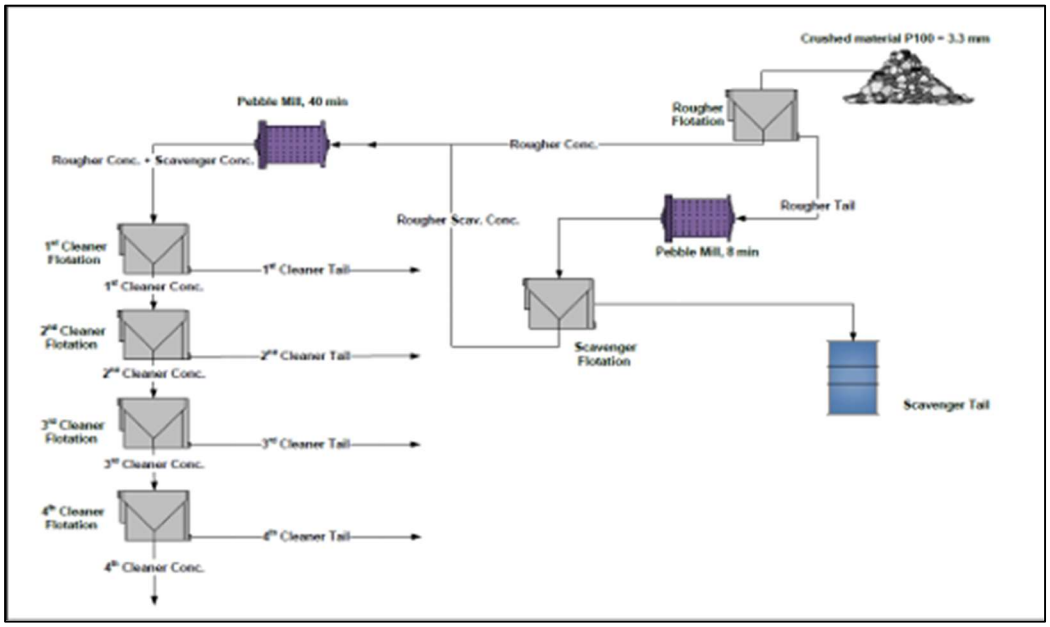
Table 13-9: Flotation Test Conditions

Test #	Configuration	Grind size	Grinding before scavenger	Grinding before cleaner	pH	Reagent (g/Ton)	
						Diesel	MIBC*
F1	One Flash rougher, one Scavenger and one Cleaner stage	3.35 mm	5 min	30 min	8.3	60	60
F2	One Flash rougher, one Scavenger and four Cleaner stages	3.35 mm	8 min	40 min	8.3	110	110
* MIBC: Methyl Isobutyl Carbinol							

Table 13-10: Graphite Flotation Test Results

Test #	Objective	Sample 1		Sample 2		Sample 3		Sample 4	
		Cg Grade (%)	Recovery (%)	Cg Grade (%)	Recovery (%)	Cg Grade (%)	Recovery (%)	Cg Grade (%)	Recovery (%)
F1	Graphite flotation	47.6	53.1	63.2	71.8	81.6	81.8	86.1	77.4
F2	Graphite upgrading	74.9	94.0	72.9	81.5	60	83.2	93.7	92.5

Figure 13-7: Preliminary graphite floatation flowsheet



(SGS 2024)

Test F1 attempted to float graphite and analyze the graphite content in different size fractions of the concentrate. The results confirmed the observation of the mineralogy for existing 2 dominant grain sizes of graphite coarse grains ranging from 50 µm to ~500 µm in length and fine grains ranging from µm to ~50 µm. Therefore, it is necessary to regrind the samples after rougher flotation to achieve high grades.

For Test F2, the dosage of collector/frother, the collection times, the regrind time, and the number of cleaner stages were increased to improve the grade and recovery of final graphite concentrate. This strategy worked for samples 1, 2, and 4 and increased both grade and recovery but for sample 3, the grade was reduced (from 81.6 to 60.0%) and the recovery improved slightly (from 81.8 to 83.2%). Apparently, some of the gangue materials in sample 3 have been floated along with graphite and reduced the final grade. Sample 4 exhibited the best results with 93.7% grade and 92.5% recovery.

14.0 MINERAL RESOURCE ESTIMATES

14.1 Introduction

The definition of Mineral Resource and associated Mineral Resource categories used in this Technical Report are those recognized under NI 43-101 and set out in the CIM Definition Standards. Assumptions, threshold parameters, and deposit modeling methodology associated with the MRE are discussed below in Sections 14.2 through 14.8.

The Lac Saguay Graphite Project ("Mineral Project") Mineral Resource Estimate ("MRE") is comprised of the Lac-Aux-Bouleaux ("LAB") and Standard deposits. Each deposit possesses its own characteristics and were therefore modelled and estimated individually. To make the text more concise, certain subsections will address both deposits simultaneously, when possible.

14.2 Geological Interpretation Used in Resource Estimation

The Mineral Project is classified as a crystalline flake graphite deposit of syngenetic origin. Large flake graphite mineralization is hosted in a strongly folded recrystalized limestone - marble unit as part of a predominantly paragneiss and quartzite sequence. Internal waste units of paragneiss / quartzite and intrusive rocks have been identified within the carbonate unit. Paragneiss sequences are also graphitic but generally at sub-economic concentrations.

Ductile deformation of the recrystalized limestone - marble is thought to result in repetition of the mineralized horizons with enrichment of graphite mineralization in fold noses. This deformation also results in boudinage structures and thereby influencing depth and continuity at which graphitic mineralization occurs. The sequence also underwent several phases of brittle deformation that are primarily defined as a set of north-south normal faults dipping to the west and a second set of sinistral east-west faults. Faulting can disrupt continuity of mineralization both locally and regionally.

14.3 Methodology of Resource Estimation

14.3.1 Mineral Project Drill Hole Database

On January 24, 2024, Mercator received the final data files for the Graphano 2023 – 2024 drill program. A Mineral Project drill hole database was developed in Microsoft Access. The database includes information such as collar locations, downhole surveys, assays, lithology, and density measurements. The database is coordinated in UTM NAD83 Zone 18N. In addition to the database validation procedures outlined in Section 12, the QP imported the complete database into Seequent Leapfrog Edge v2025.1.1 ("Leapfrog") software and implemented validation routines that detect specific data entry logical errors associated with sample records, drill hole lithocode intervals, collar tables and down hole survey tables.

The Mineral Project drill hole database consists of 157 drill holes for 12,016.98 m for the LAB Property, with 2,308 core samples for 2,200.01 m of sampled core, and 33 drill holes for 3,148.52 m for the Standard Property, with 877 core samples for 836.48 m of sampled core. The LAB deposit MRE includes the Pit Zone, Zone 1 and Zone 3 and is based on 49 drill holes for 3,963 m completed by Graphano and 86 drill holes for 6,199 m completed by previous operators. The Standard deposit MRE is based on the full Standard Property drill hole dataset.

Included un-sampled intervals for drill holes were assigned "0" grade (zero %) for graphitic carbon. Such intervals were assigned a sample identification attribute in the drilling database of MGS_NS (Mercator Geological Services No Sample).

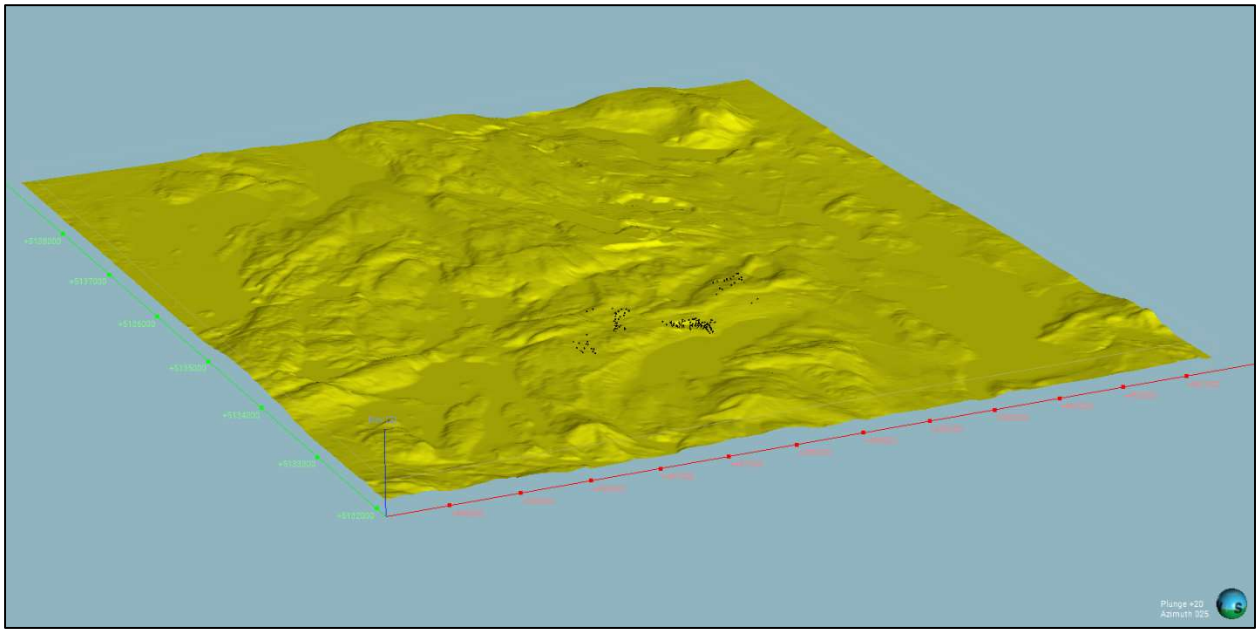
Channel samples were compiled and plotted based on their field coordinates. Channel samples were used for both geological and grade interpretations but were not included in the actual estimate.

14.3.2 Surface, Lithological, and Domain Modelling

14.3.2.1 Topography

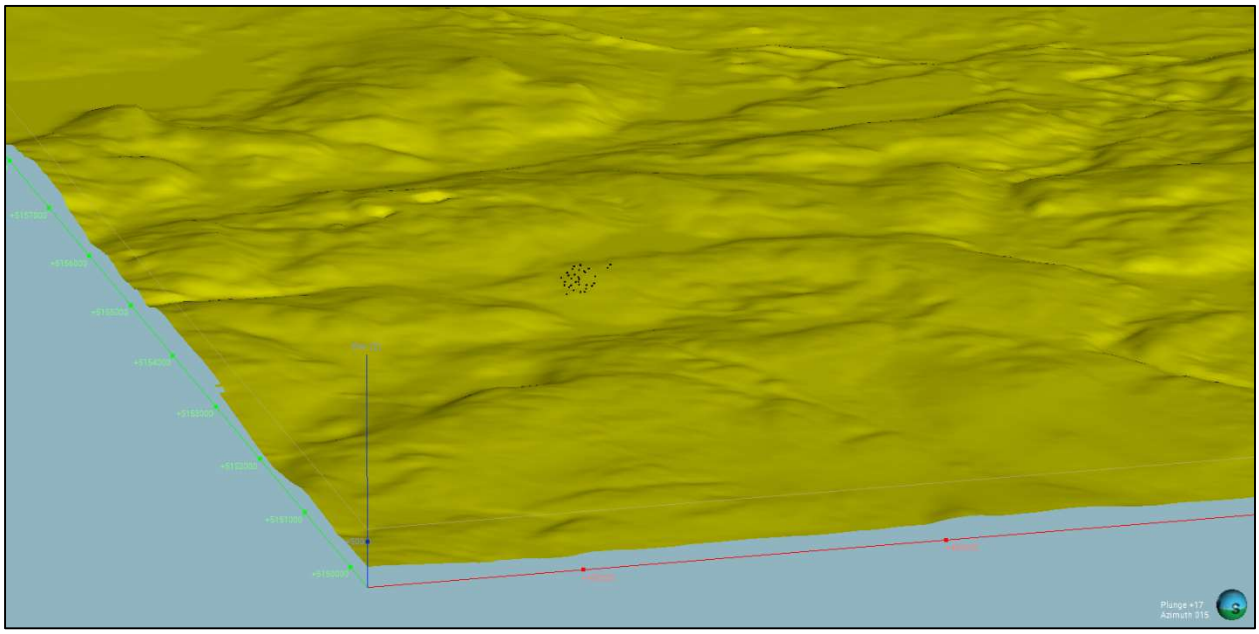
A digital terrain model ("DTM") of topography was developed by Mercator staff for each deposit. These were based on DEMs that were acquired from MNRF. Resolution of the DTMs are approximately 10 m at LAB and 25 m at Standard (Figures 14-1 and 14-2). Where applicable, the DTMs are applied as the top surface constraint. In the area of the historical Orrwell pit the DTM was projected to the estimated depth of mining.

Figure 14-1: Isometric view to the northeast of the LAB DTM



(Mercator, 2025)

Figure 14-2: Isometric view to the northeast of the Standard DTM

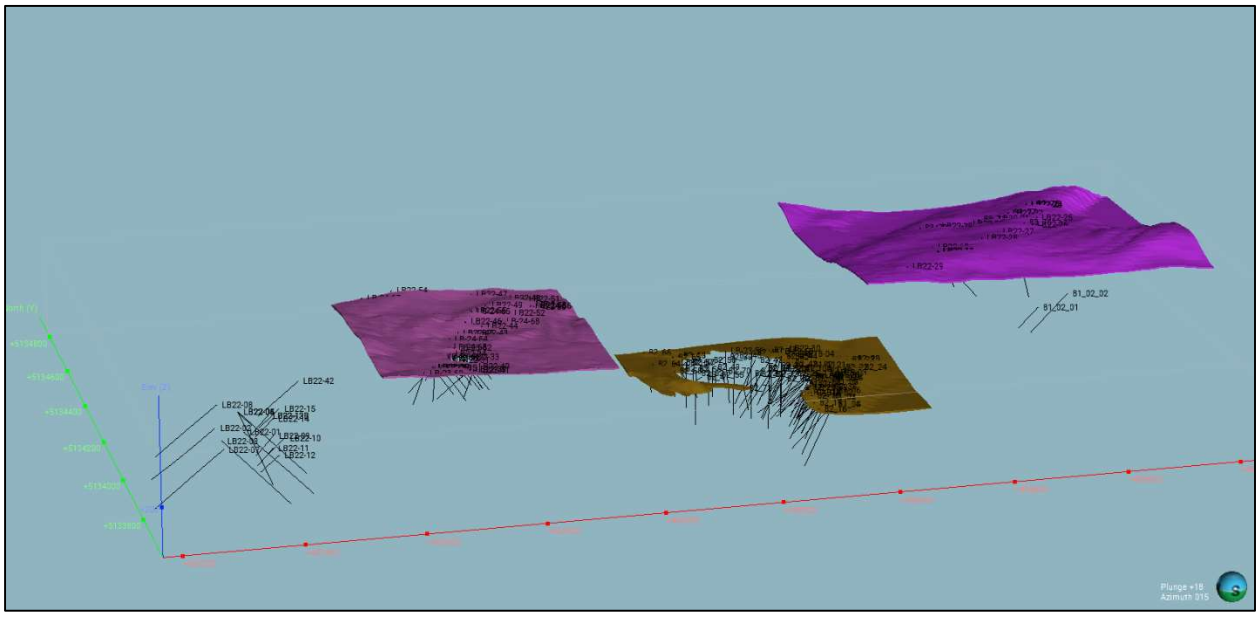


(Mercator 2025)

14.3.2.2 Overburden

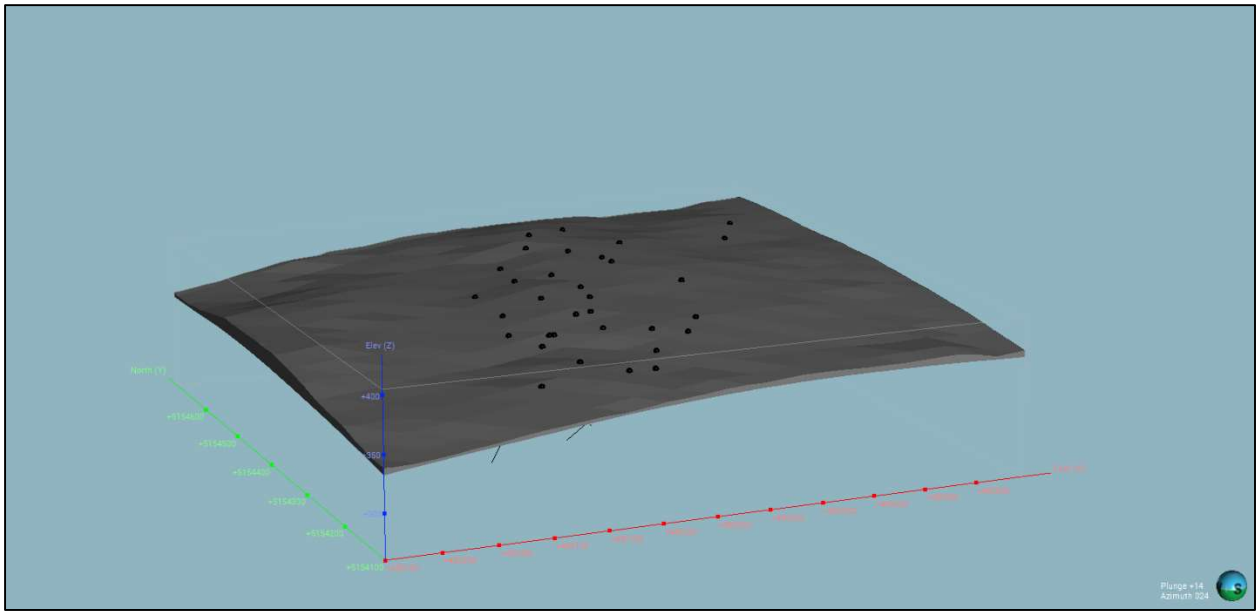
Overburden volume was modelled over each of the deposit areas as an erosional unit. Overburden is generally shallow and usually less than a few meters deep, however, it can be up to 10 m thick locally. For most areas, logged codes for overburden depth were correlated on section in conjunction with the topographic relief to form a depth to bedrock surface and overburden volume. At Zone 1, due to wider spaced drilling and little variability in logged overburden depth, an average thickness of 3 m was projected from the DTM to define the overburden volume. Grade Domain models were constrained to the top of bedrock surface where appropriate. Overburden models are presented in Figures 14-3 and 14-4.

Figure 14-3: Isometric view to the northeast of the LAB overburden models



(Mercator 2025)

Figure 14-4: Isometric view to the northeast of the Standard overburden model



(Mercator 2025)

14.3.3 Lithological and Grade Domain Solid Models

A conceptual lithological model was developed based on the geological logging of diamond drill holes and trenches. The lithological model reflects a simplified grouping of recrystalized limestone, quartzite, and paragneiss and was used to help identify folding, faulting, and potential repetitions of the mineralized horizon. This simplified model was also used to ensure graphitic carbonate units were not correlated with locally graphitic paragneiss.

A graphitic carbon cut-off grade of 4% over 3 m downhole was used to define the mineralized domains. A few intercepts were accepted below that grade and/or length support for continuity purposes. Intercepts defined at LAB average 4.76 m in length ranging between 1.67 and 24.08 m. Intercepts defined at Standard average 5.98 m and range between 2.75 to 20.27 m. The outer contact points of each intercept were used to generate hanging wall and footwall surface meshes, and the meshes were subsequently used to develop domain models for each unit. The developed domain models were reviewed on a sectional basis, validated, and subject to a query-based drill hole snap check to ensure integrity.

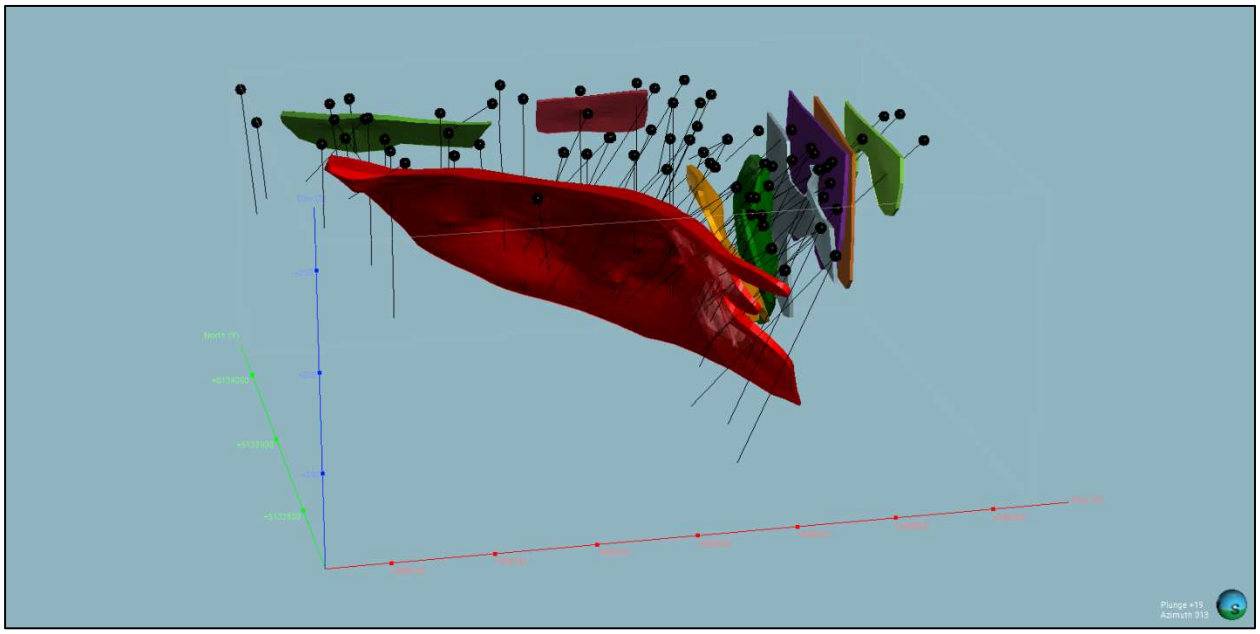
LAB Pit Zone domain models were projected along strike and dip by half the distance to the nearest drill hole, to an interpreted bounding surface, or, where a constraining drill hole was not present, 50 m for the main horizon and 25 m for the footwall horizons. The LAB Pit Zone reflects a broad antiform structure, with one limb striking north and dipping moderately to steeply to the east and another limb striking west and dipping moderately to steeply to the north. A total of 9 mineralization domains were modelled (Figure 14-5).

LAB Zone 3 domain models were projected along strike and dip by half the distance to the nearest drill hole, to an interpreted bounding surface, or 50 m where a constraining drill hole was not present. Domains were extended to surface, along the west limb, and through an interpreted hinge zone beyond the 50 m threshold where continuity is inferred to be present. LAB Zone 3 reflects a broad synform structure with a hinge line trending northeast-southwest and shallow to steeply dipping limbs. Within these broad folded structures individual units may be isoclinally folded. A total of 9 mineralization domains were modelled (Figure 14-6).

LAB Zone 1 domain models were projected along strike and dip by half the distance to the nearest drill hole, to an interpreted bounding surface, or 50 m where a constraining drill hole was not present. Zone 1 is comprised of two discrete graphitic horizons that orient north-south and steeply dip to the west that may be sub-parallel limbs of a fold or a displaced horizon from faulting. A total of 2 mineralization domains were modelled (Figure 14-7).

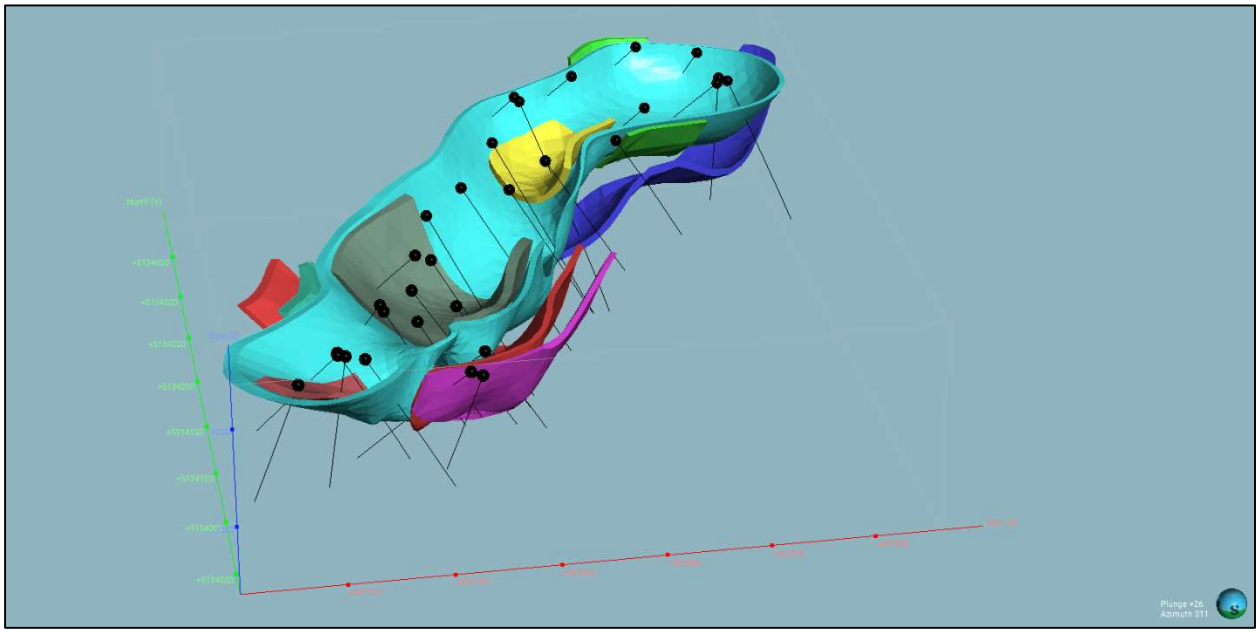
The LAB deposit domain models are presented together in Figure 14-8.

Figure 14-5: Isometric view to the northeast of the LAB Pit Zone mineralized domains



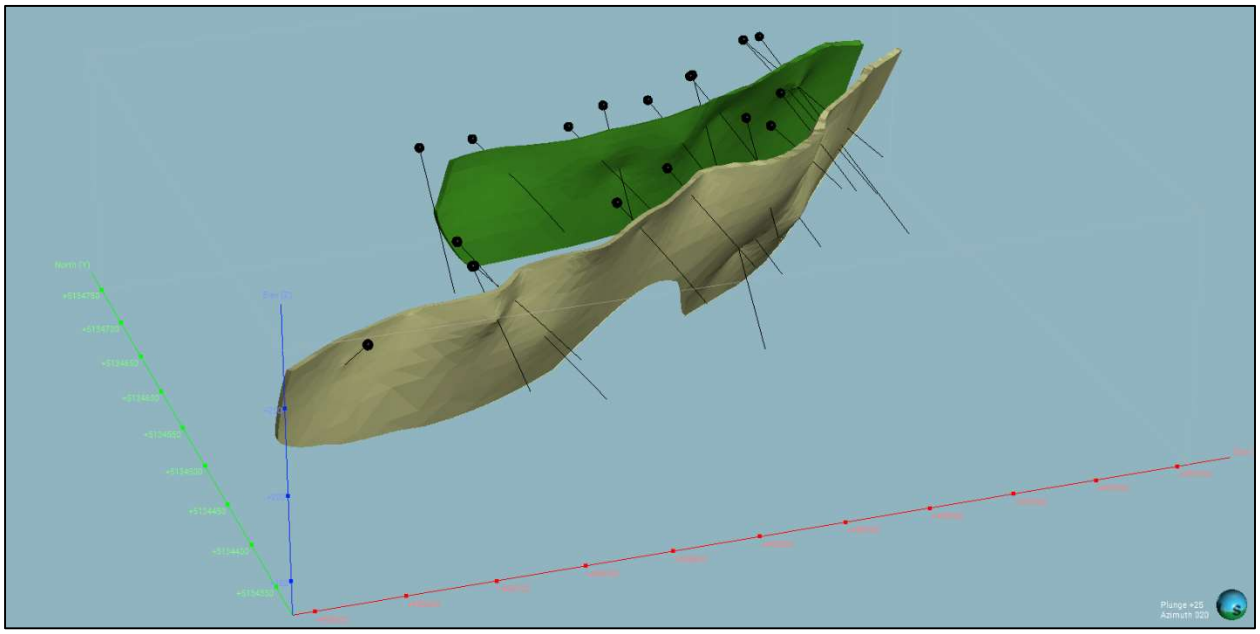
(Mercator 2025)

Figure 14-6: Isometric view to the northeast of the LAB Zone 3 mineralized domains



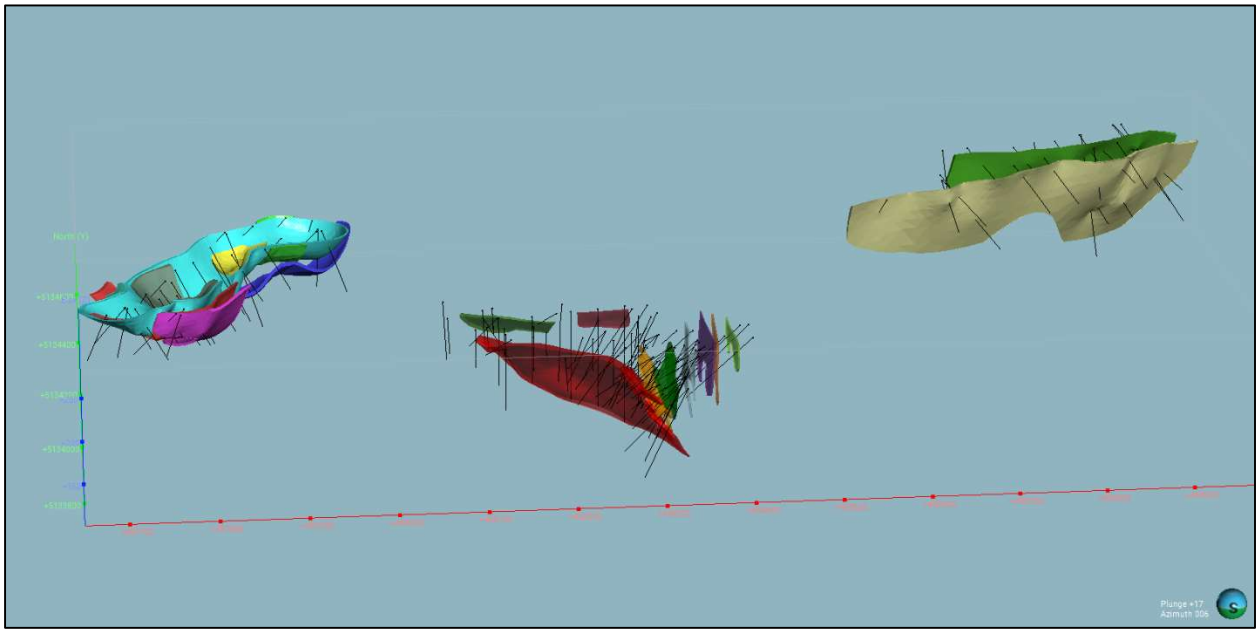
(Mercator 2025)

Figure 14-7: Isometric view to the northeast of the LAB Zone 1 mineralized domains



(Mercator 2025)

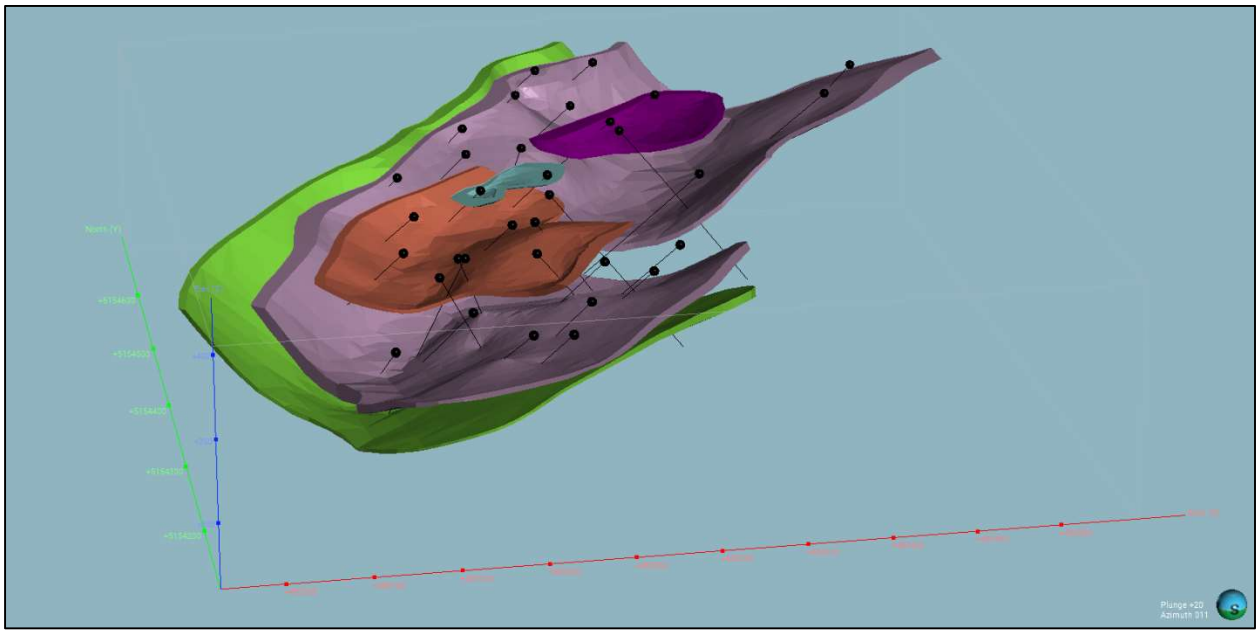
Figure 14-8: Isometric view to the northeast of the LAB deposit mineralized domains



(Mercator 2025)

Standard domain models were projected along strike and down dip by half the distance to the nearest drill hole, to a bounding interpreted surface, or by 75 m where a constraining drill hole was not present. Domains were extended to surface and through an interpreted hinge zone beyond the 75 m threshold where continuity is inferred to be present. Standard has been interpreted as a broad synform with moderate to shallow dips. A total of 5 mineralized domains were modelled (Figure 14-9).

Figure 14-9: Isometric view to the Northeast of the Standard mineralized domains



(Mercator 2025)

14.3.4 Drill Hole Assays and Downhole Composites

Compositing was completed independently using the respective interval table that defines each grade domain.

Assay sample length statistics for the 3 modelled zones at LAB showed a mean sample length of 1.17 m, a minimum length of 0.09 m, and a maximum length of 17.9 m. Several anomalously long sample lengths are present in the Orrwell assay dataset and these were considered during deposit modelling. Assay sample length statistics for Standard showed a mean sample length of 0.95 m, a minimum length of 0.30 m, and a maximum length of 2.3 m.

Downhole assay composites measuring 1.5 m in length and constrained to the drill hole intercepts for each domain were created for Cg %. Residual lengths were distributed equally over the composited interval. Unsampled lengths within composited intervals were set at 0% Cg. Assay composite descriptive statistics are presented in Table 14-1.

Table 14-1: Statistics for the 1.5m downhole assay composites

Zone	Domain	Count	Length	Mean	SD	CV	Variance	Min	Q1	Q2	Q3	Max
Pit Zone		**404**	**594.05**	**6.42**	**4.08**	**0.64**	**16.64**	**0.00**	**2.91**	**6.41**	**9.32**	**16.41**
	PZ O1	248	365.79	7.91	3.44	0.43	11.82	0.00	5.63	7.73	10.01	16.41
	PZ O2	64	93.17	5.19	4.93	0.95	24.35	0.00	0.96	2.92	8.68	15.65
	PZ O3	36	52.12	2.96	2.53	0.85	6.38	0.00	1.05	2.38	3.98	9.25
	PZ O4	7	10.27	3.67	2.05	0.56	4.22	0.42	2.41	4.14	5.15	6.74
	PZ O5	12	17.49	5.55	1.97	0.35	3.87	2.91	3.98	5.06	6.64	8.74
	PZ O6	23	34.65	2.86	3.39	1.19	11.50	0.00	0.00	1.80	3.69	11.72
	PZ O7	6	8.50	2.51	2.08	0.83	4.34	0.00	1.42	2.11	3.10	6.20
	PZ O8	4	6.00	1.53	1.37	0.89	1.87	0.00	0.00	0.87	2.17	3.09
	PZ O9	4	6.05	3.67	3.07	0.84	9.42	0.52	0.52	1.55	6.30	6.30
Zone 1		**77**	**116.32**	**5.26**	**2.54**	**0.48**	**6.43**	**0.06**	**3.40**	**5.18**	**7.42**	**14.48**
	Z1 G1	26	41.49	5.11	2.58	0.51	6.68	0.06	3.27	5.18	7.61	8.72
	Z1 G2	51	74.83	5.35	2.53	0.47	6.41	0.85	3.67	5.16	7.31	14.48
Zone 3		**133**	**198.39**	**6.21**	**4.20**	**0.68**	**17.61**	**0.50**	**2.82**	**5.14**	**9.35**	**17.76**
	Z3 G1	73	106.66	6.92	4.17	0.60	17.41	0.85	3.49	5.58	10.31	17.76
	Z3 G2	17	25.33	4.19	3.59	0.86	12.91	0.84	1.08	2.82	6.47	12.74
	Z3 G3	10	15.41	3.56	3.10	0.87	9.59	0.74	1.62	2.13	3.48	9.97
	Z3 G4	2	3	13.82	5.54	0.40	30.73	9.90	9.90	9.90	17.74	17.74
	Z3 G5	4	6.39	3.05	2.19	0.72	4.81	0.84	1.54	1.54	4.39	5.47
	Z3 G6	4	6	6.99	7.45	1.06	55.47	0.50	0.50	1.94	8.77	16.77
	Z3 G7	15	23.12	8.05	2.75	0.34	7.56	3.70	7.15	7.73	9.89	12.24
	Z3 G8	6	9.5	4.05	1.98	0.49	3.93	1.78	2.81	3.20	5.42	7.30
	Z3 G9	2	2.98	2.23	2.27	1.02	5.17	0.63	0.63	3.84	3.84	3.84
Standard		**250**	**373.20**	**6.00**	**4.38**	**0.73**	**19.17**	**0.01**	**3.20**	**5.09**	**8.24**	**20.40**
	STD 1A	155	228.97	6.87	4.78	0.70	22.81	0.01	3.57	5.96	9.10	20.40
	STD 2A	57	85.31	4.41	2.37	0.54	5.60	0.37	2.72	3.92	5.98	10.00
	STD 3A	22	34.70	4.10	3.01	0.73	9.05	0.01	1.40	4.73	6.15	12.20
	STD 3B	10	13.94	3.11	2.55	0.82	6.50	0.80	0.95	2.15	3.82	7.58
	STD 4A	6	10.27	10.21	5.65	0.55	31.91	2.33	6.18	9.39	13.84	17.67

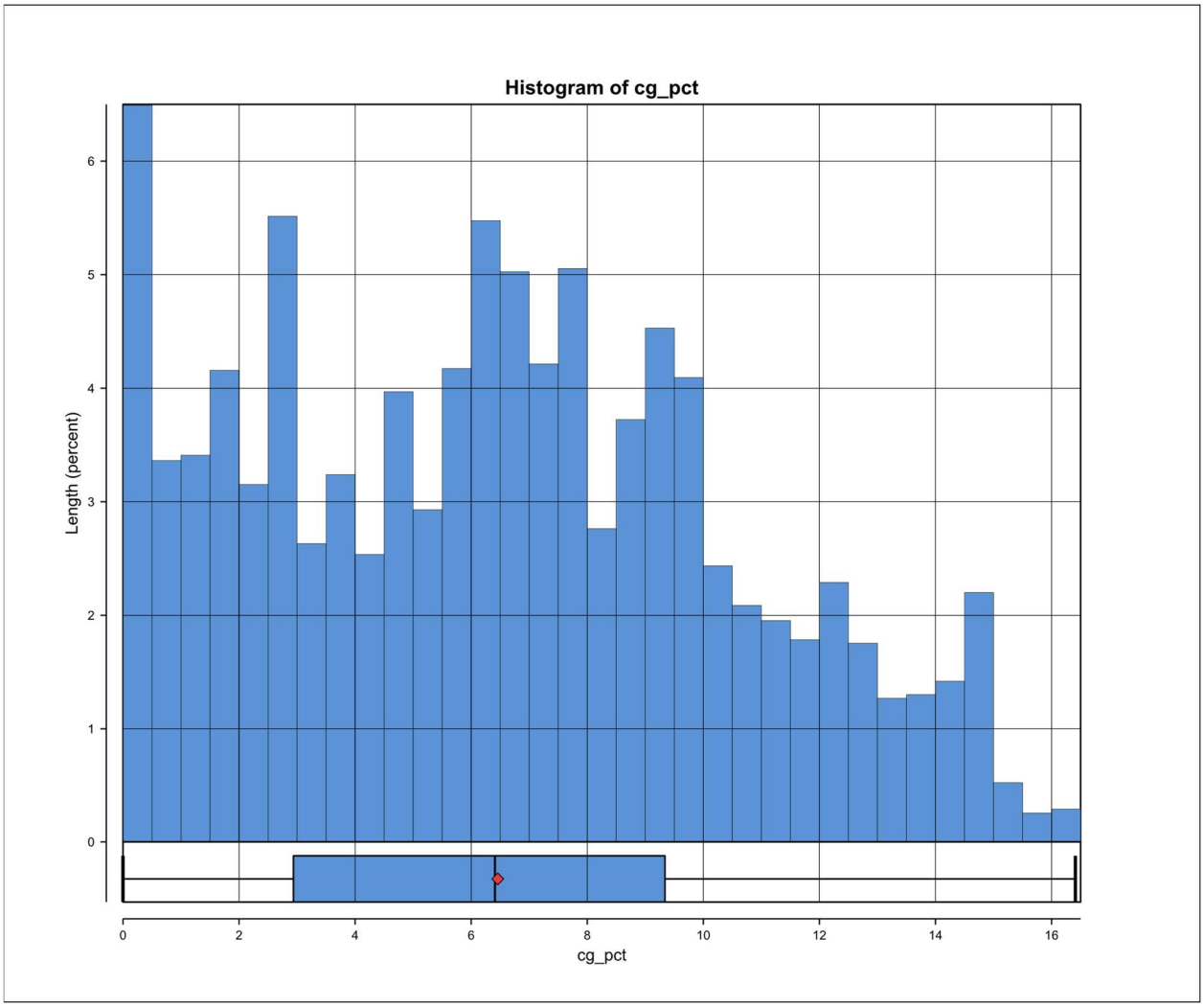
14.3.5 Capping

Analysis of graphite grade distribution for the downhole assay composite populations was completed through assessment of distribution histograms, cumulative frequency probability plots, and spatial analysis. These assessments were completed for both the individual domains and grouped zones (Pit Zone, Zone 1, Zone 4, and Standard). Figures 14-10 through 14-13 present Cg % distribution histograms for the 4 zones. During spatial analysis, graphite grade distributions of channel samples were also considered.

Analysis demonstrates that local outlier values are present. Spatial review showed that high-grade graphite composite and channel samples values can be localized, likely related to where graphite

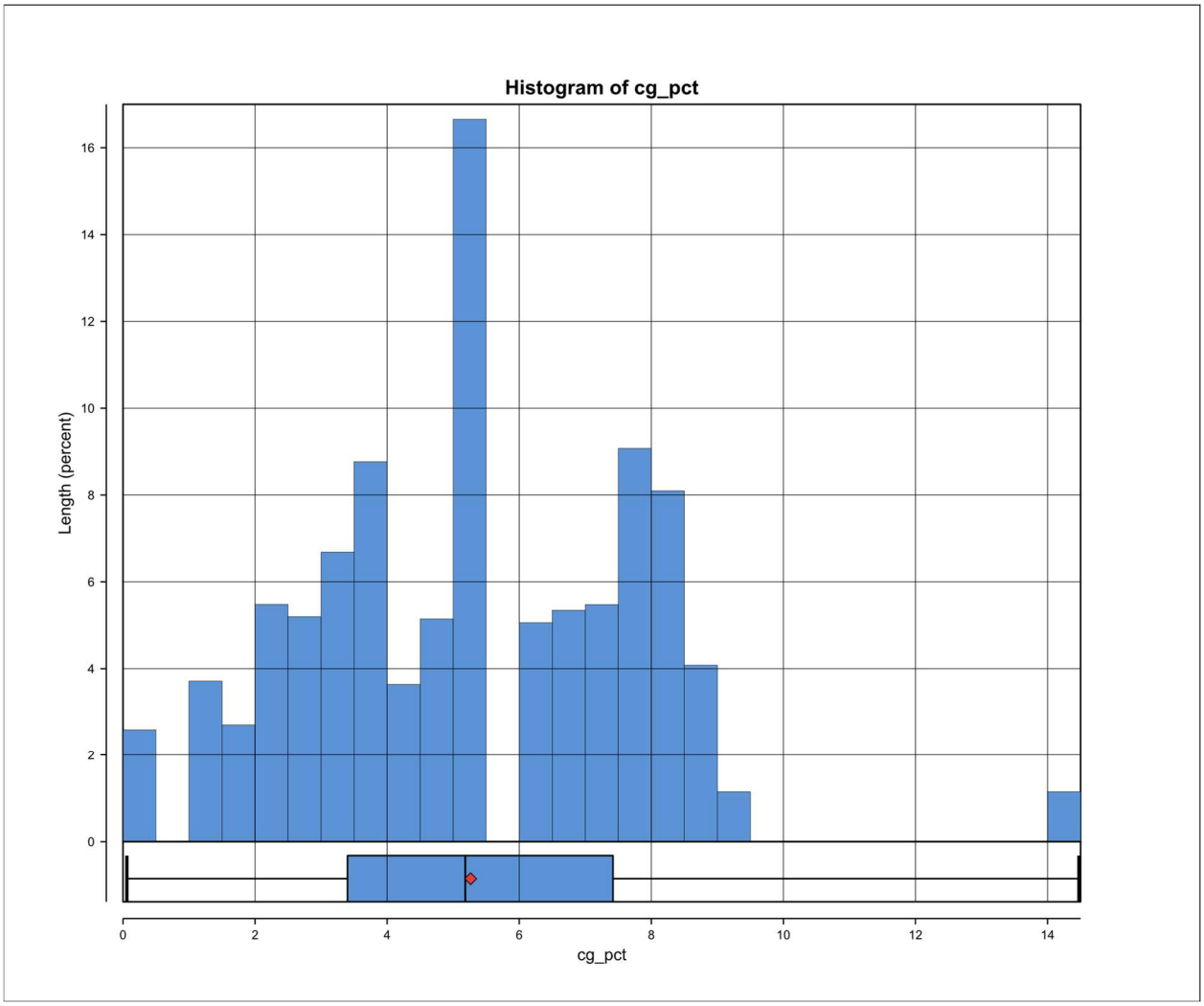
enrichment occurred from folding. A variable capping approach was applied to the composite dataset that resulted in 9% Cg (98.2 percentile) for Zone 1, 14% (96.4 percentile) for Zone 3, and 15% Cg (STD 1A, 92.8 percentile) and 8% Cg (STD 3A and 4A, 86.6 percentile) at Standard. No capping of composites was applied for the Pit Zone. At total of 6 of the 25 modelled domains are impacted by capping and descriptive statistic for those domains are presented in Table 14-2.

Figure 14-10: Grade distribution of Pit Zone composites



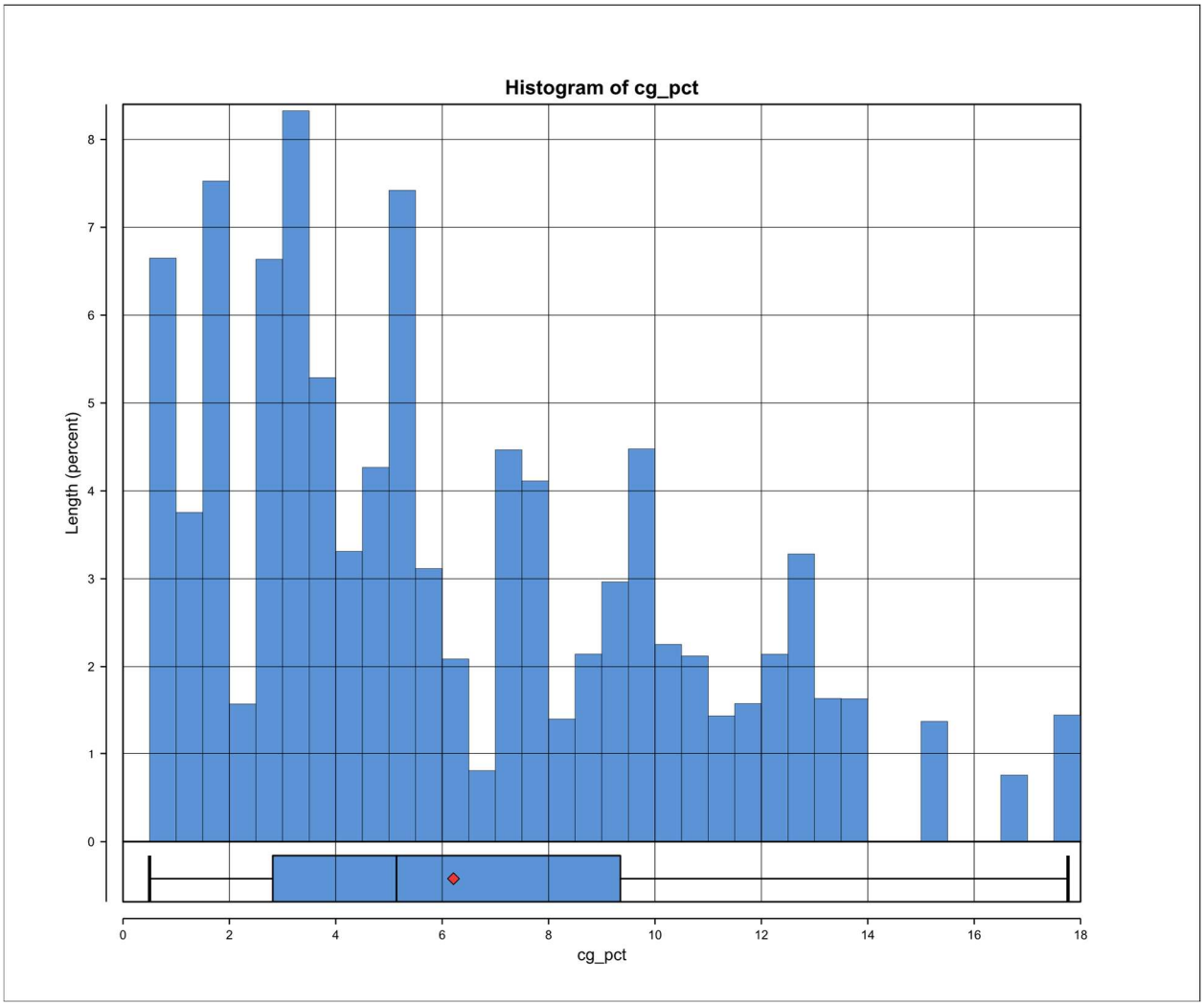
Mercator 2025)

Figure 14-11: Grade distribution of Zone 1 composites



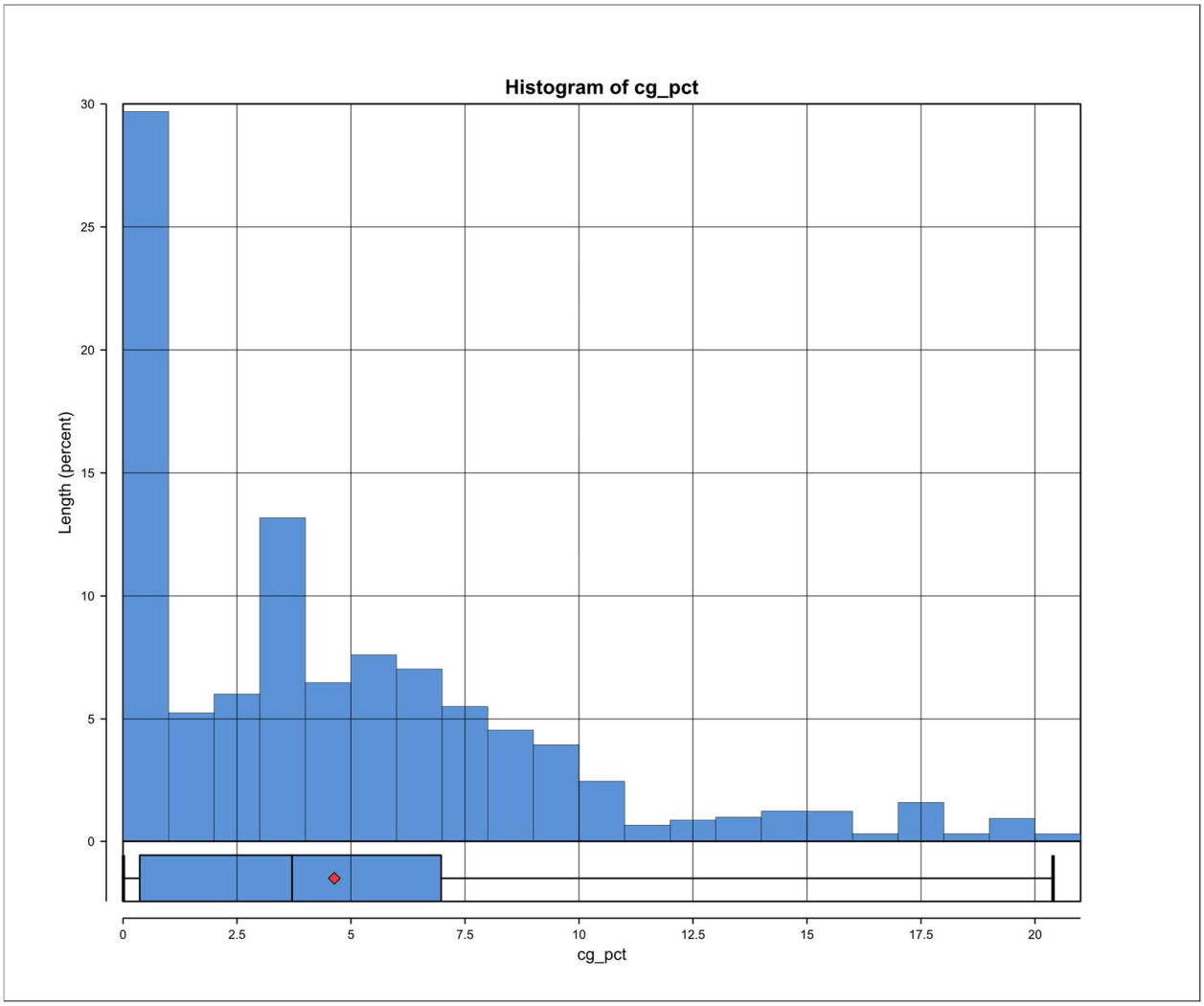
(Mercator 2025)

Figure 14-12: Grade distribution of Zone 3 downhole composites



(Mercator 2025)

Figure 14-13: Grade distribution of Standard composites



(Mercator 2025)

Table 14-2: Statistics for the capped 1.5 m downhole assay composites

Domain	Count	Mean	SD	CV	Variance	Min	Q1	Q2	Q3	Max
Z1 G2	51	5.25	2.24	0.43	5.01	0.08	3.67	5.16	7.31	9.00
Z3 G1	73	6.81	3.98	0.58	15.87	0.85	3.49	5.58	10.31	14.00
Z3 G6	4	6.39	6.17	0.97	38.03	0.50	0.50	1.94	8.77	14.00
STD 1A	155	6.61	4.25	0.64	18.00	0.01	3.53	5.96	9.10	15.00
STD 3A	22	3.89	2.67	0.68	7.12	0.01	1.40	3.67	6.15	8.00
STD 4A	6	6.75	2.29	0.34	5.23	2.33	6.18	8.00	8.00	8.00

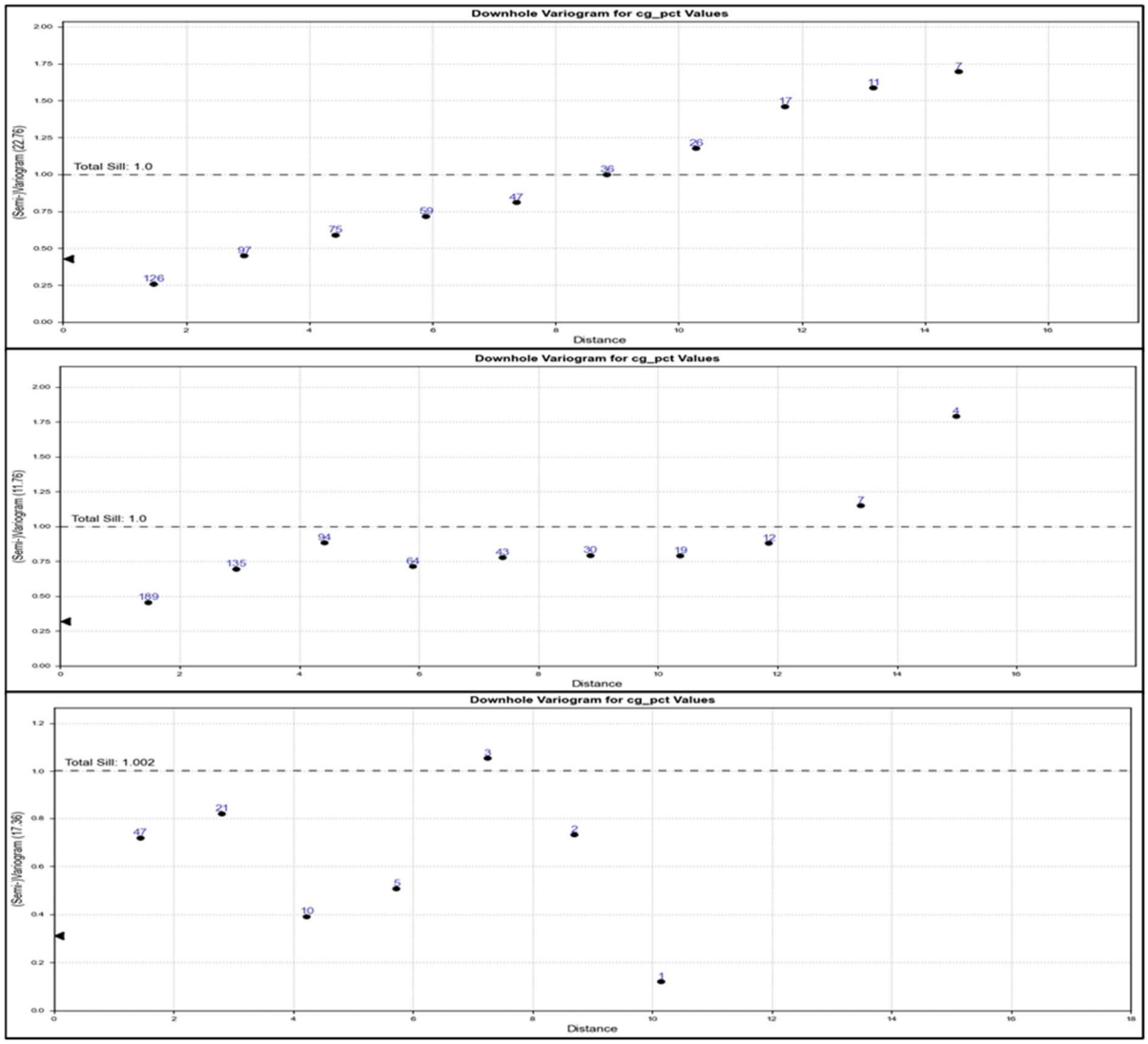
* Uncapped domains reflect grade distribution statistics presented in Table 14-1

14.3.6 Variography

Variography is a statistical tool used in resource estimation to evaluate the spatial distribution of grades within a mineralized domain. The QP prepared experimental downhole variograms from the 1.5 m assay composite datasets and created experimental directional variograms. Zone 1 was omitted from the variogram analyses due to poor data support.

Acceptable spherical model results were obtained for downhole variograms, thereby providing assessment of global nugget values and creating a basis of consideration for interpolation ellipsoid minor axis ranges (Figure 14-14).

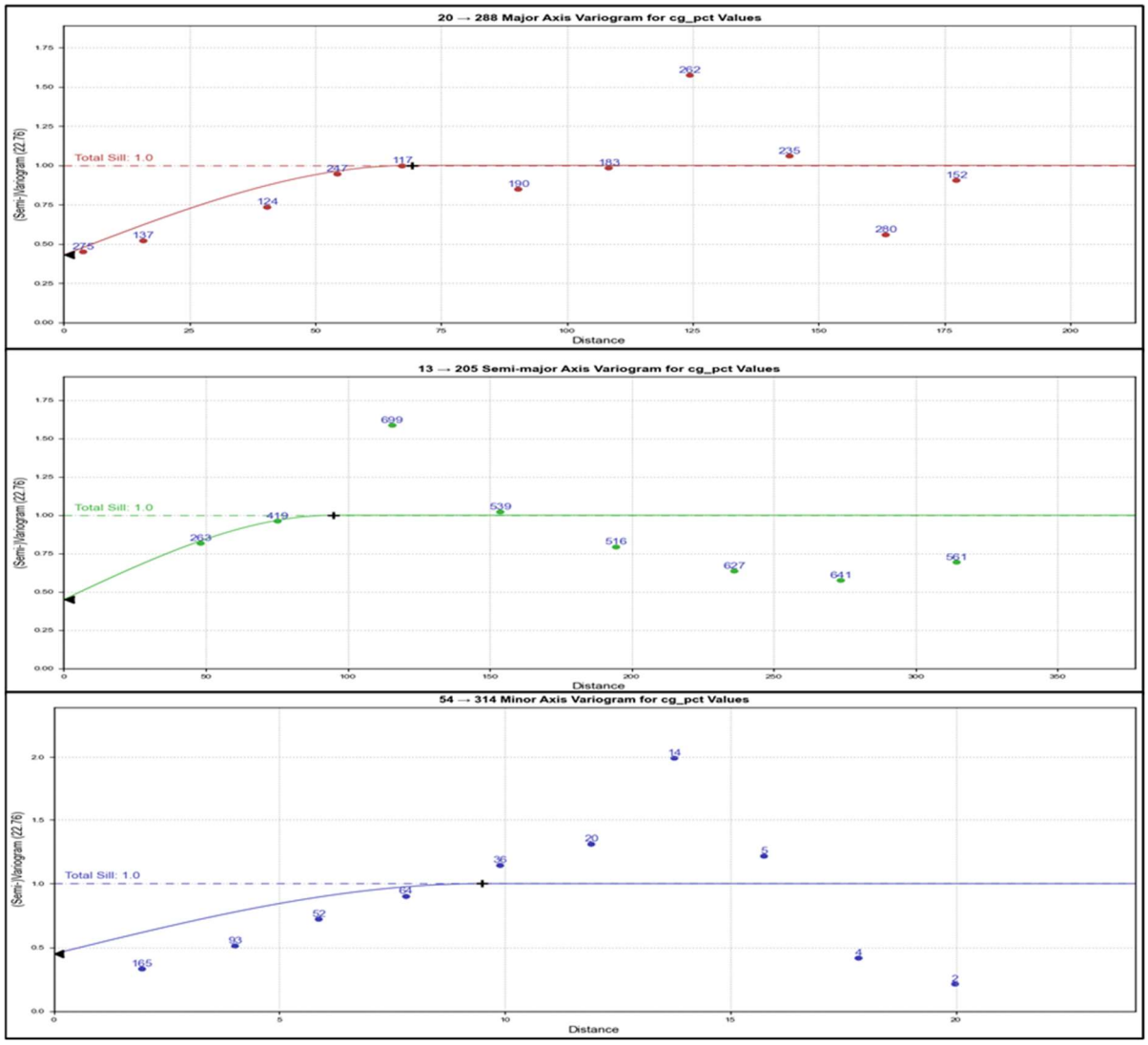
Figure 14-14: Downhole variograms for Standard (top), LAB Pit Zone (middle) and LAB Zone 3 (bottom)



(Mercator 2025)

At Standard, best experimental variograms were developed in the dip direction of the fold limbs that corresponds to a northwest-southeast orientation. A spherical model was fitted with a range of 70 m. A spherical model with a range of 90 m was fitted to the strike direction, however, the experimental variograms were less robust in this direction. As such, primary orientation for interpolation was aligned towards the dip direction. Figure 14-15 presents directional variograms for Standard.

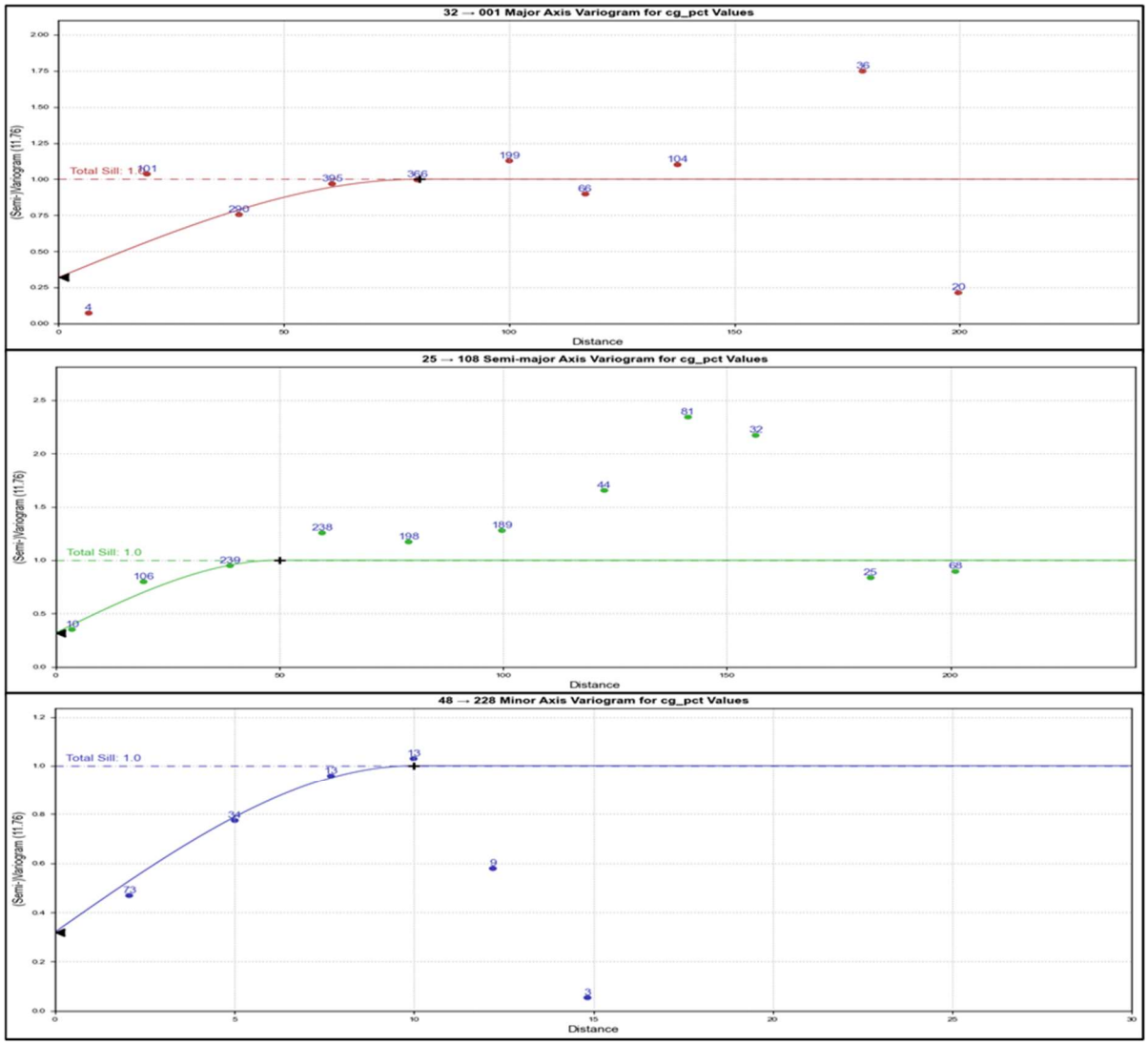
Figure 14-15: Directional variograms - Standard



(Mercator 2025)

Variogram assessment at the Pit Zone was focused on the main horizon, as the footwall zones have insufficient data support. A major axis variogram was developed showing a 32° plunge to the north and a spherical model was fitted with a range of 80 m. The semi-major axis variogram aligned along a 25° plunge to the southeast and a spherical model was fitted with a range of 50 m. The minor axis showed a range of 10 m. These orientations correlate well with deposit interpretations, and the major axis aligns towards the plunge of the fold hinge. Figure 14-16 presents directional variograms for the Pit Zone.

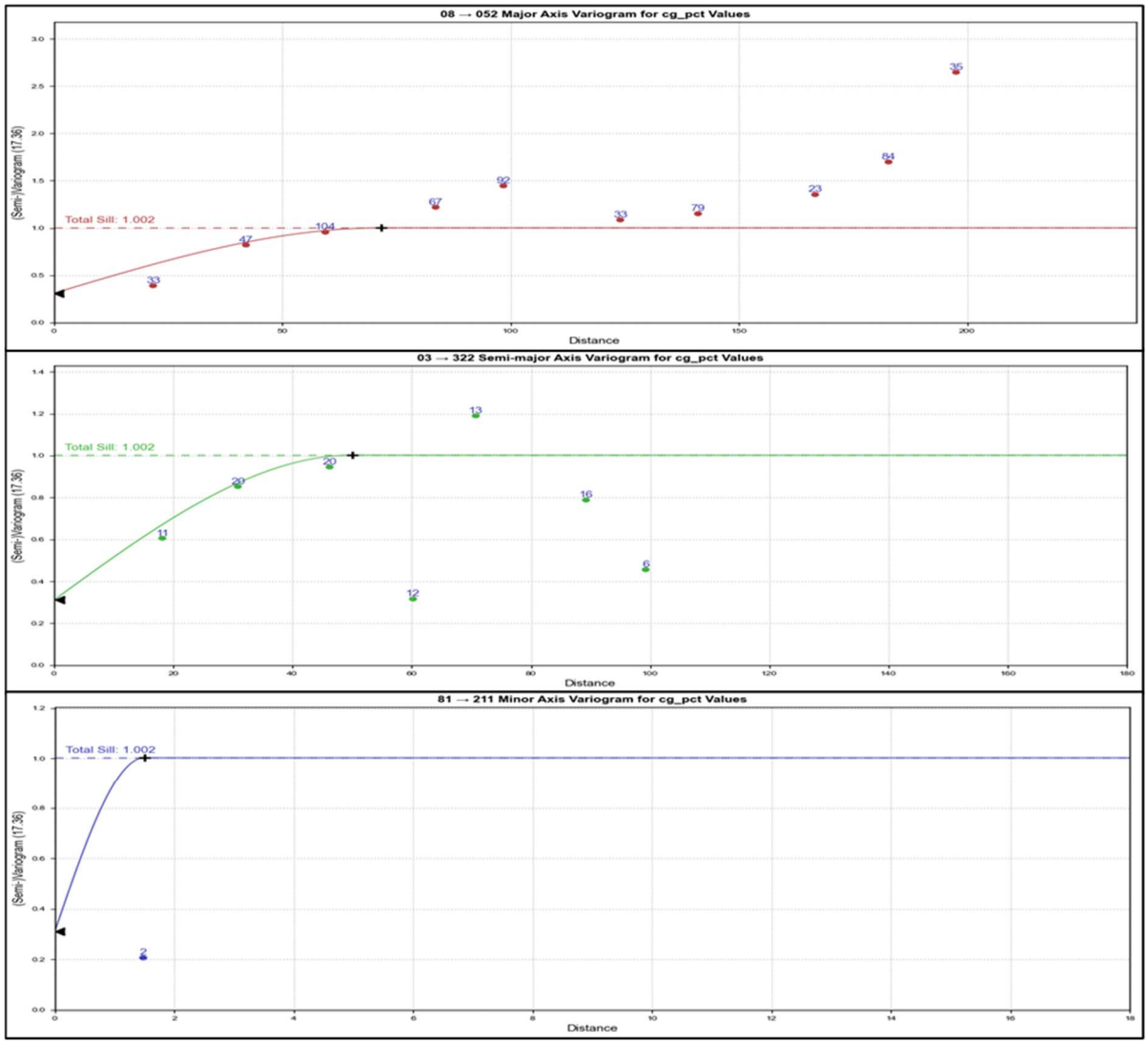
Figure 14-16: Directional variograms – LAB Pit Zone



(Mercator 2025)

Variogram assessment at Zone 3 was focused on the main horizon, as secondary zones have insufficient data support. Experimental models developed at Zone 3 were not overly robust. Best results were returned in the orientation of the fold hinge, with spherical models showing a major axis range of 70 m and semi-major axis range of 50 m. Figure 14-17 presents the directional variograms for Zone 3.

Figure 14-17: Directional variograms – LAB Zone 3



(Mercator 2025)

14.3.7 Block Model Setup

Separate sub-cell block models were developed for the LAB deposit and Standard deposit in Leapfrog. Sub-blocking was triggered using topography, mineralization domains, categorization domains, and optimized pit shells. The block model extents are presented in Table 14-3 and were defined using UTM NAD83 Zone 18N coordination and elevation relative to sea level. No rotation was applied to the block model.

Table 14-3: Block model parameters

	Easting (m)	Northing (m)	Elevation (m)
LAB			
Parent Block Size	5	5	6
Minimum Block Size	1.25	1.25	1.5
Minimum Extents	457,550	5,133,675	100
Maximum Extents	459,150	5,134,800	304
Standard			
Parent Block Size	4	4	4
Minimum Block Size	1	1	1
Minimum Extents	482,950	5,454,107	425
Maximum Extents	483,546	5,454,695	304

* UTM NAD83 Zone 18N coordination and masl datum

14.3.8 Density

A density value of 2.80 g/cm^3 was applied to all Mineral Resource volumes. This reflects the density value applied to Mineral Resources at the LDI operated by NGC (SLR, 2024), which is adjacent to the LAB Property and hosted with similar stratigraphy. An average density value of 2.82 g/cm^3 was returned from 21 IW check samples completed by the QP. It is recommended that Graphano completes a comprehensive specific gravity program on both deposits.

14.3.9 Block Model Interpolation and Estimation Parameters

14.3.9.1 Drill hole Spacing

An estimate of drill hole spacing for each block was first developed. An isometric interpolation using a dummy variable was performed for each deposit zone from the respective 1.5 downhole assay composites. Composite selection criteria were restricted to a single composite per drill hole and a maximum of 3 composites. A drill hole spacing value for each block was the calculated using ***sqrt(2) * average distance of the three contributing drill holes***. The drill hole spacing value was used to determine ranges for Cg % interpolation and for Mineral Resource classification.

14.3.9.2 Grade Interpolation

Inverse Distance Squared ("ID^2") grade interpolation methodology was used to assign block graphitic carbon grades based on the 1.5 m assay composites. A multi-pass interpolation approach consisting primarily of 4 separate stages was developed to populate the block model using progressively increasing ellipsoid ranges for each pass. Interpolation passes, implemented sequentially from pass 1 to pass 4, progressed from being restrictive to more inclusive in respect to the composites available and number of composites required to assign block grades. Grade domain boundaries were set as hard boundaries and grade interpolation was restricted to the 1.5 m assay composites associated with the drill hole intercepts assigned to each domain.

Interpolation ellipsoid ranges were developed through consideration of the variogram assessment, geological interpretation, drill hole spacing, and Mineral Resource categorization requirements. A summary of estimation parameters is presented in Table 14-4. A 5th interpolation pass was applied locally at Zone 3 and Zone 1 to fill the modelled domains using ranges up to 120 m and the composite selection criteria from the LAB – 4 pass.

Table 14-4: Summary of estimation parameters

	Range			Contributing Composites		
Deposit - Interpolation Pass	**Major (m)**	**Semi-Major (m)**	**Minor (m)**	**Minimum**	**Maximum**	**Maximum Per Drill Hole**
LAB – 1	40	27.5	20 / 15	9	12	4
LAB – 2	60	41.25	20 / 15	5	12	4
LAB – 3	80	55	20 / 15	4	9	3
LAB – 4	80	55	20 / 15	2	6	3
Standard						
Standard – 1	50	35	20	7	9	3
Standard – 2	75	55	20	4	9	3
Standard – 3	100	75	20	3	6	3
Standard – 4	150	125	25	2	6	3

* At 20 m minor range was applied at LAB Zone 1 and LAB Zone 3 and a 15 m minor range was applied at LAB Pit Zone.

Each graphite domain used a variable orientation to best respect the local geometry during grade interpolation. Domain variable orientations were assigned a primary direction representative of that domain except for the LAB Pit Zone main horizon (PZ 01), which was informed by the associated variogram model. As such, interpolation ellipsoids respect a primary orientation and rotate in plunge and dip to accommodate changes in geometry like undulations and folding. Summary of primary ellipsoid orientations are provided in Table 14-5.

Table 14-5: Summary of primary ellipsoid orientations

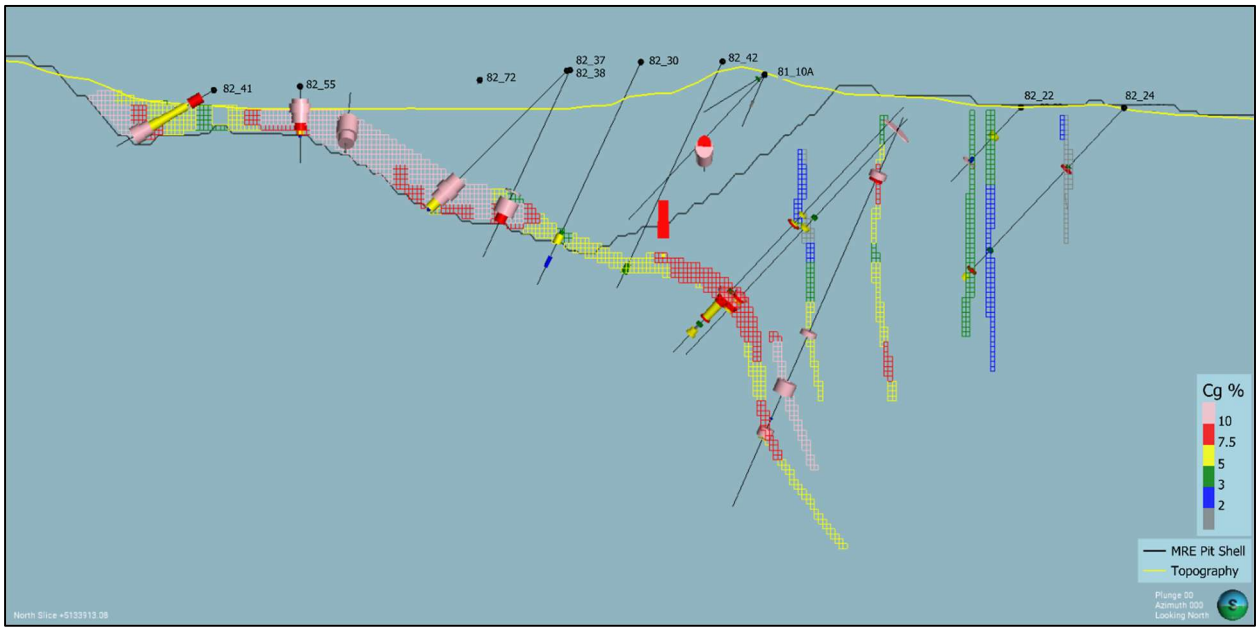
Domain	Azimuth (^{0})	Plunge (^{0})
PZ O1	Variogram	
PZ O2	194	-20
PZ O3	190	-20
PZ O4	354	85.7
PZ O5	285.2	-2.5
PZ O6	69	10
PZ O7	253	89
PZ O8	99	90
PZ O9	274	3
Z1 G1	313	68
Z1 G2	316	60
Z3 G1	20	0
Z3 G2	28.5	10.5
Z3 G3	25	6
Z3 G4	40.25	-14
Z3 G5	56	-4.25
Z3 G6	356	-13
Z3 G7	29.5	16.5
Z3 G8	59	28
Z3 G9	23	9
STD 1 A	120	0
STD 2A	120	0
STD 3A	120	0
STD 3B	225	0
STD 4B	245	0

14.4 Model Validation

Block volume estimates for each domain were compared with corresponding domain volume reports and results show good correlation, indicating consistency in volume capture and block model volume reporting.

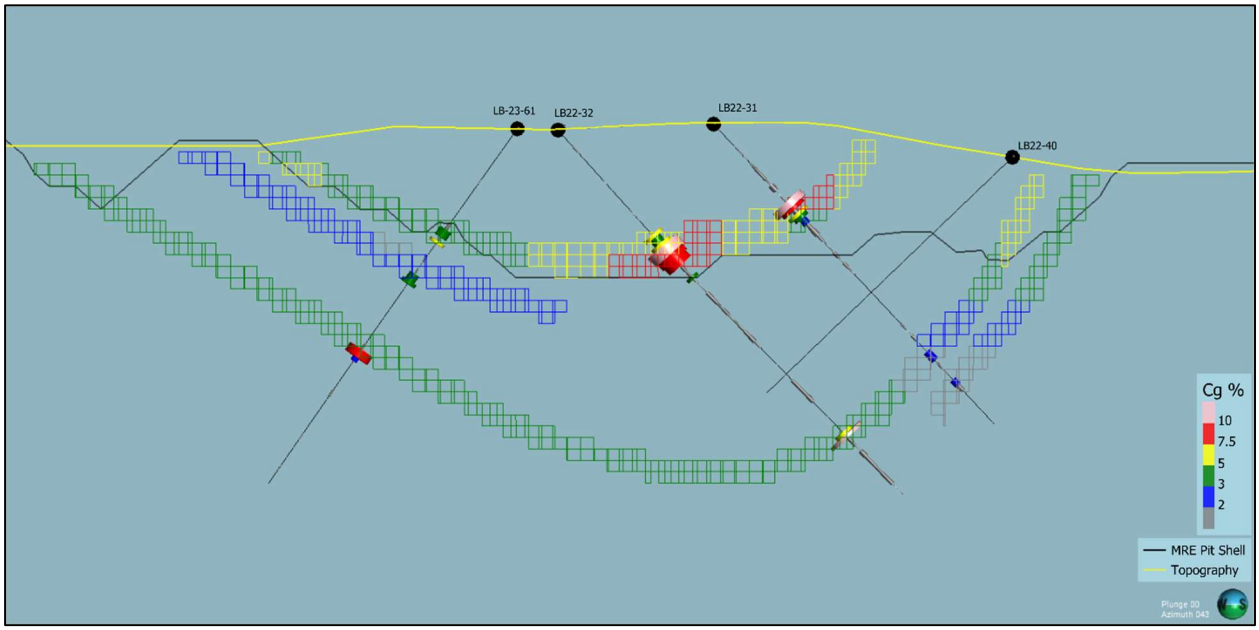
Results of block modelling were reviewed in three dimensions and compared on a section by section basis with associated drill hole data. Block grade distributions were deemed to show acceptable correlation with the drill hole data. Visual inspection of graphite distribution trends also showed consistency between the block model and the independently derived geological interpretations of the deposit. Figures 14-18 through 14-21 show representative sections for each deposit area.

Figure 14-18: LAB Pit Zone – representative E-W section looking north



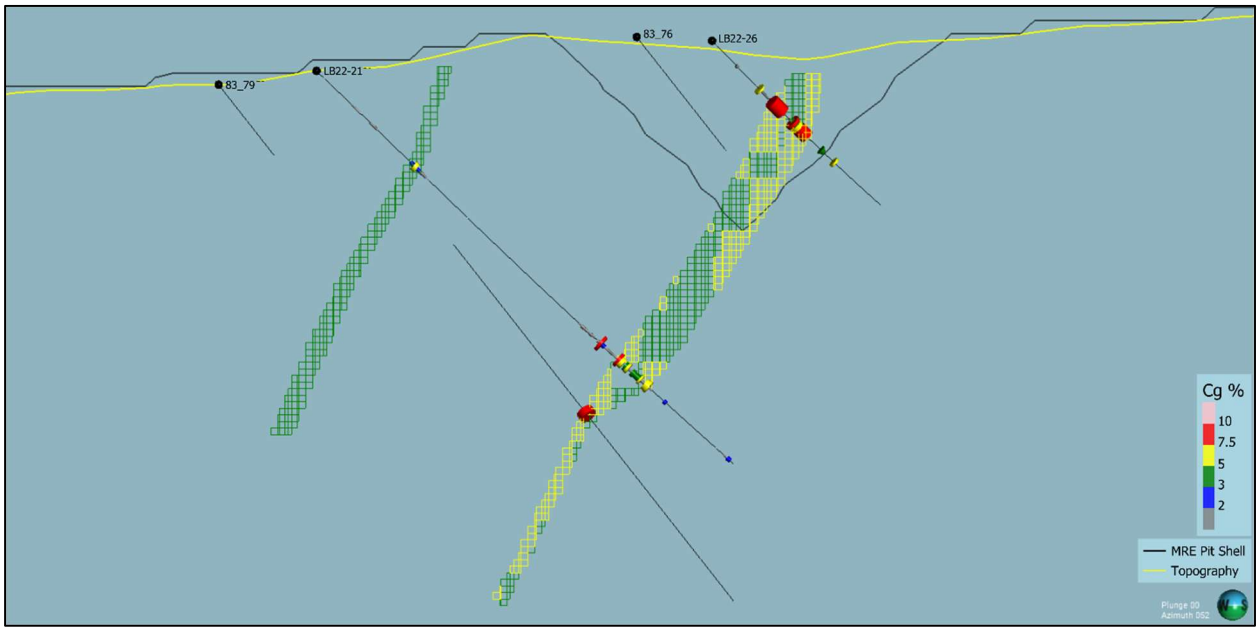
(Mercator 2025)

Figure 14-19: LAB Zone 3 – representative E-W section looking north



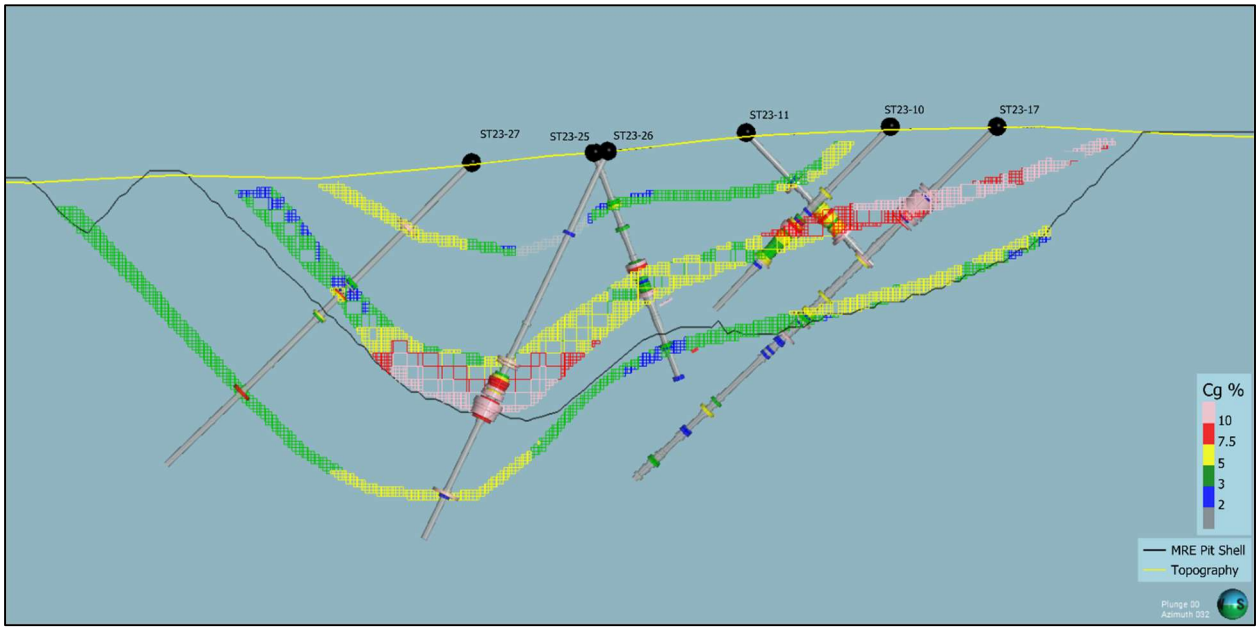
(Mercator 2025)

Figure 14-20: LAB Zone 1 – representative E-W section looking northeast



(Mercator 2025)

Figure 14-21: Standard – representative E-W section looking northeast



(Mercator 2025)

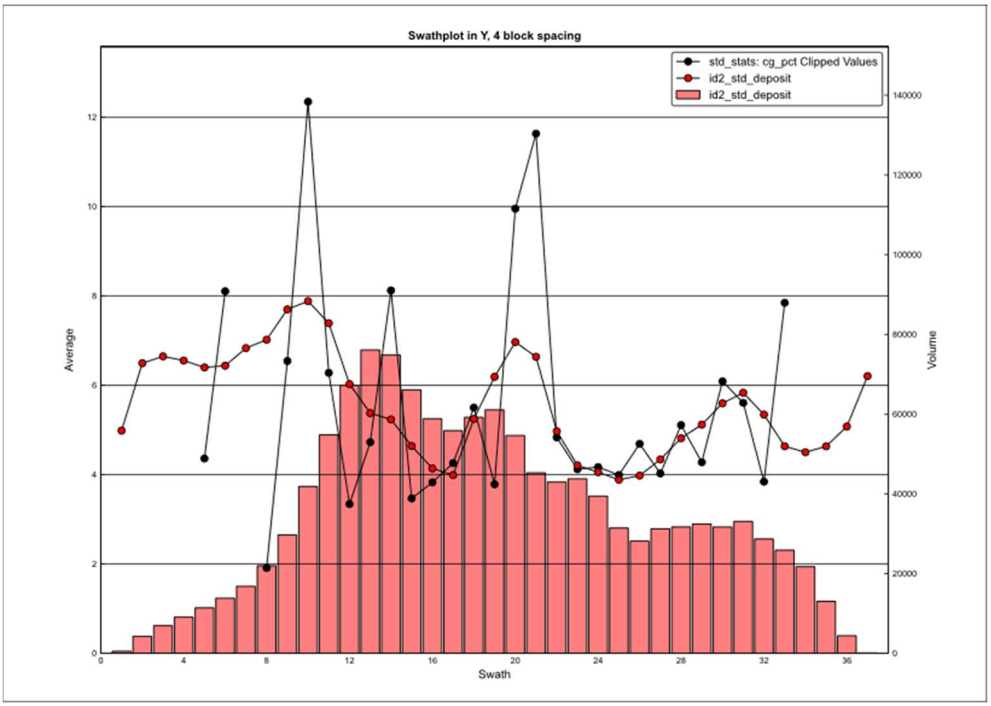
Block model statistics for interpolated blocks were tabulated and compared to the raw downhole assay composites for each deposit zone. Results appear below in Table 14-6

Table 14-6: Comparison between block model and composite statistics

Composite	Count	Length	Mean	SD	CV	Variance	Min	Q1	Q2	Q3	Max
Pit Zone	404	594.05	6.42	4.08	0.64	16.64	0.00	2.91	6.41	9.32	16.41
Zone 1	77	116.32	5.26	2.54	0.48	6.43	0.06	3.40	5.18	7.42	14.48
Zone 3	133	198.39	6.21	4.20	0.68	17.61	0.50	2.82	5.14	9.35	17.76
Standard	250	373.20	6.00	4.38	0.73	19.17	0.01	3.20	5.09	8.24	20.40
Block Model	**Count**	**Volume**	**Mean**	**SD**	**CV**	**Variance**	**Min**	**Q1**	**Q2**	**Q3**	**Max**
Pit Zone	132,600	323,923	6.36	3.05	0.48	9.30	0.32	4.21	6.48	8.42	14.66
Zone 1	157,452	374,048	4.96	1.48	0.30	2.18	1.56	3.67	5.13	6.19	8.47
Zone 3	174,651	410,372	5.89	2.97	0.50	8.83	1.11	3.41	5.15	8.15	13.31
Standard	1,052,358	1,268,952	5.47	2.77	0.51	7.68	0.05	3.64	4.68	6.39	15.00

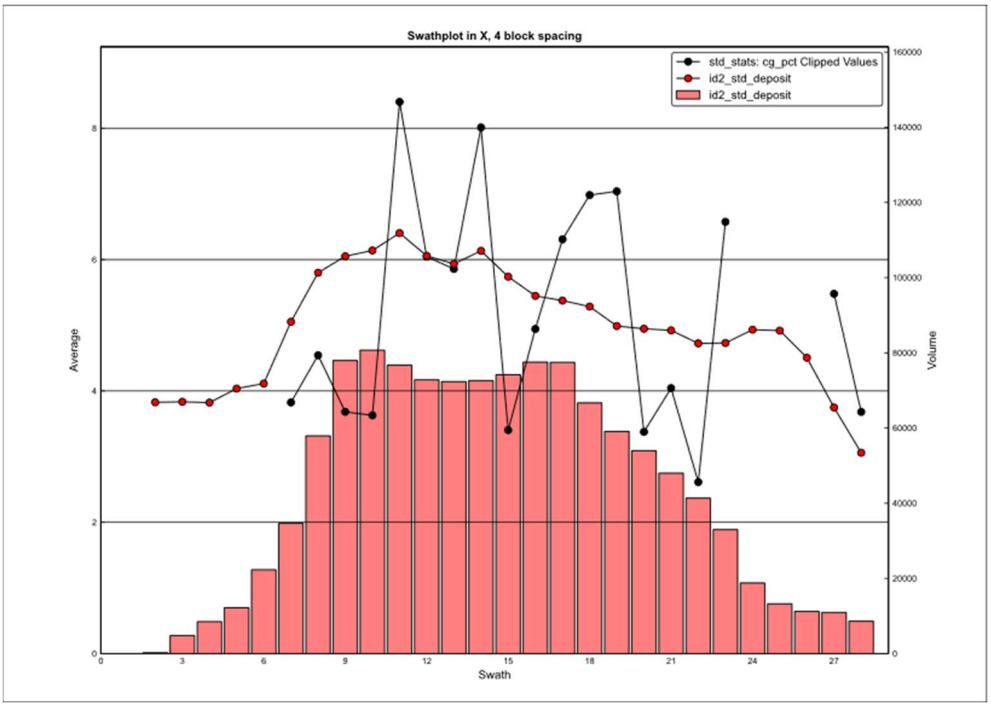
Horizontal swath plots, in both northing and easting directions, and vertical swath plots were created for the block values, tonnages and average assay composite values. The resulting spatial distribution trends of the average assay grades and the average block grade values compare acceptably (Figure 14-22 to Figure 14-33).

Figure 14-22: Northing swath plot - Standard



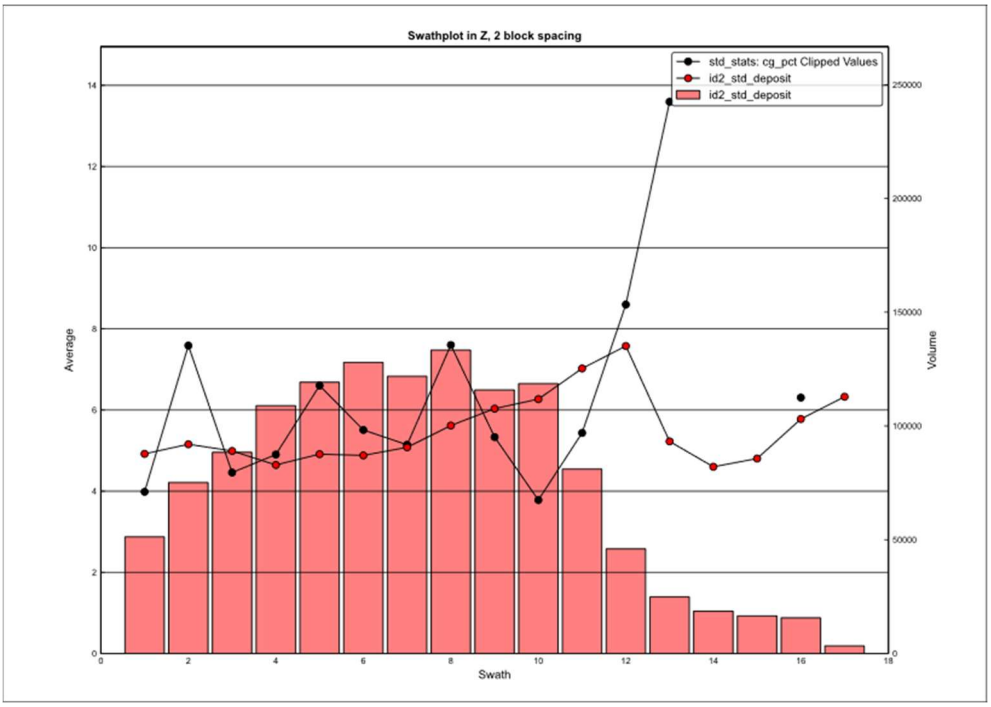
(Mercator 2025)

Figure 14-23: Easting swath plot - Standard



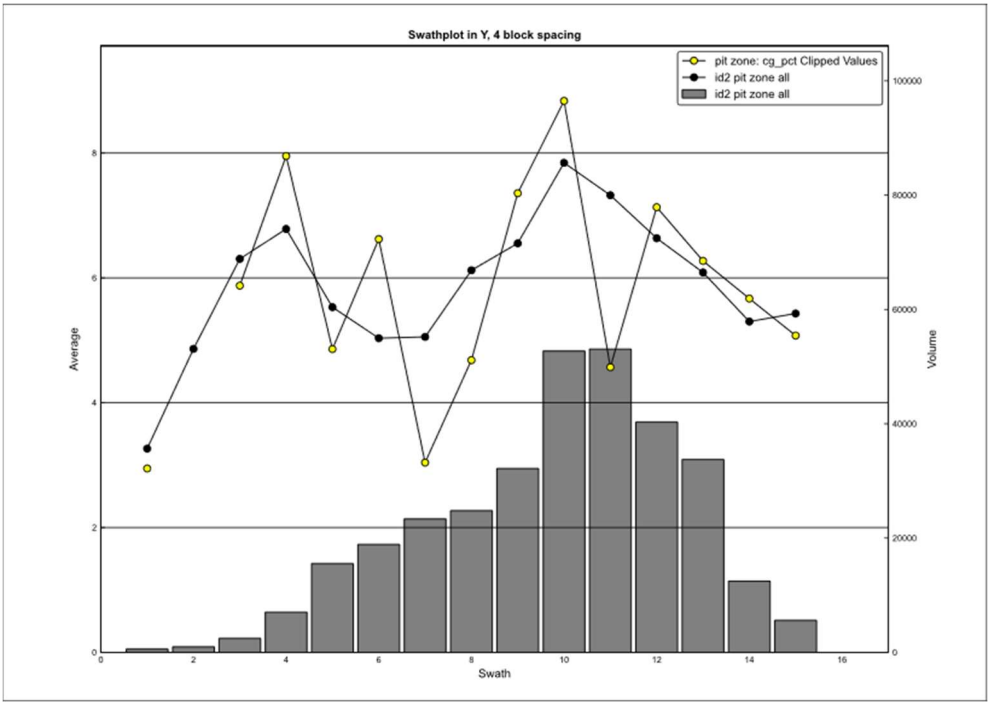
(Mercator 2025)

Figure 14-24: Elevation swath plot – Standard



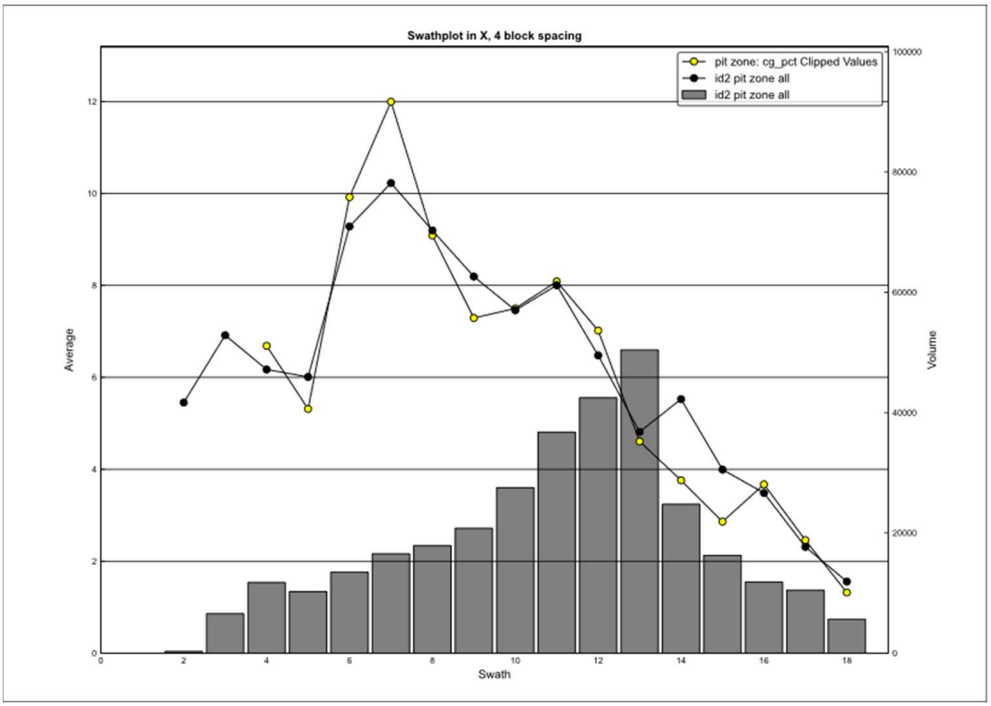
(Mercator 2025)

Figure 14-25: Northing swath plot – LAB Pit Zone



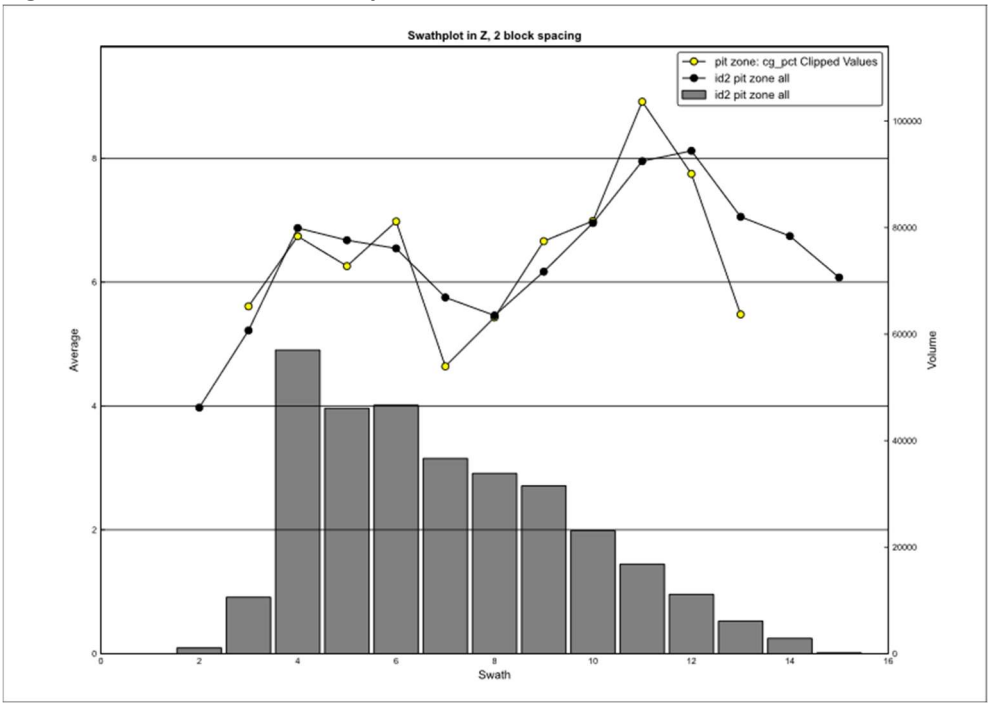
(Mercator 2025)

Figure 14-26: Easting swath plot – LAB Pit Zone



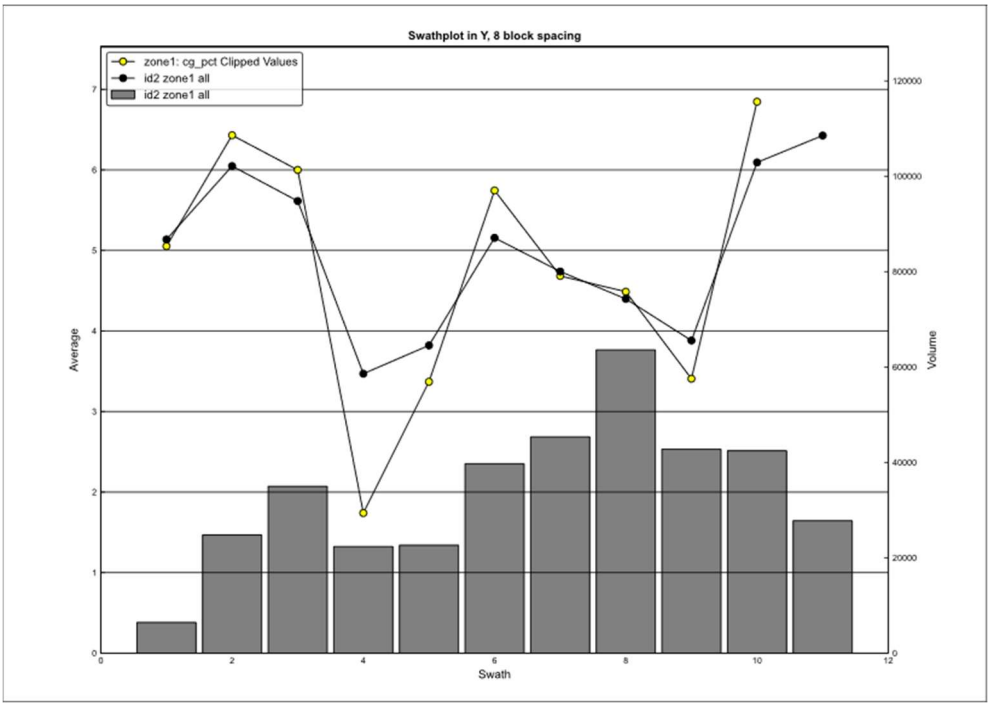
(Mercator 2025)

Figure 14-27: Elevation swath plot – LAB Pit Zone



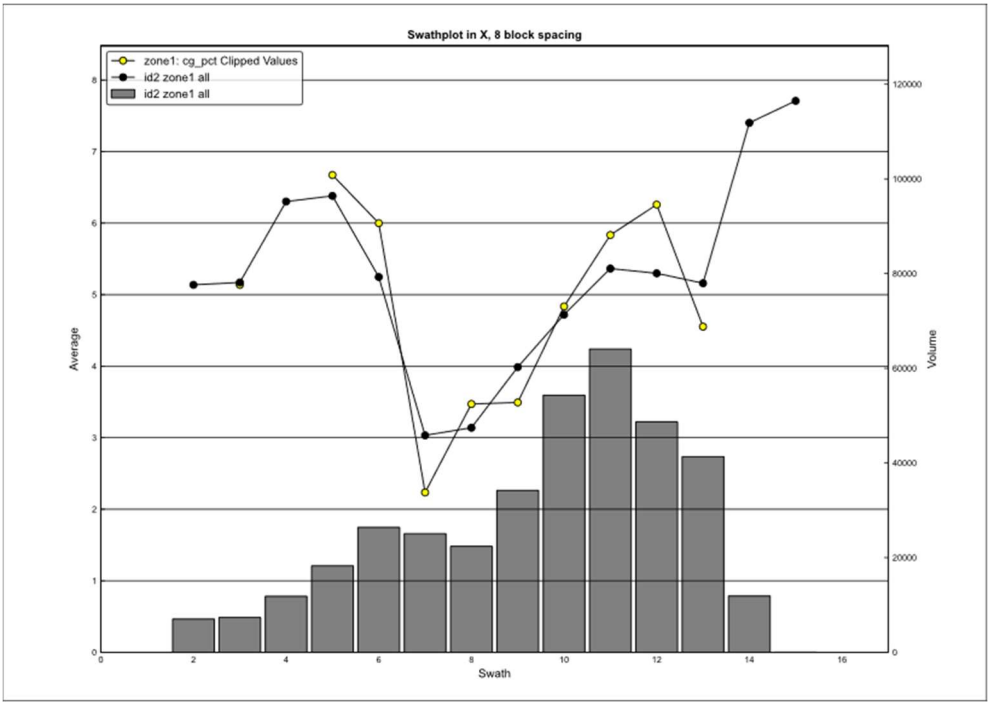
(Mercator 2025)

Figure 14-28: Northing swath plot – LAB Zone 1



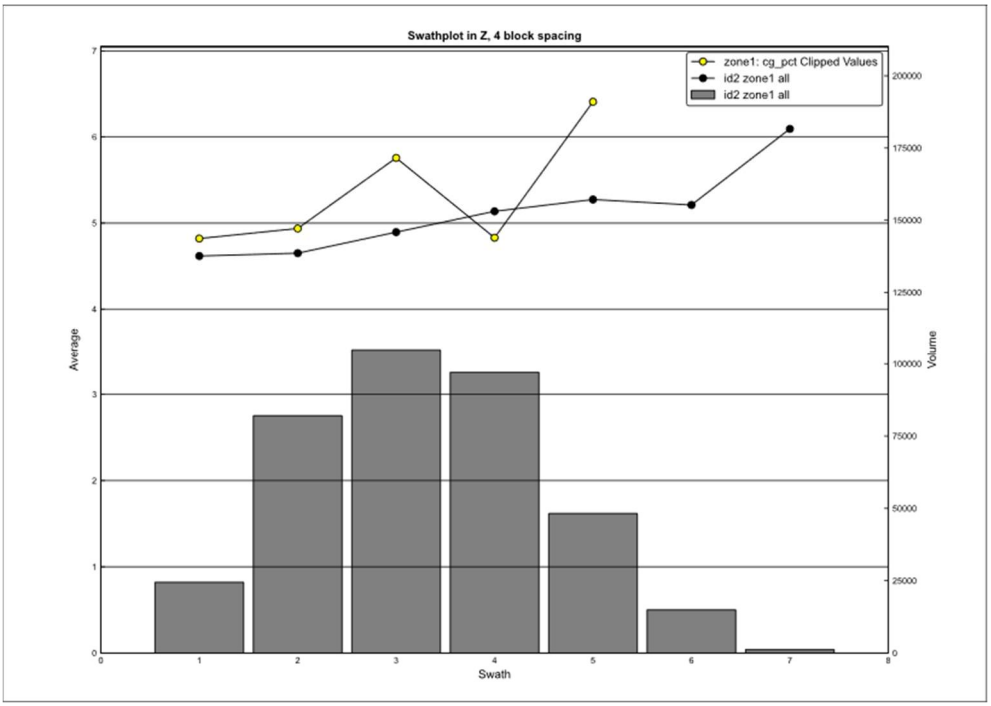
(Mercator 2025)

Figure 14-29: Easting swath plot – LAB Zone 1



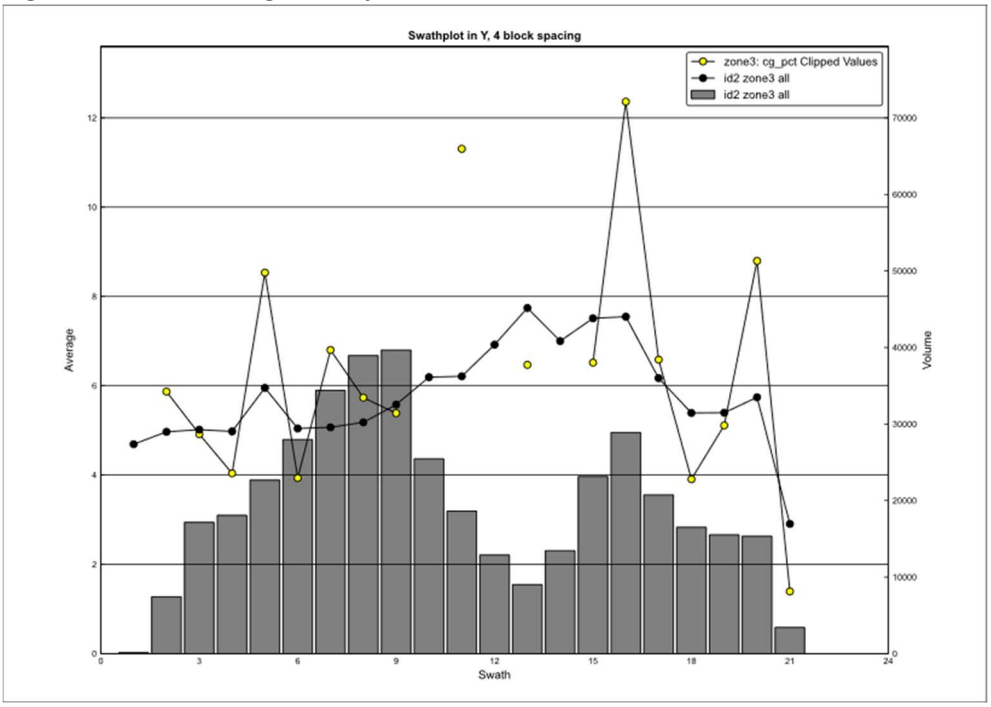
(Mercator 2025)

Figure 14-30: Elevation swath plot – LAB Zone 1



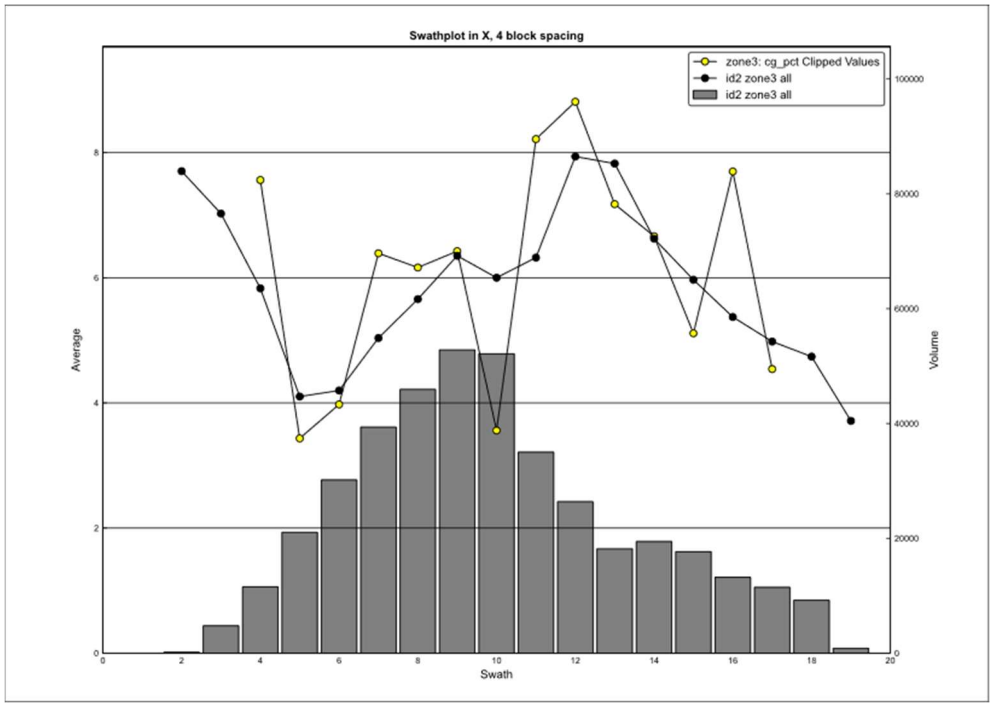
(Mercator 2025)

Figure 14-31: Northing swath plot – LAB Zone 3



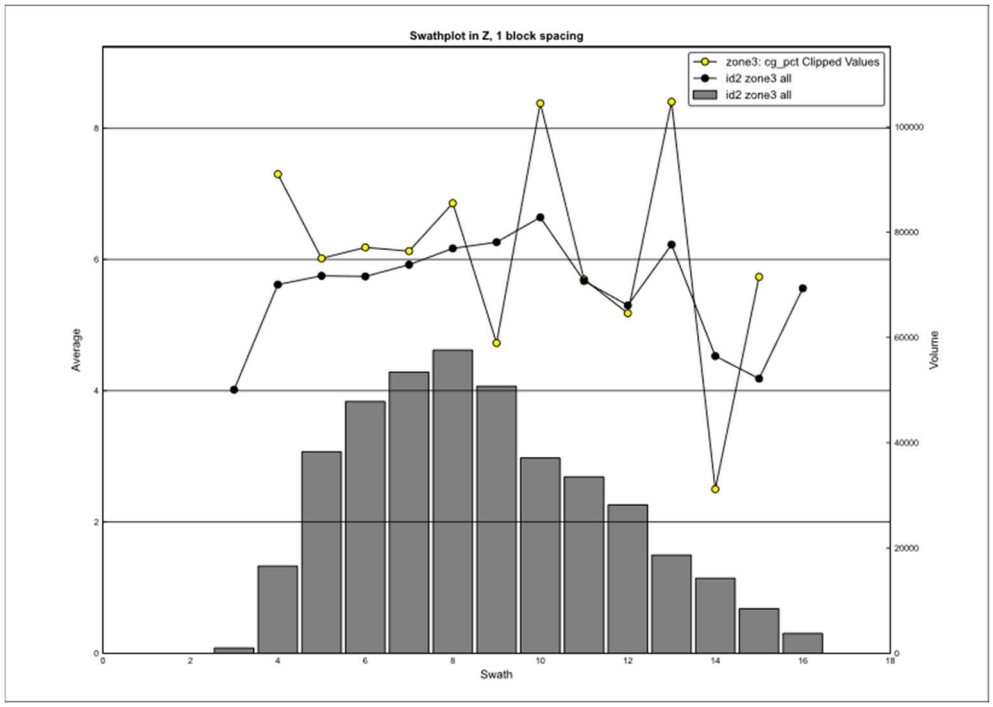
(Mercator 2025)

Figure 14-32: Easting swath plot – LAB Zone 3



(Mercator 2025)

Figure 14-33: Elevation swath plot – LAB Zone 3



(Mercator 2025)

An Ordinary Kriging comparison estimate was prepared for several domains to compare estimation methodology, smoothing, and grade distribution patterns. Results were satisfactory for the assessed domains.

14.5 Reasonable Prospects for Eventual Economic Extraction

The reasonable prospects for eventual economic extraction requirement set out in the CIM Definition Standards was addressed by means of developing an optimized pit shell to constrain Mineral Resources amenable to open pit mining methods. Block models were regularized to support pit optimization. The LAB block model was regularized to a 2.5 m (Y) by 2.5 m (X) by 3 m (Z) support. The Standard block model was regularized to a 2 m (Y) by 2 m (X) by 2 m (Z) support.

Pit shells were developed and optimized by AGP Mining Consultants on behalf of the QP. The pit shell was generated with Hexagon Mine Plan 3D version 16.3.0, MineSight® Economic Planner version 4.00-14 software using the Lerchs-Grossman ("LG") algorithm and the input parameters presented in Tables 14-7. Graphite pricing and recoveries were developed in consideration with similar projects, including the LDI operated by NGC (SLR, 2024). Costing was also developed in consideration of similar projects and based on AGP's experience in the industry.

The reader is cautioned that the results from the pit optimization are used solely for the purpose of addressing reasonable prospects for eventual economic extraction by an open pit mining scenario and do not represent an estimate of Mineral Reserves. The results are used as a guide to assist in the preparation of a MRE and to select an appropriate Mineral Resource reporting cut-off grade.

Table 14-7: Pit optimization parameters

Parameter	Units	Value
	USD$/tonne	1,500
Calculated Price per Tonne of Concentrate	$CDN/lb	0.99
Graphite Recovery	%	90
Concentrate Grade	%	93
Mining Cost	$/tonne	4.5
Milling Cost	$/tonne feed	30
G&A Cost	$/tonne feed	12
Transportation Cost	$/tonne concentrate	22
Exchange Rate	CDN: USD	0.74

The pit optimization parameters defined a marginal cut-off grade of 2.18% Cg. After review of the pit optimization results, a selective cut-off value of 3.0% Cg within the pit shell was used to define reasonable prospects for eventual economic extraction by open pit mining methods. The pit has an overall 4.73:1 strip ratio (waste : mineralized material) and average slope angles of 45^{o}. Figures 14-34

and 14-35 show the optimized pits. The optimized pit shells were applied to the parent block models for definition of Mineral Resources.

Figure 14-34: LAB deposit optimized pit shell

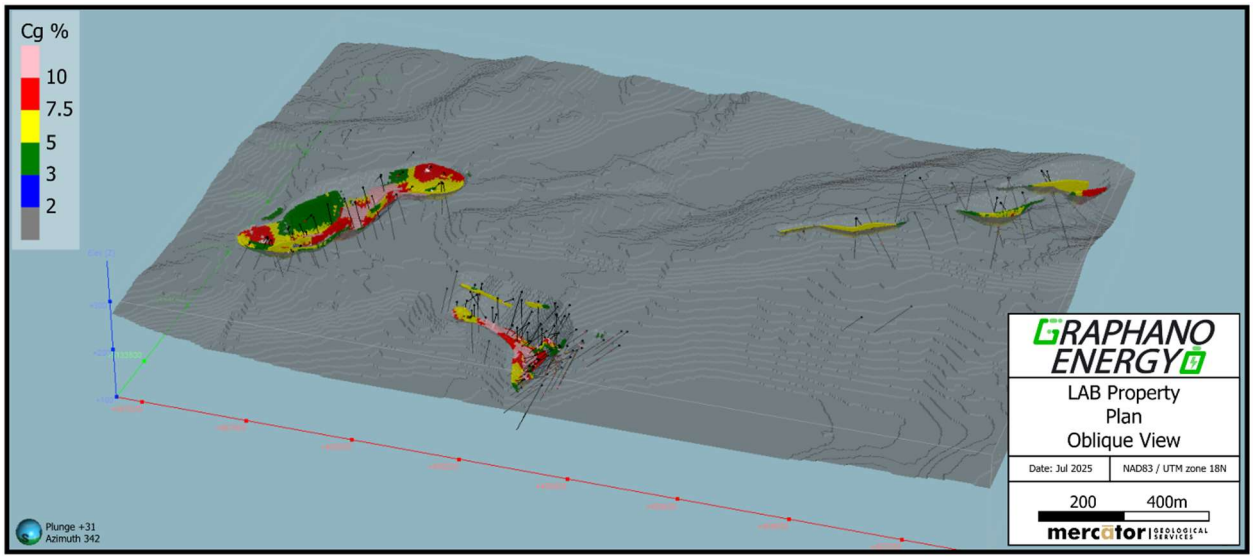
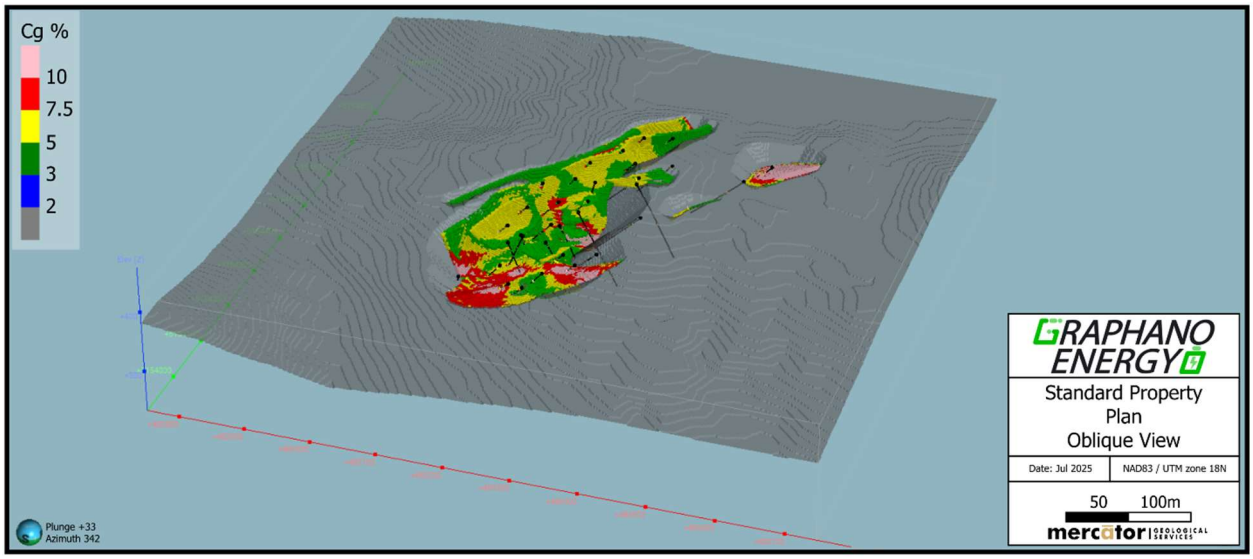


Figure 14-35: Standard deposit optimized pit shell



14.6 Resource Category Parameters

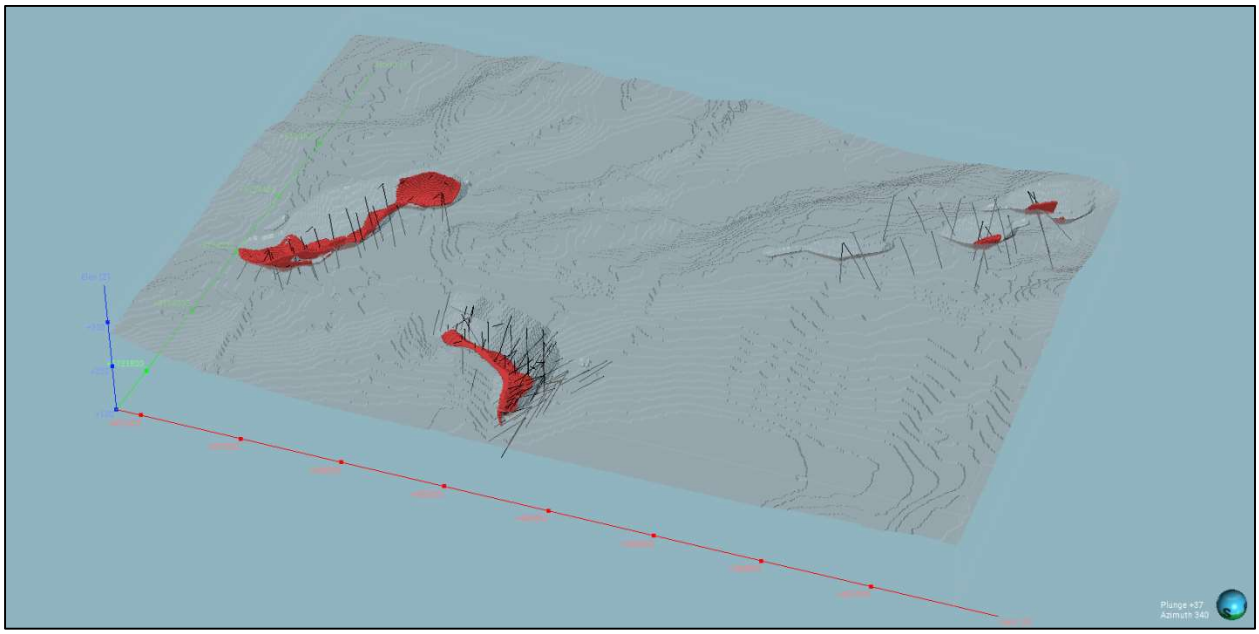
Definitions of Mineral Resources and associated Mineral Resource categories used in this Technical Report are those set out in the CIM Definition Standards. Several factors were considered in defining resource categories, including drill hole spacing, geological interpretations, and number of informing assay composites. Specific definition parameters for each resource category applied in the current

estimate are set out below. Mineral Resources presented in the current estimate have been assigned to Inferred and Indicated Mineral Resource categories.

Blocks interpolated in the first or second interpolation pass and support an average drill hole spacing value of less than 50 to 60 m, depending on deposit area, were flagged to be eligible for Indicated Mineral Resource categorization. These blocks were then reviewed spatially with respect to continuity, domain assignment, and confidence in the geological interpretation. Discrete volumes were generated for areas supporting sufficient geological confidence and demonstrating reasonable continuity. Blocks occurring within the category domains and within the optimized pit shell were designated Indicated Mineral Resources and blocks occurring outside the category domains and within the optimized pit shell were designated Inferred Mineral Resources. A 5 m layer at the top of main horizon at the Pit Zone was assigned Inferred due to uncertainty with the historical Orrwell pit depth.

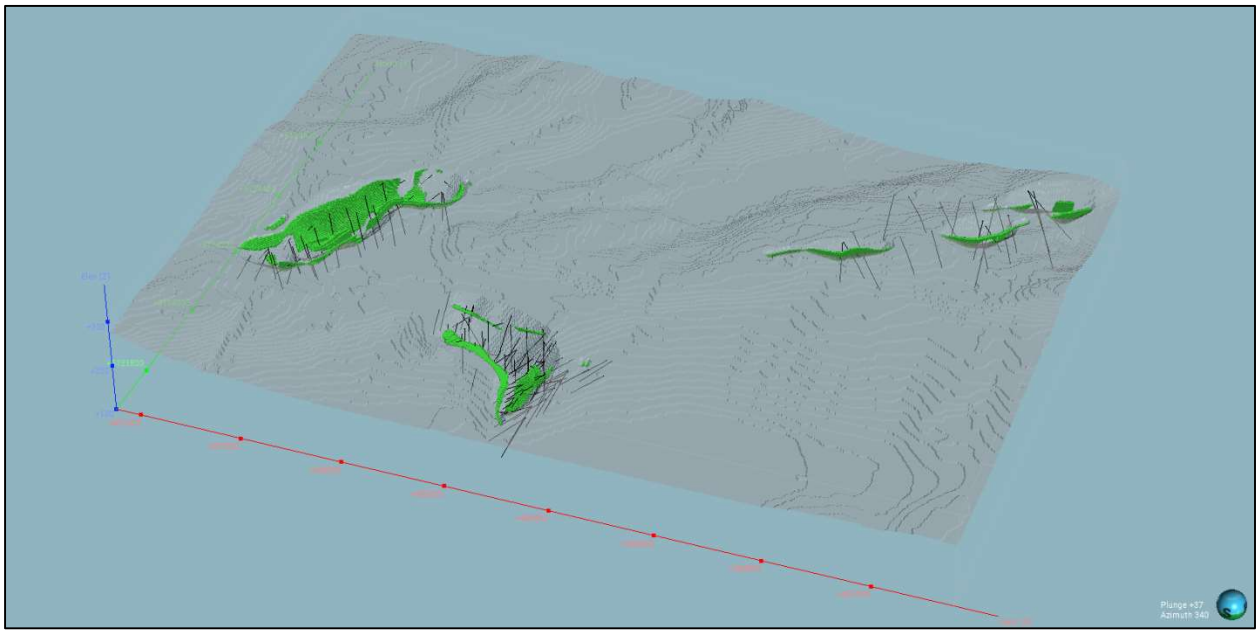
Distribution of the Mineral Resource category with respect to the optimized pit shells is presented in Figures 14-36 through 14-38.

Figure 14-36: Isometric view to the northwest of Indicated Mineral Resources at the LAB deposit



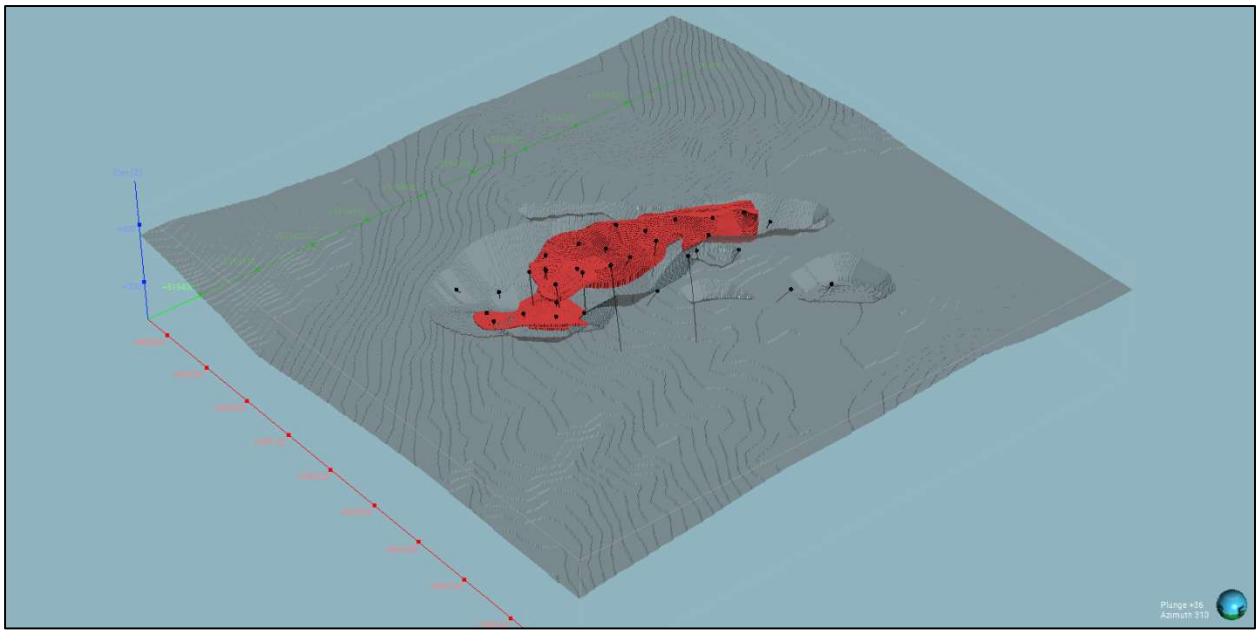
(Mercator 2025)

Figure 14-37: Isometric view to the northwest of Inferred Mineral Resources at the LAB deposit



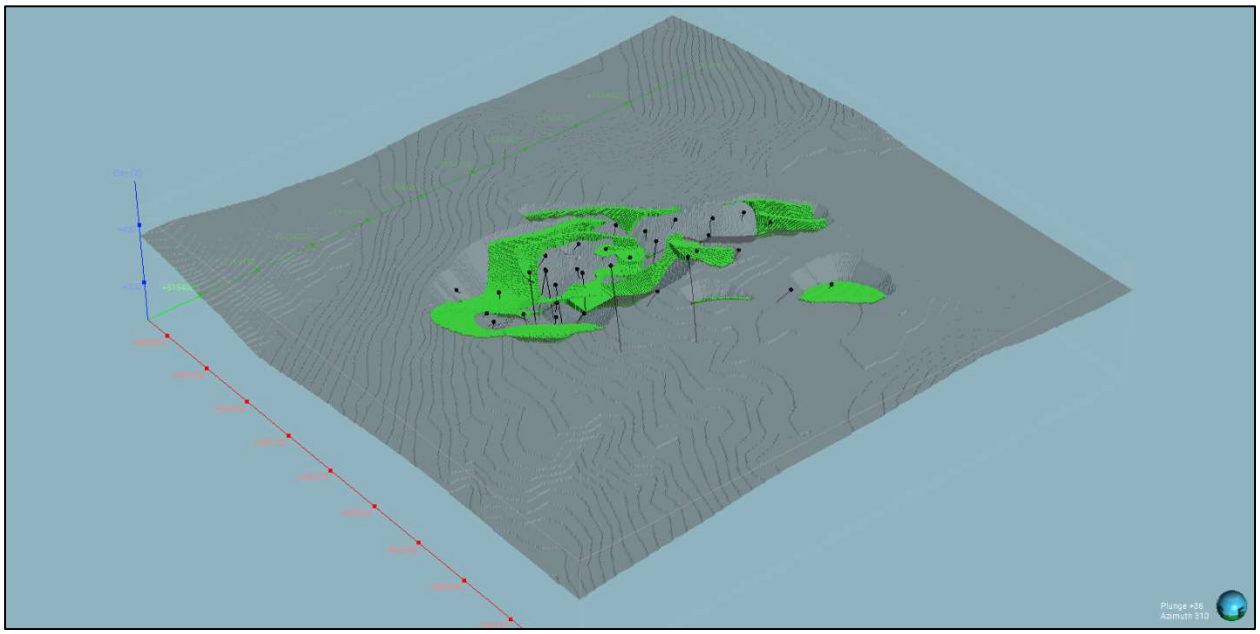
(Mercator 2025)

Figure 14-38: Isometric view to the northwest of Indicated Mineral Resources at the Standard deposit



(Mercator 2025)

Figure 14-39: Isometric view to the northwest of Inferred Mineral Resources at the Standard deposit



(Mercator)

14.7 Statement of Mineral Resources

Block grade, block density and block volume parameters for the Mineral Project were estimated using methods described in preceding sections of this Technical Report. Subsequent application of Mineral Resource category parameters resulted in the MRE presented below in Table 14-8. The MRE is reported at a cut-off grade of 3.0% Cg within the optimized pit shell and is considered to reflect reasonable prospects for economic extraction using open-pit mining methods.

Table 14-8: Lac Saguay Graphite Project Mineral Resource Estimate – Effective Date: July 15, 2025

Deposit	Zone	Category	Tonnes	Cg (%)
Lac-Aux-Bouleaux	Pit Zone	Indicated	250,000	8.96
		Inferred	100,000	7.28
	Zone 1	Indicated	70,000	5.92
		Inferred	120,000	5.81
	Zone 3	Indicated	370,000	7.76
		Inferred	380,000	6.89
Standard	Standard	Indicated	950,000	6.27
		Inferred	980,000	7.16
Total		Indicated	1,640,000	7.00
		Inferred	1,580,000	7.00

Mineral Resource Notes:

1) Mineral Resources were prepared in accordance with the CIM Definition Standards for Mineral Resources and Mineral Reserves (MRMR) (2014) and CIM MRMR Best Practice Guidelines (2019).
2) Graphitic carbon (Cg %) grade was estimated from 1.5 m downhole assay composites using ID^2 interpolation. Variable capping was applied.
3) Lac-Aux-Bouleaux model block size is 5 m (x) by 5 m (y) by 6 m (z) with 4 units of sub-blocking and Standard model block size is 4 m (x) by 4 m (y) by 4 m (z) with 4 units of sub-blocking.
4) Bulk density of 2.80 g/cm^3 was applied to all mineralized domains.
5) Mineral Resources are defined within an optimized pit shell with an average slope angle of 45^o and an overall strip ratio of 4.73:1 (waste : mineralized material)
6) Parameters used in pit optimization include a long-term average graphite flake concentrate market price of $0.99/lb ($USD1,500/t), an overall metallurgical recovery of 90%, and costs at $4.50/t mining, $30/t processing, $12/t G&A, and $22/t transportation. All prices are CDN unless otherwise specified using an exchange rate of 1.35 CDN : USD.
7) Mineral Resources are reported at a cut-off grade of 3.0% Cg with the optimized pit shell and define reasonable prospects for eventual economic extraction by open pit mining methods.
8) Mineral Resources may be materially affected by environmental, permitting, legal, title, taxation, sociopolitical, marketing, or other relevant issues.
9) Mineral Resources are not Mineral Reserves and do not have demonstrated economic viability.
10) Mineral Resource tonnages are rounded to the nearest 10,000. Contained Cg is rounded to the nearest 1,000.

14.8 Project Risks That Pertain to the Mineral Resource Estimate

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

- Changes to the long-term graphite price assumptions including unforeseen long-term negative market pricing trends.
- Changes to the input values for mining, processing, and G&A costs to constrain the Mineral Resource.
- Changes to metallurgical recovery assumptions including metallurgical recoveries that fall outside economically acceptable ranges. Early-stage testwork completed returned less than optimal recoveries from some of the samples, interpreted to be associated with over grinding.
- Changes to the interpretations of mineralization geometry and continuity. Mineralization can be associated with isoclinal folds and boudinages that are difficult to define. The orientation and overall intensity of intrusive dykes are not fully understood in all deposit zones.
- Inaccuracies of deposit modelling and grade estimation programs with respect to actual metal grades and tonnages contained within the deposit.
- Mineral Resource density is assigned as a constant value and does not accurately represent local variability.
- The Pit Zone Mineral Resource is predominantly based on historical drilling that may not have been subject to current industry best practices and QAQC protocols. Graphano has drilled 4 verification drilled holes and 1 exploration drill hole to help mitigate this risk.
- Variations in geotechnical, hydrological, and mining assumptions.
- Changes in the assumptions of marketability of the final product.
- Issues with respect to mineral tenure, land access, land ownership, environmental conditions, permitting, and social license.

At this time, the QP does not foresee any significant risks and uncertainties that could reasonably be expected to affect the reliability or confidence in the drilling information and MRE disclosed in this Technical Report.

15.0 MINERAL RESERVE ESTIMATES

This Section is not relevant to this Technical Report.

16.0 MINING METHOD

This Section is not relevant to this Technical Report.

17.0 RECOVERY METHODS

This Section is not relevant to this Technical Report.

18.0 PROJECT INFRASTRUCTURE

This Section is not relevant to this Technical Report.

19.0 MARKET STUDIES AND CONTRACTS

This Section is not relevant to this Technical Report.

20.0 ENVIRONMENTAL STUDIES, PERMITTING, AND SOCIAL OR COMMUNITY IMPACT

This Section is not relevant to this Technical Report.

21.0 CAPITAL AND OPERATING COSTS

This Section is not relevant to this Technical Report.

22.0 ECONOMIC ANALYSIS

This Section is not relevant to this Technical Report.

23.0 ADJACENT PROPERTIES

The LDI operated by NGC is adjacent to the LAB Property. A Mineral Resource was disclosed for the LDI with an effective date of December 31, 2023 (SLR 2024). Graphite mineralization at LDI is described to be hosted in a strongly folded marble unit within a paragneiss. This information is disclosed in the document "Technical Report on the Lac-des-îles Mine, Québec, Canada prepared by SLR for Northern Graphite Corporation, effective date December 31, 2023".

NGC and Graphano entered into a strategic collaboration agreement as disclosed by Graphano on April 2, 2025.

The QP has not independently verified the information for this adjacent property, and the information is not necessarily indicative of the mineralization on the Mineral Project that is the subject of this Technical Report.

There are no other adjacent properties considered to be material to the Mineral Project.

24.0 OTHER RELEVANT DATA AND INFORMATION

This Section is not relevant to this Technical Report.

25.0 INTERPRETATION AND CONCLUSIONS

The QP notes the following interpretations and conclusions based on the review of data available for this Technical Report.

25.1 Mineral Tenure, Surface Rights, and Royalties

The Mineral Project is in western Québec and is comprised of 130 EER totalling 6,714 ha (67.14 km^2) from 3 properties, LAB, Standard, and Black Pearl. Graphano holds a 100% interest in the Mineral Project. A 2% NSR is present on the EERs that comprise the Standard Property. Graphano provided information pertaining to the mineral tenure and property agreements that supports the assumptions used in this Technical Report.

25.2 Geology and Mineralization

The Mineral Project is underlain by the CMB of the Grenville Province, which is comprised of Mesoproterozoic supracrustal and intrusive upper amphibolite- to granulite-facies rocks. At the property scale these have commonly been grouped as quartzite, paragneiss, recrystalized limestone and/or marble, migmatites, amphibolites, and metamorphic pyroxenites. Stratigraphically these rocks occur in varying and alternating sequences and are intruded primarily by granites and syenites and more rarely by diorites, gabbro, and ultrabasic dykes. Pleistocene age unconsolidated deposits are widespread in the region and overly the Mineral Project

Large flake graphite mineralization is hosted in a strongly folded recrystalized limestone - marble unit as part of a predominantly paragneiss and quartzite sequence. Ductile deformation of the recrystalized limestone - marble is thought to result in repetition of the mineralized horizons with enrichment of graphite mineralization in fold noses. This deformation also results in boudinage structures and thereby influencing depth and continuity at which graphitic mineralization occurs. The sequence also underwent several phases of brittle deformation that are primarily defined as a set of north-south normal faults dipping to the west and a second set of sinistral east-west faults. Faulting can disrupt continuity of mineralization both locally and regionally.

25.3 Exploration

Graphano has generally applied a systematic exploration methodology that progresses from geophysical surveys and prospecting, to trenching and channel sampling, and finally diamond drilling and core sampling.

At the LAB Property, Graphano has conducted several trenching programs followed by diamond drilling. Between 2022 and 2024 a total of 69 drill holes for 5,672.79 m have been completed.

At the Standard Property, Graphano conducted an airborne TDEM survey in 2022. Anomalies from this program were first investigated by trenching and followed up by diamond drilling. Between 2022 and 2023 Graphano completed 33 drill holes for 3,148.52 m.

At the Black Pearl Property, Graphano has conducted ground EM surveys (Max-Min II and VLF-EM) and trenching programs. Channel sample assay results ranged from 0.06% Cg to 21.9% Cg over a 1 m sample length, with 57% (24 of the 42 samples) of the samples assaying greater than 15% Cg. True widths of mineralization are not known. No drilling has been completed to date.

Graphano drill program procedures are consistent with industry standards. Sampling, logging, core recovery and collar and downhole survey data collected are consistent with industry standards. Independent, accredited laboratories prepared samples and conducted analytical methods for graphitic carbon. The QP reviewed the results of the QAQC program and did not identify any systematic issues within the analytical dataset. As part of the site visit completed, the QP confirmed the presence of graphite in drill core and that it is accurately reflected in drill logs, that QAQC and security procedures are implemented at the core logging facility, and collected IW samples for check sampling.

25.4 Metallurgy and Processing

Graphano initiated a test program in November 2023 to evaluate the amenability of processing material from different zones containing ~5.45 - 7.00% graphite to produce saleable products of graphite using flotation. Testwork was completed by SGS and included sample characterization including chemical and mineralogical analyses as well as flotation tests. Four samples representing four different zones totaling 60 kg were obtained from the LAB and Standard properties and shipped to SGS. A summary of the head grade, final concentrate grade, and recovery to concentrate for each sample tested is presented in Table 24-1.

Table 25-1: Summary Head Grade, Final Concentrate Grade and Recovery to Concentrate

Sample Code	Zone Info	Head Grade (%)				Final Grade	Recovery
		C(t) %	C(g) %	TIC %	TOC %	C(g) %	%
1	LB22-30 LB 18-03	12.1	6.89	4.94	7.20	74.9	94.0
2	LB22-32 LB22-46 LB22-48	9.14	7.00	1.97	7.17	72.9	81.5
3	LB22-18 LB22-23 LB22-26	8.60	5.45	3.06	5.53	60.0	83.2
4	ST23-08 ST23-09 ST23-10	9.47	6.06	3.48	5.99	93.7	92.5

The received samples contained between 5.45% to 7% graphitic carbon and the gangue include calcite (18.9-39.4%), diopside (9.4-15.9%), quartz (5.2-22.2%), orthoclase (6-10.2%), and meionite (4.2-11.1%).

The mineralogical analysis showed that, at 3.35 mm, 65%, 78%, 84%, and 86% of the graphite is liberated, in samples 1, 2, 3, and 4, respectively, 11-28% is exposed, and 3-9% is locked. Graphite grains show two dominant grain sizes: coarse grains ranging from 50 µm to ~500 µm in length, and fine grains ranging from <10 µm to ~50 µm.

Of the flotation tests completed, test F2 on sample 4 achieved the best results, preferentially recovering 92.5% of the graphite (Cg) at 93.7% grade and sample 3 showed the worst results with recovering 83.2% of the graphite (Cg) at 60% grade.

25.5 Mineral Resources Estimates

Mineral Resources were estimated in conformity with CIM MRMR Best Practice Guidelines. Mineral Resources are not Mineral Reserves and do not have demonstrated economic viability.

The Mineral Project MRE is comprised of two different deposits, the LAB deposit, consisting of the Pit Zone, Zone 1, and Zone 3, and the Standard deposit. A validated drill hole database was developed for the Mineral Project. The two deposits were subsequently treated separately in all phases of block model construction. The following summarizes the estimation methodology:

- Drill hole database validation;
- 3D modelling of geology and mineralization;
- Assay sample and geostatistical analysis including sample frequency, grade relationships, density assignment, capping, compositing and variography;
- Block modelling and grade estimation;
- Block model validation;
- Assessment of reasonable prospects for eventual economic extraction;
- Mineral Resource classification;
- and Mineral Resource reporting.

Mineralization modelling is based on stratigraphy, host lithology, and graphite occurrence, which can, in general, be well corelated between drill hole sections. Mineral Resource classification is based on drill hole spacing, interpolation pass and confidence in the geological model. The Mineral Project MRE is presented in Table 25.2.

Table 25-2: Lac Saguay Graphite Project Mineral Resource Estimate – Effective Date: July 15, 2025

Deposit	Zone	Category	Tonnes	Cg (%)
Lac-Aux-Bouleaux	Pit Zone	Indicated	250,000	8.96
		Inferred	100,000	7.28
	Zone 1	Indicated	70,000	5.92
		Inferred	120,000	5.81
	Zone 3	Indicated	370,000	7.76
		Inferred	380,000	6.89
Standard	Standard	Indicated	950,000	6.27
		Inferred	980,000	7.16
Total		Indicated	1,640,000	7.00
		Inferred	1,580,000	7.00

Mineral Resource Notes:
1) Mineral Resources were prepared in accordance with the CIM Definition Standards for Mineral Resources and Mineral Reserves (MRMR) (2014) and CIM MRMR Best Practice Guidelines (2019).
2) Graphitic carbon (Cg %) grade was estimated from 1.5 m downhole assay composites using ID^2 interpolation. Variable capping was applied.
3) Lac-Aux-Bouleaux model block size is 5 m (x) by 5 m (y) by 6 m (z) with 4 units of sub-blocking and Standard model block size is 4 m (x) by 4 m (y) by 4 m (z) with 4 units of sub-blocking.
4) Bulk density of 2.80 g/cm^3 was applied to all mineralized domains.
5) Mineral Resources are defined within an optimized pit shell with an average slope angle of 45^o and an overall strip ratio of 4.73:1 (waste : mineralized material)
6) Parameters used in pit optimization include a long-term average graphite flake concentrate market price of $0.99/lb ($USD1,500/t), an overall metallurgical recovery of 90%, and costs at $4.50/t mining, $30/t processing, $12/t G&A, and $22/t transportation. All prices are CDN unless otherwise specified using an exchange rate of 1.35 CDN : USD.
7) Mineral Resources are reported at a cut-off grade of 3.0% Cg with the optimized pit shell and define reasonable prospects for eventual economic extraction by open pit mining methods.
8) Mineral Resources may be materially affected by environmental, permitting, legal, title, taxation, sociopolitical, marketing, or other relevant issues.
9) Mineral Resources are not Mineral Reserves and do not have demonstrated economic viability.
10) Mineral Resource tonnages are rounded to the nearest 10,000. Contained Cg is rounded to the nearest 1,000.

25.6 Opportunities

- A substantial volume of graphite mineralization associated with the Mineral Project has been defined by Graphano through various drill programs that did not qualify for Mineral Resources. Future MREs and economic studies that reflect changes in metal prices and costing parameters have the potential to include some of this mineralization.
- Exploration opportunities are present proximal to current Mineral Resources and deposits remain open.
- Continued geological and structural interpretation at LAB Zone 4 may present new diamond drilling opportunities.

- The Black Pearl property and LAB Zones 5, 7, and 8 remain mostly untested by diamond drilling.
- Graphano's collaboration agreement with NGC (News Release April 2, 2025) will assist in advancing the Mineral Project

25.7 Risks

Mineral Project risks that pertain specifically to the Mineral Resource include:

- Changes to the long-term graphite price assumptions including unforeseen long-term negative market pricing trends.
- Changes to the input values for mining, processing, and G&A costs to constrain the Mineral Resource.
- Changes to metallurgical recovery assumptions including metallurgical recoveries that fall outside economically acceptable ranges. Early-stage testwork completed returned less than optimal recoveries from some of the samples, interpreted to be associated with over grinding.
- Changes to the interpretations of mineralization geometry and continuity. Mineralization can be associated with isoclinal folds and boudinages that are difficult to define. The orientation and overall intensity of intrusive dykes are not fully understood in all deposit zones.
- Inaccuracies of deposit modelling and grade estimation programs with respect to actual metal grades and tonnages contained within the deposit.
- Mineral Resource density is assigned as a constant value and does not accurately represent local variability.
- The Pit Zone Mineral Resource is predominantly based on historical drilling that may not have been subject to current industry best practices and QAQC protocols. Graphano has drilled 4 verification drill holes and 1 exploration drill hole to help mitigate this risk.
- Variations in geotechnical, hydrological, and mining assumptions.
- Changes in the assumptions of marketability of the final product.
- Issues with respect to mineral tenure, land access, land ownership, environmental conditions, permitting, and social license.

Additional Project risks include:

- Interpretation of the property agreements may differ to what has been assumed for the purpose of this Technical Report.

At this time, the QP does not foresee any significant risks and uncertainties that could reasonably be expected to affect the reliability or confidence in the drilling information and MRE disclosed in this Technical Report.

26.0 RECOMMENDATIONS

A two-phase program is recommended. Phase I reflects exploration drilling, metallurgical testwork, structural studies, and an updated MRE. Phase II supports a PEA level study, base line environmental and tailings disposal studies, and geotechnical studies. Strategies and approaches for completion of the PEA would be conditional to positive results from Phase I.

26.1 Phase 1

26.1.1 Exploration Drill Programs

A diamond drill program of 5,000 m is recommended. This can be divided into:

- 2000 m directed towards exploration programs for the Black Pearl Property and Zones 5, 7, and 8 of the LAB Property.
- 2,500 m directed towards increasing confidence in Inferred Mineral Resources to Indicated Mineral Resources and the definition of new Mineral Resources.
- 500 m to obtain material for metallurgical testwork.

As part of the exploration drill program re-surveying the channel samples and a comprehensive density determination program should be completed.

It is also recommended that an additional CRM be added to the QAQC program to better test all grade ranges.

26.1.2 Metalurigcal Testwork

Metallurgical testwork is required to further develop the flowsheet and optimize metallurgical performance. The program should include recommendations from the SGS 2024 program to further optimize the rougher flotation and cleaner floatation circuits.

26.1.3 Structural Studies

It is recommended that the exposed trenches be fully mapped and a full site structural assessment on the controls of mineralization be completed.

26.1.4 Mineral Resource Estimate

An updated MRE will provide guidance if the Mineral Project should advance to Phase II and a PEA level study.

26.2 Phase 2

It is recommended to complete baseline environmental studies, tailings disposal studies, and geotechnical studies as part of the Phase II program as part of a PEA.

26.2.1 Estimated Budget for Recommended Work Programs

Estimated costs for completing work recommended in this Section is summarized in Table 26-1.

Table 26-1: Recommended work programs estimated costs

Phase I - Exploration	**Estimated Cost ($CDN)**
Exploration Drill Program	1,000,000
Metallurgical Test work	150,000
Structural Study	50,000
MRE	75,000
Sub-Total	**1,275,000**
Phase II - PEA	
Environmental baseline and tailings disposal studies	100,000
Initial geotechnical studies and associated drilling	150,000
Completion of PEA	200,000
Sub-Total	**450,000**
Grand Total	**1,725,000**

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