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# NI 43-101 Technical Report and Mineral Resource Estimate Update for the La Loutre Project, Quebec, Canada



Lomiko Metals Inc. #439 – 7184 120<sup>th</sup> Street Surrey, BC, Canada V3W 0M6

Project Location Latitude: 46°00' North; Longitude: 75°00' West Province of Quebec, Canada

#### Prepared by:

Marina lund, P.Geo., M.Sc. Martin Perron, P.Eng. Simon Boudreau, P.Eng.

InnovExplo Inc. Val-d'Or (Quebec) Pierre Roy, P.Eng.

Soutex Inc. Quebec City (Quebec)

Effective Date: May 11, 2023 Signature Date: May 26, 2023



SIGNATURE PAGE – INNOVEXPLO

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Effective Date: May 11, 2023

(Original signed and sealed)

Signed at Quebec City on May 26, 2023

Marina lund, P.Geo., M.Sc. InnovExplo Inc. **Quebec City (Quebec)** 

(Original signed and sealed)

Martin Perron, P.Eng. InnovExplo Inc. Quebec City (Quebec)

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Simon Boudreau, P.Eng. InnovExplo Inc. Trois-Rivières (Quebec) Signed at Quebec City on May 26, 2023

Signed at Trois-Rivières on May 26, 2023



PAGE - SOUTEX INC.

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Prepared for



Lomiko Metals Inc. #439, 7184 120<sup>th</sup> Street Surrey, BC, Canada V3W 0M6

Project Location Latitude: 46°00' North; Longitude: 75°00' West Province of Quebec, Canada

Effective Date: May 11, 2023

(Original signed and sealed)

Pierre Roy, P.Eng. Soutex Inc. Québec (Québec) Signed at Quebec City on May 26, 2023



# **CERTIFICATE OF AUTHOR – MARINA IUND**

I, Marina lund, P.Geo., M.Sc. (OGQ No. 1525, NAPEG No. L4431, PGO, No. 3123), do hereby certify that:

- 1. I am employed as Senior Geologist, Mineral Resource Estimation by InnovExplo Inc., located at 725, Boul. Lebourgneuf, Suite 312, Quebec, QC, Canada, G2J 0C4.
- 2. This certificate applies to the report entitled "NI 43-101 Technical Report and Mineral Resource Estimate Update for the La Loutre Project, Quebec, Canada" (the "Technical Report") with an effective date of May 11, 2023, and signature date of May 26, 2023. The Technical Report was prepared for Lomiko Metals Inc. (the "issuer").
- 3. I graduated with a Bachelor's degree in Geology from Université de Besançon (Besançon, France) in 2008. In addition, I obtained a Master's degree in Resources and Geodynamics from Université d'Orléans (Orléans, France), as well as a DESS degree in Exploration and Management of Non-Renewable Resources from Université du Quebec à Montreal (Montreal, Quebec) in 2010.
- I am a member of the Ordre des Géologues du Québec (OGQ No. 1525), the Association of Professional Geoscientists of Ontario (PGO, No. 3123), and the Northwest Territories and Nunavut Association of Professional Engineers and Professional Geoscientists (NAPEG licence No. L4431).
- 5. I have practiced my profession in mineral exploration, mine geology and resource geology for a total of 13 years since graduating from university. I acquired my expertise with Richmont Mines Inc. and Goldcorp. I have been a project geologist and then a senior geologist in mineral resources estimation for InnovExplo Inc. since September 2018.
- 6. I have read the definition of a qualified person ("QP") set out in Regulation 43-101/National Instrument 43-101 ("NI 43-101") and certify that by reason of my education, affiliation with a professional association (as defined in NI 43-101) and past relevant work experience, I fulfill the requirements to be a QP for the purposes of NI 43-101.
- 7. I visited the property that is the subject of this report on July 27 and July 28, 2022, for the purpose of this Technical Report.
- 8. I am the principal author and assume responsibility for item 12. I am a co-author of and share responsibility for all other items except 13.
- 9. I confirm that I am independent of the issuer, having applied the test in section 1.5 of NI 43-101.
- 10. I have had no prior involvement with the property that is the subject of the Technical Report.
- 11. I have read NI 43-101, and the items of the Technical Report I am responsible for have been prepared in compliance with that instrument.
- 12. As of the effective date of the Technical Report, to the best of my knowledge, information and belief, the sections of the Technical Report for which I am responsible contain all scientific and technical information that is required to be disclosed to make the Technical Report not misleading.

Signed this 26<sup>th</sup> day of May 2023 in Quebec City, Quebec, Canada.

(Original signed and sealed)

Marina lund, P.Geo. (OGQ No. 1525), M.Sc.

InnovExplo Inc.

Marina.iund@innovexplo.com



## **CERTIFICATE OF AUTHOR – MARTIN PERRON**

I, Martin Perron, P.Eng. (OIQ No.109185), do hereby certify that:

- 1. I am employed by InnovExplo Inc. at 725, Boulevard Lebourgneuf, Suite 317, Québec City, Québec, Canada, G2J 0C4.
- This certificate applies to the report entitled "NI 43-101 Technical Report and Mineral Resource Estimate Update for the La Loutre Project, Quebec, Canada" (the "Technical Report") with an effective date of May 11, 2023, and signature date of May 26, 2023. The Technical Report was prepared for Lomiko Metals Inc. (the "issuer").
- 3. I graduated with a Bachelor's degree in Geological Engineering from Université du Québec A Chicoutimi (UQAC, Ville de Saguenay, Québec) in 1992.
- 4. I am a member of the Ordre des Ingénieurs du Québec (OIQ No. 109185).
- 5. I have practiced my profession in mining geology, mineral exploration, consultation and resource estimation, mainly in gold, base metals and potash, and accessory in graphite and rare earth elements for a total of twenty-nine (29) years since graduating from university. My expertise was acquired while working with Cambior, Breakwater Resources, Genivar, Alexis Minerals, Richmont Mines, Agrium, Roche, Goldcorp and IAMGOLD. I am the Director of Geology for InnovExplo since October 2021.
- 6. I have read the definition of a qualified person ("QP") set out in Regulation 43-101/National Instrument 43-101 ("NI 43-101") and certify that by reason of my education, affiliation with a professional association (as defined in NI 43-101) and past relevant work experience, I fulfill the requirements to be a QP for the purposes of NI 43-101.
- 7. I have not visited the Property for the purpose of the Technical Report.
- 8. I am a co-author of and share responsibility for all items except 12 and 13.
- 9. I confirm that I am independent of the issuer, having applied the test in section 1.5 of NI 43-101.
- 10. I have not had prior involvement with the Property that is the subject of the Technical Report.
- 11. I have read NI 43-101, and the items of the Technical Report I am responsible for have been prepared in compliance with that instrument.
- 12. As of the effective date of the Technical Report, to the best of my knowledge, information and belief, the sections of the Technical Report for which I am responsible contain all scientific and technical information that is required to be disclosed to make the Technical Report not misleading.

Signed this 26<sup>th</sup> day of May 2023 in Quebec City, Quebec, Canada.

(Original signed and sealed)

Martin Perron, P.Eng. (OIQ, #109185) InnovExplo Inc.

martin.perron@innovexplo.com



# **CERTIFICATE OF AUTHOR – SIMON BOUDREAU**

I, Simon Boudreau, P. Eng. (OIQ No.132 338, NAPEG No. L5047), do hereby certify that:

- 1. I am a Professional Engineer employed as Senior Mining Engineer with the firm InnovExplo Inc., located at 560 3<sup>e</sup> Avenue, Val-d'Or, Québec, Canada, J9P 1S4.
- This certificate applies to the report entitled "NI 43-101 Technical Report and Mineral Resource Estimate Update for the La Loutre Project, Quebec, Canada" (the "Technical Report") with an effective date of May 11, 2023, and signature date of May 26, 2023. The Technical Report was prepared for Lomiko Metals Inc. (the "issuer").
- 3. I graduated with a Bachelor's degree in mining engineering from Université Laval (Québec, Québec) in 2003.
- I am a member in good standing of the Ordre des Ingénieurs du Québec (No:132338) and the Northwest Territories and Nunavut Association of Professional Engineers and Geoscientists (NAPEG No. L5047).
- 5. My relevant experience includes a total of nineteen (19) years since my graduation from university. I have been involved in mine engineering and production at Troilus mine for four (4) years, HRG's Taparko mine for four (4) years, and Dumas Contracting for three (3) years. I have also worked as an independent consultant for the mining industry for five (5) years and with InnovExplo for three (3) years. As a consultant, I have been involved in many base metals and gold mining projects.
- 6. I have read the definition of "qualified person" set out in the NI 43-101 Standards of Disclosure for Mineral Projects ("NI 43-101") and certify that, by reason of my education, affiliation with a professional association and past relevant work experience, I fulfill the requirements to be a qualified person for the purposes of NI 43-101.
- 7. I have not visited the property for the purpose of this Technical Report.
- 8. I am a co-author of and share responsibility for items 1, 14 and 26.
- 9. I confirm that I am independent of the issuer, having applied the test in section 1.5 of NI 43-101.
- 10. I have not had prior involvement with the Property that is the subject of the Technical Report.
- 11. I have read NI 43 101, and the items of the Technical Report I am responsible for have been prepared in compliance with that instrument.
- 12. As of the effective date of the Technical Report, to the best of my knowledge, information and belief, the sections of the Technical Report for which I am responsible contain all scientific and technical information that is required to be disclosed to make the Technical Report not misleading.

Signed this 26<sup>th</sup> day of May 2023 in Val-d'Or, Québec, Canada.

(Original signed and sealed)

Simon Boudreau, P.Eng. InnovExplo Inc.

simon.boudreau@innovexplo.com



### **CERTIFICATE OF AUTHOR – PIERRE ROY**

I, Pierre Roy, P.Eng. (OIQ No. 45201) do hereby certify that:

- 1. I am an engineer with Soutex Inc. located at 1990 rue Cyrille-Duquet, Local 204, Québec, Qc, G1N 4K8, Canada.
- This certificate applies to the report entitled "NI 43-101 Technical Report and Mineral Resource Estimate Update for the La Loutre Project, Quebec, Canada" (the "Technical Report") with an effective date of May 11, 2023, and signature date of May 26, 2023. The Technical Report was prepared for Lomiko Metals Inc. (the "issuer").
- 3. I am a graduate of Université Laval (Québec, Québec, Canada) with a B.Sc. in Mining Engineering in 1986, and a M.Sc. in Mining in 1989.
- 4. I am a Professional Engineer registered with the Ordre des Ingénieurs du Québec (OIQ Licence: 45201), Professional Engineer registered with the Professional Engineers of Ontario (PEO Licence: 100110987.
- 5. I have practiced my profession continuously in the mining industry since my graduation from university. I have been involved in mining operations, engineering and financial evaluations for 35 years. During this time, I have been involved in mineral processing and environmental coordination at the Kiena mine for six (6) years and the Troilus mine for nine (9) years. I have also worked as a consultant for the mineral processing industry for two (2) years at CRM in Québec City and with Soutex Inc. in Québec City for eighteen (18) years. As a consultant, I have been involved in many projects in graphite, base metal and gold mining sectors.
- 6. I have read the definition of a qualified person ("QP") set out in Regulation 43-101/National Instrument 43-101 ("NI 43-101") and certify that by reason of my education, affiliation with a professional association (as defined in NI 43-101) and past relevant work experience, I fulfill the requirements to be a QP for the purposes of NI 43-101.
- 7. I have not visited the Property for the purpose of the Technical Report.
- 8. I am the principal author and assume responsibility for item 13. I am a co-author of and share responsibility for items 1 and 26.
- 9. I confirm that I am independent of the issuer, having applied the test in section 1.5 of NI 43-101.
- 10. I have not had prior involvement with the Property that is the subject of the Technical Report.
- 11. I have read NI 43-101 and the items of the Technical Report for which I am responsible have been prepared in compliance with that instrument.
- 12. As of the effective date of the Technical Report, to the best of my knowledge, information and belief, the sections of the Technical Report for which I am responsible contain all scientific and technical information that is required to be disclosed to make the Technical Report not misleading.

Signed this 26<sup>th</sup> day of May 2023 in Quebec City, Quebec, Canada.

(Original signed and sealed)

Pierre Roy, P.Eng. (OIQ 45201)

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#### 1. SUMMARY

#### Introduction

Lomiko Metals Inc. ("Lomiko" or the "issuer") retained InnovExplo Inc. ("InnovExplo") to prepare an updated independent mineral resource estimate (the "2023 MRE") and a supporting technical report (the "Technical Report") for the La Loutre Project (the "Project" or the "Property") located in the province of Quebec, Canada.

The issuer is engaged in the acquisition, exploration and development of mineral resource properties at the exploration and evaluation stage. Lomiko's shares are listed on the Toronto Venture Exchange ("TSXV") under the symbol LMR as a Tier 2 mining issuer, the Over-the-Counter Markets Exchange ("OTC") in the United States under the symbol LMRMF, and the Frankfurt Stock Exchange under the symbol DH8C.

InnovExplo is an independent mining and exploration consulting firm based in Val-d'Or, Quebec, Canada.

This Technical Report was prepared in accordance with Canadian Securities Administrators' National Instrument 43-101 Respecting Standards of Disclosure for Mineral Projects ("NI 43-101") and Form 43-101F1.

The 2023 MRE follows the 2014 CIM Definition Standards on Mineral Resources and Mineral Reserves ("CIM Definition Standards") and the 2019 CIM Estimation of Mineral Resources & Mineral Reserves Best Practice Guidelines ("CIM Guidelines").

#### **Property Description and Location**

The Property is located in the Laurentides administrative region (a.k.a., the Laurentians) in Quebec, Canada. It is approximately 30 km west-southwest of the city of Mont-Tremblant. The Property is approximately 180 km northwest of Montreal, which can be accessed via Highway A15, Highway 117 and Highway 327.

The Property comprises one large block of 76 claims, covering an aggregate area of 4,527.97 ha, with 100% of minerals rights owned by Lomiko. Forty-two (42) are subject to a 1.5% NSR royalty.

#### **Geological Setting and Mineralization**

The Property is located in the eastern part of the Central Metasedimentary Belt ("CMB"). The CMB in the western Grenville Province extends southward from western Quebec into Ontario and New York State. In Quebec, the CMB includes Mesoproterozoic supracrustal and intrusive upper amphibolite- to granulite-facies rocks metamorphosed between 1.2 and 1.18 Ga.

The Property is located within the Nominingue-Cheneville Deformation Zone ("NCDZ"), a 10-km-wide ductile shear zone at amphibolite facies with lit-par-lit injections of monzonite and diorite among Mesoproterozoic porphyroclastic paragneiss. The NCDZ is a N-S zone dipping steeply to the west. This corridor comprises discontinuous anastomosing shear zones with a sinistral or eastward-thrusting sense of movement.

At the property scale, the stratigraphic sequence consists of a thick paragneiss unit intercalated with thin units of quartzite and marble. The mineralized domains are mainly



located in the paragneiss and follow the stratigraphy. Graphite flakes are disseminated in the graphitic paragneiss in variable concentrations.

Two deposits have been identified on the Property, the Battery and the EV deposits. The bedding is oriented N160° at the Battery deposit and dips 20 to 45° to the south. At the EV deposit, bedding is oriented N130° and dips 20 to 35° to the south. Two NW-SE faults pass between the deposits. The mineralized domains are wide (10 to 150 m) and reach up to 1,000 m in strike length.

Tight, isoclinal, multi-decametric folds deform the geological units. At the Battery deposit, the folded units appear sub-parallel and mainly straight. At the EV deposit, the folding is more complex as the defined part of the deposit occurs in the upper hinges of the folds.

The mineralized zones on the Property belong to the crystalline flake graphite deposit type.

#### **Mineral Resource Estimates**

The mineral resource estimate for the La Loutre Project (the "2023 MRE") was prepared by Marina lund, P.Geo. (InnovExplo), Martin Perron, P.Eng. (InnovExplo), Simon Boudreau, P.Eng. (InnovExplo) and Pierre Roy, P.Eng. (Soutex) using all available information. The study area covers two deposits known as EV and Battery. The effective date of the 2023 MRE is May 11, 2023.

The QPs believe the current mineral resource estimate can be classified as Indicated and Inferred mineral resources based on geological and grade continuity, data density, search ellipse criteria, drill hole spacing and interpolation parameters. The authors also believe that the requirement of "reasonable prospects for eventual economic extraction" has been met by having a cut-off grade based on reasonable inputs amenable to a potential open-pit extraction scenario.

The 2023 MRE is considered reliable and based on quality data and geological knowledge. The estimate follows CIM Definition Standards.

The following table displays the results of the 2023 MRE for the Project at a cut-off grade of 1.5% Cg.



Deposit	Cut-off (%)	Indicated mineral resource			Inferred mineral resource		
		Tonnage (kt)	Graphite (%)	Graphite (kt)	Tonnage (kt)	Graphite (%)	Graphite (kt)
EV	1.5	24,267	5.80	1,407	3,067	4.29	132
Battery	1.5	40,429	3.86	1,562	14,384	3.60	518
TOTAL	1.5	64,696	4.59	2,969	17,452	3.72	650

#### 2023 La Loutre Project Mineral Resource Estimate for an open pit scenario

Notes to accompany the Mineral Resource Estimate:

1. The independent and qualified persons for the mineral resource estimate, as defined by NI 43-101, are Marina lund, P.Geo. (InnovExplo Inc.), Martin Perron, P.Eng. (InnovExplo Inc.)., Simon Boudreau, P.Eng. (InnovExplo Inc.) and Pierre Roy, P.Eng. (Soutex Inc.). The effective date of the estimate is May 11, 2023.

2. These mineral resources are not mineral reserves as they do not have demonstrated economic viability. The mineral resource estimate follows current CIM Definitions (2014) and CIM MRMR Best Practice Guidelines (2019).

3. The results are presented undiluted and are considered to have reasonable prospects of economic viability.

4. The estimate encompasses two mineralized deposits (EV and Battery) using the grade of the adjacent material when assayed or a value of zero when not assayed.

5. No capping was applied on 1.5-m composites.

6. The estimate was completed using a sub-block model in Leapfrog Edge 2022 with a user block size of 5m x 5m x 5m and a minimum block size of 2.5m x 2.5m x 2.5m. Grades interpolation was obtained by ID2 using hard boundaries.

7. Bulk density values were applied by lithology (g/cm<sup>3</sup>): mineralized domain = 2.82; paragneiss = 2.8; quartzite = 2.73; pegmatite = 2.63; marble = 2.75; and overburden ("OB") = 2.0.

8. The mineral resource estimate is classified as indicated and inferred. The Indicated mineral resource category is defined with a minimum of three (3) drill holes in areas where the drill spacing is less than 55 m and reasonable geological and grade continuity have been demonstrated. The Inferred category is defined with a minimum of two (2) drill holes in areas where the drill spacing is less than 100 m and reasonable geological and grade continuity has been demonstrated. Clipping boundaries were used for classification based on those criteria.

9. The mineral resource estimate is pit-constrained with a bedrock slope angle of 50° and an overburden slope angle of 30°. It is reported at a graphite cut-off grade of 1.5%. The cut-off grade was calculated using the following parameters: processing cost = C\$13.04; product transporting cost = C\$41.16; mining cost (rock) = C\$3.70; mining cost (OB) = C\$2.90; graphite price = US\$1,098/tonne of graphite; USD:CAD exchange rate = 1.32; graphite recovery to concentrate product = 94.7%. The cut-off grade should be re-evaluated in light of future prevailing market conditions (metal prices, exchange rates, mining costs etc.).

10. The number of metric tons was rounded to the nearest thousand, following the recommendations in NI 43-101, and any discrepancies in the totals are due to rounding effects.

11. The authors are not aware of any known environmental, permitting, legal, title-related, taxation, socio-political or marketing issues or any other relevant issue not reported in the Technical Report that could materially affect the Mineral Resource Estimate.



The results of the 2023 MRE represent a 184% increase in tonnage in the Indicated mineral resources category compared to the 2021 MRE (Raponi et al., 2021). The additional 13,108 m of infill drilling in 79 holes completed in 2022, combined with the refinement of the deposit and structural models, contributed to the bulk of the resources converted from the Inferred to the Indicated category.

#### Interpretation and Conclusions

The authors conclude the following:

- The database supporting the 2023 MRE is complete, valid and up to date.
- Geological and graphite grade continuity has been demonstrated for ten (10) mineralized domains, supported by a 30-m to 100-m drilling grid.
- The key parameters of the 2023 MRE (density, capping, compositing, interpolation, search ellipsoid, etc.) are supported by data and statistical and/or geostatistical analysis.
- The 2023 MRE is classified as indicated and inferred resources.
- The 2023 MRE was prepared for a potential open-pit scenario at a cut-off grade of 1.5% Cg. The cut-off grade was calculated at a price of US\$1,043 per tonne of graphite concentrate (95% pure Cg), an exchange rate of 1.32 USD/CAD, and reasonable mining, processing and G&A costs.
- In an open-pit mining scenario, the Property contains an estimated indicated mineral resource of 64,696,000 t at 4.59% Cg for 2,969,000 t of graphite and an inferred mineral resource of 17,452,000 t at 3.72% Cg for 650,000 t of graphite.
- The results of the 2023 MRE represent a 184% increase in tonnage in the Indicated mineral resources category compared to the previous 2021 MRE (Raponi et al., 2021). The additional 13,108 m of infill drilling in 79 holes completed in 2022, combined with the refinement of the deposit and structural models, contributed to the addition of most of the Inferred Mineral Resources to the Indicated Mineral Resource category relative to the 2021 MRE.
- Based on the 2023 metallurgical test program, the La Loutre deposits appear amenable to standard graphite recovery processes. A combination of comminution and flotation processes has demonstrated that graphite recovery in the range of 94-95% is possible.
- Additional diamond drilling on multiple zones could potentially upgrade some of the inferred mineral resources to the Indicated category and add to the inferred mineral resource since most mineralized zones have not been fully explored along strike or to depth.

The authors consider the 2023 MRE to be reliable, thorough, and based on quality data, reasonable hypotheses, and parameters prepared in accordance with NI 43-101 requirements and CIM Definition Standards.



#### Recommendations

Based on the results of the 2023 MRE, the authors recommend that the Project move to an advanced phase of exploration, which would involve the preparation of a Prefeasibility Study ("PFS").

The authors recommend the following work program:

- Use the MRE to build the elements necessary for a PFS, including:
  - A preliminary mining plan;
  - A mining geotechnical study;
  - A power and access road study;
  - o A geotechnical study of the planned infrastructure sites;
  - o A study on a waste disposal facility; and
  - Environmental, hydrogeological and geochemical studies.
- Conducting exploration work to assess a possible link between both deposits and potentially increase the size of the mineralization. Those exploration works are not required for a PFS and could be performed independently from the PFS.



# 2. INTRODUCTION

#### 2.1 **Overview or Terms of Reference**

Lomiko Metals Inc. ("Lomiko" or the "issuer") retained InnovExplo Inc. ("InnovExplo") to prepare an updated independent mineral resource estimate (the "2023 MRE") and a supporting technical report (the "Technical Report") for the La Loutre Project (the "Project" or the "Property") located in the province of Quebec, Canada.

This Technical Report was prepared in accordance with Canadian Securities Administrators' National Instrument 43-101 Respecting Standards of Disclosure for Mineral Projects ("NI 43-101") and Form 43-101F1.

The issuer is engaged in the acquisition, exploration and development of mineral resource properties at the exploration and evaluation stage. The company was incorporated on July 3, 1987, under the *British Columbia Company Act*. Lomiko's shares are listed on the Toronto Venture Exchange ("TSXV") under the symbol LMR as a Tier 2 mining issuer, the Over-the-Counter Markets Exchange ("OTC") in the United States under the symbol LMRMF, and the Frankfurt Stock Exchange under the symbol DH8C. Lomiko's head office is at #439 – 7184 120<sup>th</sup> Street Surrey, British Columbia, Canada V3W 0M6.

InnovExplo is an independent mining and exploration consulting firm based in Val-d'Or, Quebec, Canada.

The 2023 MRE follows the 2014 CIM Definition Standards on Mineral Resources and Mineral Reserves ("CIM Definition Standards") and the 2019 CIM Estimation of Mineral Resources & Mineral Reserves Best Practice Guidelines ("CIM Guidelines").

#### 2.2 Report Responsibility, Qualified Persons

The list below presents the QPs for the Technical Report and the sections for which each QP is responsible:

- Marina lund, P.Geo., M.Sc. (OGQ No. 1525; PGO No. 3123; NAPEG No. L4431), Senior Resource Geologist at InnovExplo:
  - Author of item 12.
  - Co-author of items 1 to 11 and 14 to 27.
- Martin Perron, P.Eng. (OIQ No.109185), Director of Geology at Innovexplo:
   Co-author of items 1 to 11 and 14 to 27.
- Simon Boudreau, P.Eng. (OIQ No. 1320338; NAPEG No. L5047), Senior Mine Engineer at InnovExplo:
  - Co-author of items 1, 14 and 26.
- Pierre Roy, P.Eng. (OIQ No. 45201), Engineer with Soutex Inc.:
  - Author of item 13, co-author of 1 and 26.

#### 2.3 Site Visits

Ms. lund conducted one site visit (July 27 and July 28, 2022) during which she reviewed selected drill core intervals and inspected the core storage facility. She also collected drill core samples and surveyed drill hole collars for independent validation.



# 2.4 Effective Date

The close-out date of the mineral resource database is February 27, 2023.

The effective date of the 2023 MRE is May 11, 2023.

#### 2.5 Sources of Information

The documents listed in items 3 and 27 were used to support this Technical Report. Excerpts or summaries from documents authored by other consultants are indicated in the text.

The 2021 NI 43-101 PEA (Raponi et al., 2021) was extensively used to prepare items 4 through 6. A complete list of references is provided in item 27.

The authors' assessment of the Project was based on published material and information supplied by the issuer, including data, professional opinions and unpublished material. The authors reviewed all relevant data provided by the issuer and/or by its agents.

The authors also consulted other sources of information, mainly the Government of Quebec's online claim management and assessment work databases (GESTIM and SIGEOM, respectively) as well as Lomiko's technical reports, annual information forms, MD&A reports and press releases published on SEDAR (www.sedar.com).

The authors reviewed and appraised the information used to prepare this Technical Report and believe that such information is valid and appropriate considering the status of the project and the purpose for which this Technical Report is prepared. The authors have thoroughly researched and documented the conclusions and recommendations made in this Technical Report.

#### 2.6 Currency, Units of Measure, and Acronyms

The abbreviations, acronyms and units used in this report are provided in Table 2.1 and 2.2**Erreur ! Source du renvoi introuvable.** All currency amounts are stated in Canadian Dollars (\$, C\$, CAD) or US dollars (US\$, USD). Quantities are stated in metric units, as per standard Canadian and international practice, including metric tons (tonnes, t) and kilograms (kg) for weight, kilometres (km) or metres (m) for distance, hectares (ha) for area, percentage (%) for copper and nickel grades, and gram per metric ton (g/t) for precious metal grades. Wherever applicable, imperial units have been converted to the International System of Units (SI units) for consistency (Table 2.3).

Acronyms	Term
Ai	Abrasion index
BWi	Bond work index
CAD:USD	Canadian-American exchange rate
CDC	Map-designated claim after November 22, 2000
Cg	Carbon graphitic
CIM	Canadian institute of mining, metallurgy and petroleum



(	
CIM Definition Standards	CIM definition standards for Mineral Resources and Mineral Reserves
СМВ	Central metasedimentary belt
CoG	cut-off grade
CRM	Certified reference material
COV	Coefficient of variation
DDH	Diamond drill hole
EOH	End of hole
EM	Electromagnetic
GESTIM	Gestion des titres miniers (the MERN's online claim management system)
ICP	Induced coupled plasma
ID2	Inverse distance squared
IEC	International electrotechnical commission
ISO	International organization for standardization
KZA	Kitigan Zibi Anishinabeg First Nation's territory
LCT	locked cycle flotation test
MAG	Magnetics (or magnetometer)
MD&A	Management discussion and analysis
MELCCFP	Quebec's ministry of environment, the fight against climate change, wildlife and parks
MRNF	Ministère des ressources naturelles et des forêts du Québec (Quebec's current ministry of natural resources and forests)
MRE	Mineral resource estimate
MRN	Former name of MERN
NAD	North American datum
NAPEG	Northwest Territories and Nunavut Association of Professional Engineers and Professional Geoscientists
NCDZ	Nominingue-Cheneville Deformation Zone
NI 43-101	National Instrument 43-101 (Regulation 43-101 in Québec)
NN	Nearest neighbour
NSR	Net smelter return
OGQ	Ordre des géologues du Québec (Quebec's order of geologists)
OIQ	Ordre des Ingénieurs du Québec (Quebec's order of engineers)
ОК	Ordinary kriging
отс	Over-the-counter markets exchange
P80	80% passing - Product
PFS	Prefeasibility study
P.Eng.	Professional engineer
PEA	Preliminary economic assessment report
P.Geo	Professional geologist



PGO	Professional geoscientists Ontario
QA	Quality assurance
QA/QC	Quality assurance/quality control
QC	Quality control
QP	Qualified person (as defined in National Instrument 43-101)
Regulation 43-101	National Instrument 43-101 (name in Québec)
RWi	Rod work index
SCC	Standards council of Canada
SD	Standard deviation
SG	Specific gravity
SIGÉOM	Système d'information géominière (the MERN's online spatial reference geomining information system)
TDEM	Time domain electromagnetic
TSXV	Toronto venture exchange
UTM	Universal transverse mercator coordinate system
WRA	Whole rock analysis

# Table 2-2 – List of units

Symbol	Unit
%	Percent
\$, C\$	Canadian dollar
\$/t	Dollars per metric ton
0	Angular degree
°C	Degree Celsius
μm	Micron (micrometre)
Cg	graphitic carbon grade
g	Gram
Ga	Billion years
g/cm <sup>3</sup>	Gram per cubic centimetre
g/t	Gram per metric ton (tonne)
ha	Hectare
kg	Kilogram
km	Kilometre
kWh/t	Kilowatt-hour per metric ton
m	Metre
Ма	Million years (annum)
masl	Metres above mean sea level
min	Minute (60 seconds)



mm	Millimetre			
MPa	Megapascal			
рН	Potentiel hydrogène			
R2	coefficient of determination			
t	Metric tonne (1,000 kg)			
Tau	time constant			
US\$	American dollar			

# Table 2-3 – Conversion Factors for Measurements

Imperial Unit	Multiplied by	Metric Unit
1 inch	25.4	mm
1 foot	0.3048	m
1 acre	0.405	ha
1 ounce (troy)	31.1035	g
1 pound (avdp)	0.4535	kg
1 ton (short)	0.9072	t
1 ounce (troy) / ton (short)	34.2857	g/t



# 3. RELIANCE ON OTHER EXPERTS

The authors have followed standard professional procedures in preparing the contents of this Technical Report. The data has been verified where possible, and the report is based upon information believed to be accurate at the time of writing, considering the status of the La Loutre Project and the purpose for which the report is prepared. The authors have no reason to believe the data was not collected in a professional manner.

The authors did not rely on other experts to prepare this Technical Report. It was prepared by InnovExplo at the request of the issuer. Marina lund (P.Geo.), Martin Perron (P.Eng.), Simon Boudreau (P.Eng.) and Pierre Roy (P.Eng.) are the Qualified Professionals ("QP") responsible for reviewing technical documentation relevant to the Technical Report, preparing a mineral resource estimate on the Project, and recommending a work program if warranted.

The authors have not verified the legal status or legal title to any claims or the legality of any underlying agreements that may exist concerning the Property as described in Item 4 of this report. The QPs have relied on the issuer's information about mining titles, option agreements, royalty agreements, environmental liabilities and permits. Neither the QPs nor InnovExplo are qualified to express any legal opinion concerning property titles, current ownership or possible litigation.

The authors have examined the Government of Quebec's online claim management and assessment work databases, GESTIM and SIGEOM, respectively. The GESTIM and SIGEOM websites, below, were most recently viewed on May 9, 2023:

- gestim.mines.gouv.qc.ca/MRN\_GestimP\_Presentation/ODM02101\_login.asp x
- sigeom.mines.gouv.qc.ca/signet/classes/l1102\_indexAccueil?l=a



# 4. PROPERTY DESCRIPTION AND LOCATION

#### 4.1 Location

The Property is located in the Laurentides administrative region (a.k.a., the Laurentians) in Quebec, Canada (Figure 4-1). It is approximately 30 km west-southwest of the city of Mont-Tremblant (about 45 km by road). The Property is approximately 180 km northwest of Montreal, which can be accessed via Highway A15, Highway 117 and Highway 327. The Property is located within the Kitigan Zibi Anishinabeg ("KZA") First Nation's territory. The KZA First Nation is part of the Algonquin Nation and the KZA traditional territory is situated within the Outaouais and Laurentides regions. The approximate centroid of the Property is at Latitude 46°00' North; Longitude 75°00' West (UTM coordinates: 500645.27E and 5094047.52N, NAD 83, Zone 18). The nearest community is Duhamel, 5 km to the west. The Property lies in the townships of Addington and Suffolk on NTS map sheets 31G/14, 31G/15, 31J/02 and 31J/03.



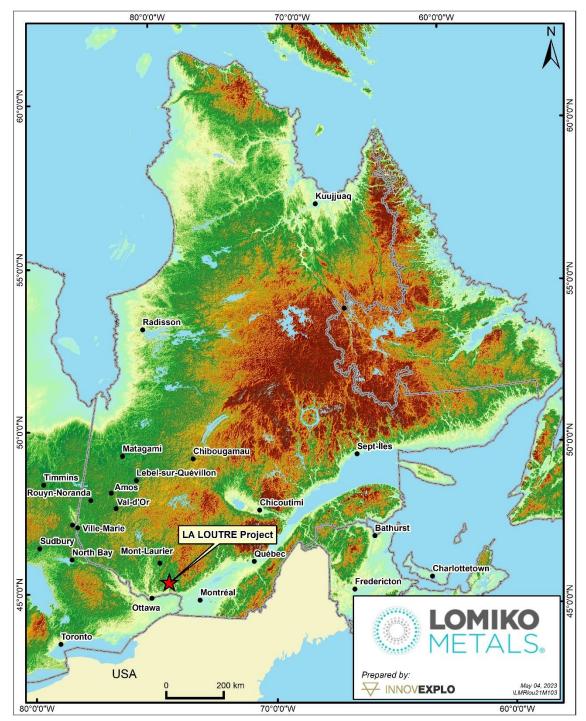


Figure 4-1 – Location of the La Loutre Property



# 4.2 Mining Title Status

The issuer supplied a list of the Property's mining titles. The authors verified their status using GESTIM, the Government of Quebec's online mining title management system (gestim.mines.gouv.qc.ca: most recently viewed May 9, 2023).

The Property comprises one large block of 76 claims staked by electronic map designation ("map-designated cells"), covering an aggregate area of 4,527.97 ha, with 100% of minerals rights owned by Lomiko. Forty-two (42) are subject to a 1.5% NSR royalty. All claims are in good standing as of May 9, 2023. The renewals for thirteen (13) claims with an expiration date before March 2023 renewals were still being processed by the MRNF at the time of writing. The claim map is shown in Figure 4-2. A detailed list of mining titles, ownership, royalties and expiration dates is presented in Table 4-1.



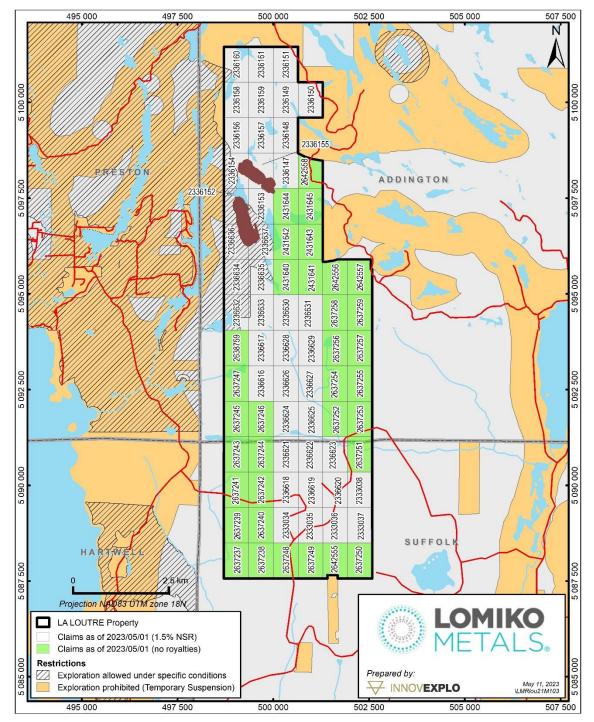


Figure 4-2 – Mining title map for the La Loutre Property



Title Number	Title Type	Area (ha)	Registry Date	Expiration Date	Total Credits	Owner	Royalties
2336616	CDC	59,76	2012-03-20	2025-03-19	- \$	Lomiko Metals Inc.	1.5% NSR, of which 0.5% may be purchased for \$500,000
2336617	CDC	59,75	2012-03-20	2025-03-19	- \$	Lomiko Metals Inc.	1.5% NSR, of which 0.5% may be purchased for \$500,000
2637237	CDC	59,8	2022-02-24	2025-02-23	- \$	Lomiko Metals Inc.	no royalty
2637238	CDC	59,8	2022-02-24	2025-02-23	- \$	Lomiko Metals Inc.	no royalty
2637239	CDC	59,79	2022-02-24	2025-02-23	- \$	Lomiko Metals Inc.	no royalty
2637240	CDC	59,79	2022-02-24	2025-02-23	- \$	Lomiko Metals Inc.	no royalty
2637241	CDC	59,78	2022-02-24	2025-02-23	- \$	Lomiko Metals Inc.	no royalty
2637242	CDC	59,78	2022-02-24	2025-02-23	- \$	Lomiko Metals Inc.	no royalty
2637243	CDC	59,78	2022-02-24	2025-02-23	- \$	Lomiko Metals Inc.	no royalty
2637244	CDC	59,78	2022-02-24	2025-02-23	- \$	Lomiko Metals Inc.	no royalty
2637245	CDC	59,77	2022-02-24	2025-02-23	- \$	Lomiko Metals Inc.	no royalty
2637246	CDC	59,77	2022-02-24	2025-02-23	- \$	Lomiko Metals Inc.	no royalty
2637247	CDC	59,76	2022-02-24	2025-02-23	- \$	Lomiko Metals Inc.	no royalty
2638759	CDC	59,75	2022-03-08	2025-03-07	- \$	Lomiko Metals Inc.	no royalty
2333034	CDC	59,79	2012-03-01	2023-03-01	- \$	Lomiko Metals Inc.	1.5% NSR, of which 0.5% may be purchased for \$500,000
2333035	CDC	59,79	2012-03-01	2023-03-01	- \$	Lomiko Metals Inc.	1.5% NSR, of which 0.5% may be purchased for \$500,000
2333036	CDC	59,79	2012-03-01	2023-03-01	- \$	Lomiko Metals Inc.	1.5% NSR, of which 0.5% may be purchased for \$500,000
2333037	CDC	59,79	2012-03-01	2023-03-01	- \$	Lomiko Metals Inc.	1.5% NSR, of which 0.5% may be purchased for \$500,000
2333038	CDC	59,78	2012-03-01	2023-03-01	- \$	Lomiko Metals Inc.	1.5% NSR, of which 0.5% may be purchased for \$500,000

# Table 4-1 – List of claims for the La Loutre Property



2336618	CDC	59,78	2012-03-20	2023-03-19	- \$	Lomiko Metals Inc.	1.5% NSR, of which 0.5% may be purchased for \$500,000
2336619	CDC	59,78	2012-03-20	2023-03-19	- \$	Lomiko Metals Inc.	1.5% NSR, of which 0.5% may be purchased for \$500,000
2336620	CDC	59,78	2012-03-20	2023-03-19	- \$	Lomiko Metals Inc.	1.5% NSR, of which 0.5% may be purchased for \$500,000
2336621	CDC	59,78	2012-03-20	2023-03-19	- \$	Lomiko Metals Inc.	1.5% NSR, of which 0.5% may be purchased for \$500,000
2336622	CDC	59,78	2012-03-20	2023-03-19	- \$	Lomiko Metals Inc.	1.5% NSR, of which 0.5% may be purchased for \$500,000
2336623	CDC	59,78	2012-03-20	2023-03-19	- \$	Lomiko Metals Inc.	1.5% NSR, of which 0.5% may be purchased for \$500,000
2336624	CDC	59,77	2012-03-20	2023-03-19	- \$	Lomiko Metals Inc.	1.5% NSR, of which 0.5% may be purchased for \$500,000
2336625	CDC	59,77	2012-03-20	2023-03-19	- \$	Lomiko Metals Inc.	1.5% NSR, of which 0.5% may be purchased for \$500,000
2336626	CDC	59,76	2012-03-20	2025-03-19	- \$	Lomiko Metals Inc.	1.5% NSR, of which 0.5% may be purchased for \$500,000
2336627	CDC	59,76	2012-03-20	2025-03-19	- \$	Lomiko Metals Inc.	1.5% NSR, of which 0.5% may be purchased for \$500,000
2336628	CDC	59,75	2012-03-20	2025-03-19	- \$	Lomiko Metals Inc.	1.5% NSR, of which 0.5% may be purchased for \$500,000
2336629	CDC	59,75	2012-03-20	2025-03-19	- \$	Lomiko Metals Inc.	1.5% NSR, of which 0.5% may be purchased for \$500,000
2637248	CDC	59,8	2022-02-24	2025-02-23	- \$	Lomiko Metals Inc.	no royalty
2637249	CDC	59,8	2022-02-24	2025-02-23	- \$	Lomiko Metals Inc.	no royalty
2637250	CDC	59,8	2022-02-24	2025-02-23	- \$	Lomiko Metals Inc.	no royalty
2637251	CDC	59,78	2022-02-24	2025-02-23	- \$	Lomiko Metals Inc.	no royalty
2637252	CDC	59,77	2022-02-24	2025-02-23	- \$	Lomiko Metals Inc.	no royalty
2637253	CDC	59,77	2022-02-24	2025-02-23	- \$	Lomiko Metals Inc.	no royalty
2637254	CDC	59,76	2022-02-24	2025-02-23	- \$	Lomiko Metals Inc.	no royalty



2637255	CDC	59,76	2022-02-24	2025-02-23	- \$	Lomiko Metals Inc.	no royalty
2637256	CDC	59,75	2022-02-24	2025-02-23	- \$	Lomiko Metals Inc.	no royalty
2637257	CDC	59,75	2022-02-24	2025-02-23	- \$	Lomiko Metals Inc.	no royalty
2642555	CDC	57,52	2022-03-22	2025-03-21	- \$	Lomiko Metals Inc.	no royalty
2336147	CDC	59,7	2012-03-16	2025-03-15	- \$	Lomiko Metals Inc.	1.5% NSR, of which 0.5% may be purchased for \$500,000
2336148	CDC	59,7	2012-03-16	2025-03-15	- \$	Lomiko Metals Inc.	1.5% NSR, of which 0.5% may be purchased for \$500,000
2336149	CDC	59,69	2012-03-16	2025-03-15	- \$	Lomiko Metals Inc.	1.5% NSR, of which 0.5% may be purchased for \$500,000
2336150	CDC	59,69	2012-03-16	2025-03-15	- \$	Lomiko Metals Inc.	1.5% NSR, of which 0.5% may be purchased for \$500,000
2336151	CDC	59,68	2012-03-16	2025-03-15	- \$	Lomiko Metals Inc.	1.5% NSR, of which 0.5% may be purchased for \$500,000
2336630	CDC	59,74	2012-03-20	2025-03-19	- \$	Lomiko Metals Inc.	1.5% NSR, of which 0.5% may be purchased for \$500,000
2336631	CDC	59,74	2012-03-20	2025-03-19	- \$	Lomiko Metals Inc.	1.5% NSR, of which 0.5% may be purchased for \$500,000
2431640	CDC	59,73	2015-07-29	2024-07-28	- \$	Lomiko Metals Inc.	no royalty
2431641	CDC	59,73	2015-07-29	2024-07-28	- \$	Lomiko Metals Inc.	no royalty
2431642	CDC	59,72	2015-07-29	2024-07-28	- \$	Lomiko Metals Inc.	no royalty
2431643	CDC	59,72	2015-07-29	2024-07-28	- \$	Lomiko Metals Inc.	no royalty
2431644	CDC	59,71	2015-07-29	2024-07-28	- \$	Lomiko Metals Inc.	no royalty
2431645	CDC	59,71	2015-07-29	2024-07-28	- \$	Lomiko Metals Inc.	no royalty
2637258	CDC	59,74	2022-02-24	2025-02-23	- \$	Lomiko Metals Inc.	no royalty
2637259	CDC	59,74	2022-02-24	2025-02-23	- \$	Lomiko Metals Inc.	no royalty
2642556	CDC	58,17	2022-03-22	2025-03-21	- \$	Lomiko Metals Inc.	no royalty
2642557	CDC	58,82	2022-03-22	2025-03-21	- \$	Lomiko Metals Inc.	no royalty
2642558	CDC	51,6	2022-03-22	2025-03-21	- \$	Lomiko Metals Inc.	no royalty



							1.5% NSR, of which 0.5% may be purchased for
2336152	CDC	59,71	2012-03-16	2025-03-15	179 942,81 \$	Lomiko Metals Inc.	\$500,000
2336153	CDC	59,71	2012-03-16	2025-03-15	37 772,21 \$	Lomiko Metals Inc.	1.5% NSR, of which 0.5% may be purchased for \$500,000
2336154	CDC	59,7	2012-03-16	2025-03-15	105 195,39 \$	Lomiko Metals Inc.	1.5% NSR, of which 0.5% may be purchased for \$500,000
2336155	CDC	59,7	2012-03-16	2025-03-15	579 378,52 \$	Lomiko Metals Inc.	1.5% NSR, of which 0.5% may be purchased for \$500,000
2336156	CDC	59,7	2012-03-16	2025-03-15	- \$	Lomiko Metals Inc.	1.5% NSR, of which 0.5% may be purchased for \$500,000
2336157	CDC	59,7	2012-03-16	2025-03-15	- \$	Lomiko Metals Inc.	1.5% NSR, of which 0.5% may be purchased for \$500,000
2336158	CDC	59,69	2012-03-16	2025-03-15	- \$	Lomiko Metals Inc.	1.5% NSR, of which 0.5% may be purchased for \$500,000
2336159	CDC	59,69	2012-03-16	2025-03-15	- \$	Lomiko Metals Inc.	1.5% NSR, of which 0.5% may be purchased for \$500,000
2336160	CDC	59,68	2012-03-16	2025-03-15	- \$	Lomiko Metals Inc.	1.5% NSR, of which 0.5% may be purchased for \$500,000
2336161	CDC	59,68	2012-03-16	2025-03-15	- \$	Lomiko Metals Inc.	1.5% NSR, of which 0.5% may be purchased for \$500,000
2336632	CDC	59,74	2012-03-20	2025-03-19	- \$	Lomiko Metals Inc.	1.5% NSR, of which 0.5% may be purchased for \$500,000
2336633	CDC	59,74	2012-03-20	2025-03-19	- \$	Lomiko Metals Inc.	1.5% NSR, of which 0.5% may be purchased for \$500,000
2336634	CDC	59,73	2012-03-20	2025-03-19	- \$	Lomiko Metals Inc.	1.5% NSR, of which 0.5% may be purchased for \$500,000
2336635	CDC	59,73	2012-03-20	2025-03-19	- \$	Lomiko Metals Inc.	1.5% NSR, of which 0.5% may be purchased for \$500,000
2336636	CDC	59,72	2012-03-20	2025-03-19	39 002,25 \$	Lomiko Metals Inc.	1.5% NSR, of which 0.5% may be purchased for \$500,000
2336637	CDC	59,72	2012-03-20	2025-03-19	6 717,69 \$	Lomiko Metals Inc.	1.5% NSR, of which 0.5% may be purchased for \$500,000
		4527,97			948 008,87 \$		



#### 4.3 Ownership, Royalties and Agreements

# 4.3.1 2012 – Acquisition of the La Loutre Property by Canada Rare Earths (Canada Strategic Metals)

On February 27, 2012, Canada Rare Earths Inc., which changed its name to Canada Strategic Metals Inc. in August 2012 ("Canada Strategic"), acquired the La Loutre Property from three people (collectively, the "Vendors"): Jean-Sébastien Lavallée (33.33%; President and CEO of Canada Strategic), Jean-Raymond Lavallée (33.33%) and Michel Robert (33.33%). At that time, the property consisted of one block of 42 mining claims covering an aggregate area of 2,508.97 ha. Canada Strategic had an option to earn a 100% interest in the Property by making the following payments (in Canadian dollars) and issuing the following common shares to the Vendors:

- \$15,000 upon signing the letter agreement
- \$15,000 and 1,000,000 common shares on receipt of the TSXV acceptance of the agreement
- \$15,000 six (6) months from TSXV acceptance
- \$15,000 and 500,000 common shares 12 months from TSXV acceptance
- \$15,000 and 500,000 common shares 18 months from TSXV acceptance

According to the terms of the agreement, Canada Strategic was obliged to spend a minimum of \$100,000 on exploration on the Property during the 12-month period from the date of TSXV acceptance. The Vendors retained a 1.5% NSR on the Property, 0.5% of which could be purchased by Canada Strategic for \$500,000.

On June 27, 2013, Canada Strategic announced that it had negotiated an amendment to the outstanding property option agreement with the Vendors. The two payments of \$15,000, originally due six (6) and twelve (12) months from the date of the TSXV approval (received on March 16, 2012), were cancelled, and in lieu thereof, Canada Strategic agreed to issue the Vendors 1,100,000 shares on the day that is 12 months from the date of the TSXV approval. Furthermore, it was agreed that the fourth payment of \$15,000, which was due on the day that is 18 months from the date TSXV approval was received, may be paid in common shares at a price per share equal to the market price of the issuer's shares on the TSXV on the date the amount is payable, subject to the minimum price allowed under the policies of the TSXV. All other terms of the agreement remained unchanged. The terms of the option had been paid in full, and Canada Strategic became the 100% owner of the property subject to an NSR royalty of 1.5%.

#### 4.3.2 2014 – Agreement between Lomiko and Canada Strategic

On September 23, 2014, Canada Strategic announced that it had signed an agreement with Lomiko for a 40% undivided interest in the Property. According to the agreement, Lomiko could acquire the 40% undivided interest by paying \$12,500 upon signing the agreement (non-refundable); by issuing an aggregate of 1,250,000 common shares of Lomiko at a deemed price of \$0.07 per share within ten (10) business days following the effective date of the agreement; and by incurring \$500,000 in exploration expenditures no later than the first anniversary of the effective date.



Lomiko has completed all the terms of the 2014 agreement. Thus, at the completion date, Canada Strategic held a 60% undivided interest in the Property and Lomiko the remaining 40%.

# 4.3.3 2015 – Agreement between Lomiko and Canada Strategic

On February 9, 2015, Canada Strategic and Lomiko agreed to the terms of an additional option pursuant to which Lomiko shall have the exclusive right and option to acquire an additional 40% undivided interest in the La Loutre Property and an 80% undivided interest in the Lac des Iles Property (located near Mont-Laurier) in exchange for a cash payment of \$1,010,000, the issuance of 3,000,000 common shares of Lomiko, and the funding of \$1.75 million in exploration expenditures over two years. The terms of the option were completed.

# 4.3.4 2015 – New Claims Staked by Canada Strategic

On July 29, 2015, Canada Strategic added six new claims (358.32 ha) to the La Loutre Property. These claims were included in the previous agreement between Canada Strategic and Lomiko. These claims have no underlying royalty.

# 4.3.5 2017 – Agreement between Lomiko and Canada Strategic

Lomiko and Canada Strategic amended the February 2015 agreement on the La Loutre and Lac des lles properties allowing Lomiko to acquire up to 100% interest in the project from Canada Strategic. Lomiko would be required to issue 950,000 shares and complete \$1,125,000 of exploration expenditures by December 31, 2020.

#### 4.3.6 2020 Agreement between Quebec Precious Metals and Lomiko

Lomiko and Quebec Precious Metals Corp. (formerly Canada Strategic) again amended their agreement to extend the deadline for additional exploration expenditures totalling \$1,125,000 on the La Loutre Project, the Lac des Iles Project and other designated properties (as mutually agreed to by both parties) to December 31, 2021. Under the amendment, Lomiko had to pay 1,000,000 common shares, which was completed in June 2020. A cash payment in lieu of exploration was paid on February 1, 2021, to complete the 100% option.

This acquisition was deemed complete with property transfer on March 29, 2021.

#### 4.3.7 2022 – New claims Staked by Lomiko

On May 16, 2022, Lomiko announced that it had staked 28 claims contiguous to the La Loutre Project, with the issuer's total claim package now covering 4,528 ha. These claims have no underlying royalty.

#### 4.4 Permits and Environmental Liabilities

Lomiko is responsible for obtaining all authorizations and permits from the MRNF (Quebec's Ministry of Natural Resources and Forests) or the MELCCFP (Quebec's



Ministry of Environment, the Fight Against Climate Change, Wildlife and Parks) when applicable.

Part of the Property overlaps a Virginia deer containment area (No 11900, Duhamel), where mineral exploration is only allowed under specific conditions (Figure 4-2).

The Property also falls within the traditional land of the Kitigan Zibi Anishinabeg ("KZA") First Nation's territory. The KZA First Nation is part of the Algonquin Nation, and the traditional KZA territory lies within the Government of Quebec's Outaouais and Laurentides administrative regions.

In 2022, Lomiko continued work on community engagement, with more than three rounds of meetings with all surrounding communities now completed and a toll-free community number set up to receive and respond to questions and concerns.

The authors are not aware of any environmental liabilities or permitting issues concerning the Project. All exploration activities conducted on the Property comply with the relevant environmental permitting requirements.

#### 4.5 Other Important Risk Factors

The authors are not aware of any other significant factors or risks that could affect access, title, or the right or ability to estimate the mineral resources on the Property.



# 5. ACCESSIBILITY, CLIMATE, LOCAL RESOURCES, INFRASTRUCTURE AND PHYSIOGRAPHY

# 5.1 Accessibility

The Property is currently accessible from Route 323 by driving north from Montreal on Highway 15, then onto Highway 117 to St-Jovite and finally turning left or west onto Highway 323 for 40 km to Lac des Plages. Highway 323 crosses the municipalities of Brébeuf and Amherst before reaching Lac des Plages. Once there, a series of secondary roads and forestry roads lead to the Property.

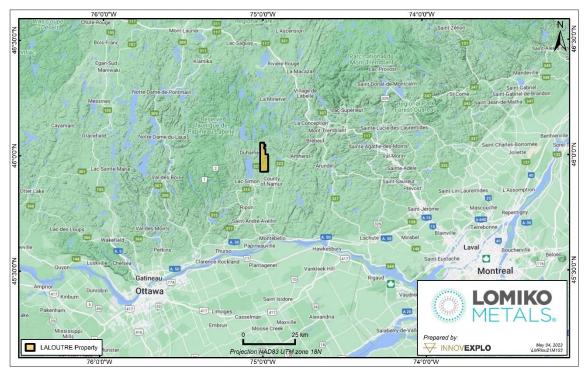


Figure 5-1 – Access to the La Loutre Project

# 5.2 Climate

In the Property area, the climate is cold and temperate, with significant precipitation as rain or snow. The average annual temperature is 4.3°C. The warmest month is July, with an average temperature of 19.1°C, and the coldest January, with an average temperature of -12.4°C. Precipitation averages 986 mm per year. The month with the least precipitation is February, with 63 mm of snow-water equivalent. Most of the precipitation falls as rain in August, averaging 98 mm. Exploration activities can be carried out year-round.

# 5.3 Local Resources and Infrastructure

The main administrative centre in the area is Mont-Tremblant, 40 km northeast of the Property, where heavy machinery, fuel and other equipment and services are available. Specialized mining equipment can be found in Mont-Laurier (100 km northwest of the



Property), Montreal and Val-d'Or, and skilled mining labour can be found in Mont-Laurier and the mining centre of Val-d'Or, located 450 km northwest of the Property. Several mining and mineral exploration companies are located in Val-d'Or. Heavy infrastructure, such as a railway, is available 50km south toward the Ottawa River at Montebello. The nearest commercial airport is at Mont-Tremblant, 50 km to the northeast.

## 5.4 Physiography

The topography on the Property is gently undulated with an average elevation of 300 masl in a range from 280 to 360 masl. Some outcrops are present, but most of the bedrock is hidden by a thin veneer of overburden almost entirely composed of glacial sand, gravel and pebbles. There is virtually no arable land in the region. The vegetation consists mainly of mixed forest dominated by pine, spruce, cedar, and deciduous species. The hills, generally covered in deciduous trees, have steep sides up to 10 m high, whereas the intervening valleys are characterized by swamps, lakes and streams and are populated by coniferous species. Hills are 400 to 900 m across, whereas valleys are 100 to 500 m wide. Hills and valleys are oriented both northwest-southeast and northeast-southwest. The property has been partially affected by logging activities in the past.



## 6. HISTORY

The following is a summary of previously completed work in the Property area. The inform is taken from Raponi (2021) and Lavallée and Martin-Tanguay (2019).

**Erreur ! Source du renvoi introuvable.** 6.1 summarizes all the historical work on the P roperty.

Year	Company	Work description	Other records	References
1942			Southern part of the Property 31G14/31G15	RP 169
1948		Geological survey	Graphite abundant in the area	RG 033
1956	]		Eastern part of the Property 31J02	RP 321
1957	MRN		Western part of the Property 31J03	RP 334
1979		Airborne MAG survey		DP 709
1989		Graphite occurrences inventory	Entire Property	MB 89-05
1990		Stream sediment survey for more than 40 elements		MB 89-32
1988		Airborne MAG Survey (REXHLEM IV)	Northern end of the Property Project 101050	GM 48091
1988		Airborne MAG-EMH survey Ground Beep Mat EM followed up prospection, mapping and staking	Northern part of the Property Project 101070	GM 46915
	SOQUEM	Line cutting, prospecting, mapping on La Loutre A and B showings	Northern part of the Property Project 101070	GM 51241
1991		Ground Beep Mat EM prospecting Geological survey at 1:10,000	To verify ground geophysical anomalies. Southern part of the Property Reignier Project	GM 51222
1994		Stream sediment survey maps	Entire Property	MB 94-31
1998	MRN	Airborne EM-MAG surveys	Northwestern part of the Property	DP-96-09
2006		Airborne geophysical surveys compilation	Grenville and Des Basses Terres du Saint-Laurent areas	DP-2006-01
2009	CONSOREM	Stream sediment survey	Entire Property	MB 2009-15 MB 2009-16
2012	Canada Strategic/	Heli-borne TDEM (GPRTEM) and magnetic survey	La Loutre / Lac-des-Iles West properties	GM 67729
2013	Quebec Precious Metals/ Lomiko	Prospection and Channel sampling on the Graphene- Battery Zone (La Loutre Property)	Entire Property	GM 69154

Table 6-1– Review	of historical e	xploration v	work on the l	La Loutre Property
	or motorical c			



## 6.1 1988 to 1991 - SOQUEM

The Project area was originally staked by SOQUEM in 1988 based on the results of airborne magnetic and electromagnetic (REXHEM IV) surveys and a review of local graphite occurrences. In the summer of 1989, a geological reconnaissance program was carried out in the areas hosting the La Loutre A, B and C REXHEM anomalies (Saindon and Dumont, 1989). The reconnaissance work included a ground Beep Mat EM survey over the anomalies, with lines spaced 100 m apart (Levesque and Marchand, 1989). This fieldwork led to the discovery of three new graphite showings corresponding to the A, B and C anomalies. The La Loutre A showing to the southeast consisted of two outcrops, some 250 m apart, containing more than 10% Cg. The conductor outlined by the Beep Mat survey indicated a possible continuity of the graphite horizon over a length of 1,200 m and a width of 100 m. The La Loutre B showing to the southwest consisted of boulders containing more than 10% graphite, within a conductive sector measuring 500 m by 150 m. The La Loutre C showing was characterized by quartz-feldspar gneiss containing 1% to 2% graphite.

During the summer of 1990, a grid was cut at La Loutre A consisting of 11.5 km of lines spaced 50 m apart. A ground Beep Mat EM survey was performed on and between the lines. A small geological survey was carried out around the La Loutre A showing. Seven (7) sites were blasted to explain the conductor detected by the Beep Mat survey. No samples were assayed (Turcotte et al., 2016).

A grid was also cut on the La Loutre B showing, consisting of 2.2 km of lines spaced 25 m apart. The entire grid was prospected using a Beep Mat. Some outcrops were mapped. In four (4) separate places, up to 5% graphite was observed. The mineralization was usually found in pyroxene gneiss, but no samples were assayed (Turcotte et al., 2016).

In 1990, SOQUEM staked the Reignier property to the south of the former La Loutre Property and within the current Property.

In 1991, a geological survey (scale of 1:10,000) was carried out, as was a Beep Mat EM survey accompanied by prospecting. Small manual trenches were dug on the best Beep Mat conductors. No assay results were reported. Three (3) major targets were identified based on the result of the exploration work (the Reignier A, Reignier B and Reignier C areas). These areas strike N150° along a major lineament. The lithological units in the three areas contained 2% to 10% graphite (visual estimates). La Loutre B is situated in the current Electric Vehicle ("EV") deposit and Reignier A in the current Battery deposit, both of which are the subject of this Technical Report. SOQUEM stopped its exploration work on the Property in 1992 (Turcotte et al., 2016).

## 6.2 2012 to 2013 – Canada Strategic

#### 6.2.1 Electromagnetic and magnetic survey

In May 2012, a helicopter-borne time-domain electromagnetic (GPRTEM) and magnetic survey was flown for Canada Strategic. The survey was composed of two (2) blocks for a minimum coverage of 1,145 line-km (Lac-des-Isles West: 706 km, La Loutre: 439 km). The La Loutre Block showed a multitude of EM conductors over most parts of the grid. A total of 409 EM anomalies were selected based on shape. These were divided into seven (7) categories based on strength and definition (Létourneau and Paul, 2012).



## 6.2.2 Surface prospecting and geological mapping

Surface prospecting and geological mapping was completed in the summer of 2012. A total of 210 bedrock samples were collected, returning 1 to 10% graphite. After that field campaign, Canada Strategic conducted geological mapping at a 1:10,000 scale with bedrock sampling and outcrops.

Following the positive values of the 2012 sampling program, six (6) channels were cut in 2013. The site was selected by combining rock samples and airborne TDEM. More than 80 m-long channels were sawed and then sampled for a total of 25 samples with an average grade of 2.21% graphite. Another seven (7) samples were collected to better define the mineralized area.



## 7. GEOLOGICAL SETTING AND MINERALIZATION

The following geological summary is taken from Raponi (2021).

## 7.1 Regional Geology

The Property is located in the eastern part of the Central Metasedimentary Belt ("CMB"), as illustrated in Figure 7-1 and Figure 7-2.

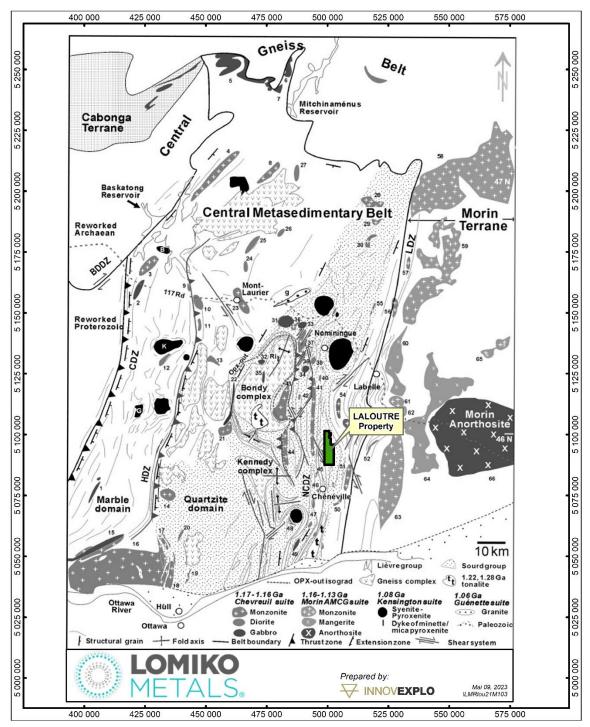
The CMB in the western Grenville Province extends southward from western Quebec into Ontario and New York State (Wynne-Edwards, 1972). In Quebec, the CMB includes Mesoproterozoic supracrustal and intrusive upper amphibolite- to granulite-facies rocks metamorphosed between 1.2 and 1.18 Ga. These rocks structurally overlap the gneissic units that form the pre-Grenvillian margin of Laurentia (the allochthonous polycyclic belt/Central Gneiss Belt). The CMB is subdivided into two domains: an NNE-trending marble-rich domain to the west, bordered by a quartzite-rich domain to the east.

At the main marble and quartzite domain interface, domain-bounding fabrics dip to the west, the quartzite package projecting structurally beneath the marble. Complexes of quartzofeldspathic gneiss with metatonalite intrusions are present in both domains (Wynne-Edwards et al. 1966; Corriveau et al. 1996, 1998); Those granitic to tonalitic gneiss complexes form a series of domes structurally below the marble and quartzite assemblages (Corriveau and Morin, 2000).

Once metamorphosed, the marble, quartzite, and felsic gneiss rock packages had contrasting mechanical properties, which resulted in distinct rheological behaviour and, consequently, a range of non-reactivated to completely overprinted orogenic segments (Corriveau et al., 1998). A high-pressure (P>800 MPa) assemblage of orthopyroxene–sillimanite–cordierite (Carrington and Harley, 1995) occurs within the gneissic fabric of the Bondy gneiss complex. The assemblage reveals that peak pressure was achieved during foliation development (~950°C at ~1000 MPa) (Boggs, 1996), recording the first and main phase of crustal thickening in the CMB. Metamorphic conditions preserved across the belt range from ~650°C and ~600 MPa along its western boundary to ~750°C and ~800 MPa in the marble domain, ~950°C and ~1000 MPa in the Bondy gneiss complex, and ~725°C and ~850 MPa along its eastern boundary (Indares and Martignole, 1990; Boggs, 1996). This record is diachronous and registers the successive imprint of strongly partitioned orogenic pulses instead of differential unroofing or tectonic telescoping of blocks affected by a single metamorphic event (Corriveau et al., 1998).

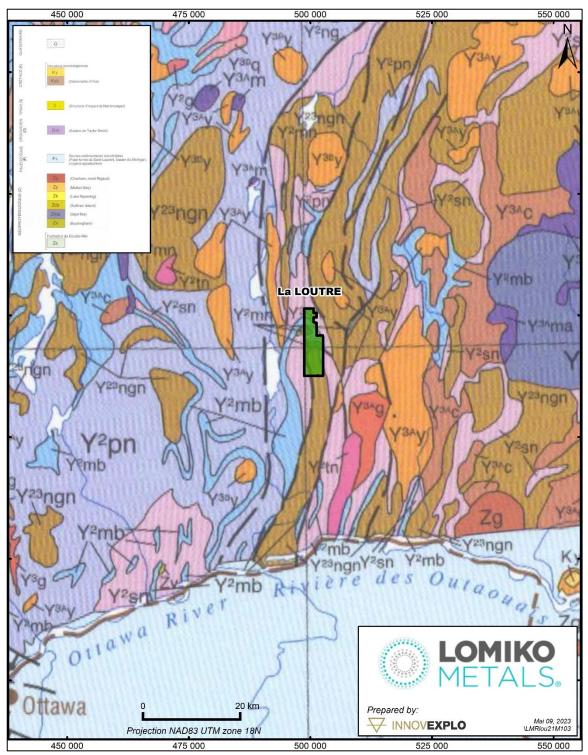
To the east, the CMB is tectonically bounded against the Morin terrane north-northeaststriking, subvertical, amphibolite- to granulite-facies Labelle Deformation Zone, ~150 km long and up to 10 km wide (Martignole and Corriveau, 1991; Martignole et al., 2000). Developed adjacent to and merging northward with the Labelle Deformation Zone is the Nominingue-Cheneville Deformation Zone ("lineament" of Dimroth, 1966). This zone is recognized as a steeply dipping, north-trending zone, ~10 km wide and at least 40 km long, of ductile strain at mid- to upper-amphibolite grade (Dupuy et al., 1989; Corriveau and Jourdain, 1993; Corriveau and Madore, 1994). Anastomosing conjugate shear zones (NNE dextral; SSE sinistral) locally transpose the N-S foliation of the gneiss in the Nominingue-Cheneville and Labelle zones (Rivard et al., 1999).





Source: Turcotte, 2016 Figure 7-1 – Regional Geology Plan





Source: Davidson A., 1998

# Figure 7-2 – Regional geology of the La Loutre Property area



## 7.2 Local Geology

The Property is located within the Nominingue-Cheneville Deformation Zone ("NCDZ"), a 10-km-wide ductile shear zone at amphibolite facies with lit-par-lit injections of monzonite and diorite among Mesoproterozoic porphyroclastic paragneiss as illustrated in Figure 7-1. The NCDZ is a N-S zone dipping steeply to the west. It extends southward toward the Ottawa River and is likely an extension of the high-strain zone observed to the south by Dupuy et al. (1989) in the Gatineau area. Dimroth (1966) first identified this zone and considered it an important structural frontier in the Grenville Province of Quebec. It could be the most western component of the Labelle Deformation Zone. This corridor comprises discontinuous anastomosing shear zones with a sinistral or eastward-thrusting sense of movement. The intensity (or timing) of the deformation varies from east to west. In the west, a large proportion of monzonitic sheets and their dykes have retained their magmatic foliation, and the pegmatite dykes are straight or only slightly sigmoidal. In contrast, to the east, the microdiorite and pegmatite dykes are mylonitized (Turcotte et al., 2016).

Paragneisses in the region of the NCDZ are Mesoproterozoic in age and belong to the quartzite-rich domain that characterizes the eastern part of the CMB. Quartzite and impure quartzite (with minor biotite, feldspar, garnet, magnetite, muscovite or orthopyroxene) occur as folded and boudinaged layers intercalated, at outcrop and map scales, with quartzofeldspathic, graphitic or biotite gneisses, marble, calc-silicate rocks and metapelites. Fe-sulphides and tourmaline are common in the area; they are disseminated in paragneisses or occur in late quartz veins.

In the NCDZ, the 1165 Ma magmatism is characterized by concordant sheets of monzonite and diorite, 10 m to kilometres thick (Corriveau and van Breemen, 1994). These plutonic bodies are intercalated with and emplaced as layer-by-layer injections in mylonitic paragneisses at amphibolite facies (Corriveau, 1991; Corriveau et al., 1994). Evidence of assimilation, magma mixing, syntectonic emplacement and skarn formation are common in this corridor. Where monzonite has been greatly sheared, it is transformed into biotite and garnet gneisses and includes intercalation of calc-silicate rocks for which gabbro is a likely protolith.

Apart from the monzonitic masses described above, the 1165 Ma magmatism occurs as lamprophyre dykes with a net-veined texture and biotite phenocrysts. These dykes crosscut the orthogneisses and the tonalite and consist of centimetre- to decimetre-scale round masses of lamprophyre in a granitic matrix. Zones of anhydrous reaction locally separate these two components. The lamprophyric dykes occur as injections in the heart of pegmatite dykes; contacts are very irregular and lobed. Pillowing and boudinaging occurred before solidification. The pegmatite dykes have straight contacts with their country rock.

These rocks have been regionally metamorphosed to granulite facies around 1185 Ma (Corriveau and van Breemen, 1994); retrogression to amphibolite facies is thorough along the NCDZ.

Regional foliation is marked by gneiss, ribbon structure and preferential orientation of tabular minerals. Lineations are defined by the preferred orientation of minerals and mineral aggregates, such as quartz in granitic veins and sillimanite in metapelites. The S1 foliation defined by gneissosity is commonly tightly to isoclinally folded (F2 folds); an axial planar schistosity S2 is rarely developed. Mafic dykes at amphibolite facies crosscut the F2 folds; they are themselves tightly to openly folded (F3 folds) and have a strong



mineral lineation commonly parallel to the lineation in the country rock. The monzonitic and dioritic magmatism and associated net-veined microdioritic dykes represent an important time marker in the area. The dykes crosscut the gneissosity S1 and F2 folds, and the porphyroclastic gneisses of the Nominingue-Cheneville high-strain zone; they are openly to tightly folded (F3) or sheared with hornblende aligned parallel to fold axes in dykes and mineral lineations in host rocks.

## 7.3 Property Geology

The Property consists of a unit of biotite gneiss (±diopside). Quartzite constitutes a significant part of outcrops on the Property. Diopside-scapolite-bearing calc-silicate rocks, marbles, and other lithological units of sillimanite-biotite gneiss and sillimanite-garnet gneiss are less abundant than biotite gneiss with which they generally alternate as lit-par-lit. The marbles are observed at only a few places on the Property. Some outcrops of amphibolite were also documented. Orthogneiss is found along the eastern edge of the Property. Diabase dykes cut all previous units.

The paragneisses contain significant biotite and are generally oxidized to a grey-brown colour, and are schistose, locally displaying ribboning. On a fresh surface, the rock appears grey-black to brownish-grey. They contain biotite, phlogopite, quartz, feldspar, garnet and pyroxene (augite), with occasional sillimanite, 1% to 2% pyrrhotite and 1% to 10% graphite. The biotite content is variable and ranges from 10% to 30%.

Quartzites are generally quite massive, greyish and feature granoblastic texture. On fresh surface, the rock tends to be light grey to greyish white with a predominance of quartz and minor feldspar, pyroxene (augite) and carbonate. Others show quartz-feldspar or quartz-dominant compositions or median compositions between pelitic gneiss and pure quartzite. Generally, no graphite is observed within the quartzite, but in cases where graphite was observed, notably in drill core, it could represent remobilized graphite from adjacent paragneiss.

Marbles tend to be layered, with a greyish creamy colour on outcrops and a granoblastic texture. Fresh surfaces are more greyish-white and show an assemblage of carbonate (mostly calcite) with minor quartz, feldspar, phlogopite, pyrite and graphite. Locally they have a higher content of quartz, up to 70% pyroxene (augite) in places and are very coarse-grained; they are termed calc-silicate rocks.



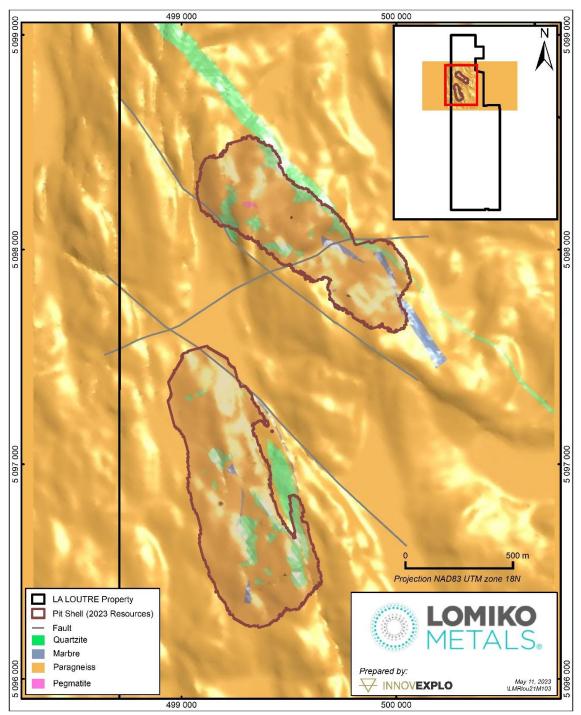


Figure 7-3 – La Loutre property geology

# 7.4 Mineralization

The stratigraphic sequence consists of a thick paragneiss unit intercalated with thin units of quartzite and marble. The mineralized domains are mainly located in the paragneiss



and follow the stratigraphy. Graphite flakes are disseminated in the graphitic paragneiss in variable concentrations.

The bedding is oriented N160° at the Battery deposit and dips 20 to  $45^{\circ}$  to the southwest. At the EV deposit, bedding is oriented N130° and dips 20 to  $35^{\circ}$  to the southwest. Two NW-SE faults pass between the deposits. The mineralized domains are wide (10 to 150 m) and reach up to 1,000 m in strike length.

Tight, isoclinal, multi-decametric folds deform the geological units. At the Battery deposit, the folded units appear sub-parallel and mainly straight. At the EV deposit, the folding is more complex as the defined part of the deposit occurs in the upper hinges of the folds.

Quartzite units reach up to 1,000 m in strike length and are generally thin (typically several metres thick, exceptionally up to 100 m). The graphitic carbon grade ("Cg") of the quartzite is typically below 1%, but in some cases, higher Cg grades occur in quartzite near its contact with paragneiss. Marble units are thin but extensive, with strike lengths of more than 1,000 m. The marble units do not contain significant Cg grades.

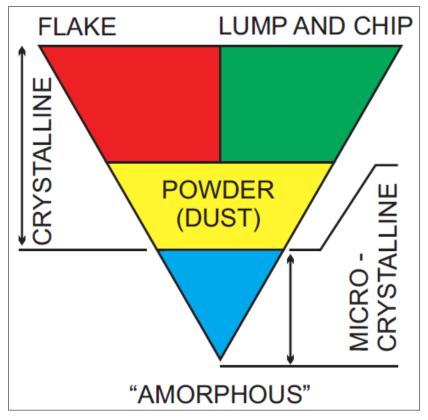


## 8. DEPOSIT TYPES

The following description of graphite deposit types was taken from Raponi (2021).

Natural graphite deposits of economic interest are grouped into three main categories, as noted below and illustrated in Figure 8-1:

- Microcrystalline
- Vein graphite (lump and chip)
- Crystalline flake graphite



Source: Modified from Simandl et al.,1995 Figure 8-1 – Main Categories of Natural Graphite

The mineralized zones on the Property belong to the crystalline flake graphite deposit type. Flake graphite can occur in marble, paragneiss, iron formation, quartzite, pegmatite, syenite and serpentinized ultramafics (Simandl et al., 1995). The most common hosts for economically significant crystalline flake deposits are paragneiss and marble subjected to upper amphibolite to granulite facies metamorphism.

The highest graphite grades in paragneiss-hosted deposits tend to occur along or near paragneiss-marble contacts. Most crystalline flake graphite deposits are mined in open pits. Crystalline flake graphite concentrate consists of flakes typically larger than 200 mesh (equivalent to 74  $\mu$ m). Fines produced during milling may be sold as graphite powder or dust.



#### 9. **EXPLORATION**

In the summer of 2015, Lomiko and Canada Strategic hired Consul-Teck Exploration Minière Inc. ("Consul-Teck") to conduct a surface prospecting and geological mapping program guided by the 2012 and 2013 field results.

Consul-Teck revisited the area of the La Loutre C showing, where previous grab samples yielded grades ranging from 0.8% to 1.7% Cg. Six (6) samples were collected and assayed, returning grades from 1.0% to 27.1% Cg. The location of the best assays corresponds to the position of the La Loutre C Showing as identified by SOQUEM, where three (3) of the historical samples had assayed 16.8%, 21.4% and 27.1% Cg.

Consul-Teck also revisited the area of the La Loutre B showing (EV deposit), where the 2012 samples had returned grades ranging from 0.3% to 22.04% Cg. A total of 25 grab samples were collected. The geological reconnaissance and sample work confirmed the presence of the La Loutre B showing, as identified by SOQUEM. Five (5) samples collected directly on the showing assayed 22.4% to 26.2% Cg. Another five (5) samples were collected to the south-southeast of the EV deposit discovery site, returning grades ranging from 14.1% to 21.1% Cg. In addition, to the east of the La Loutre B Showing, two (2) samples with high graphite grades (10.9% and 27.9% Cg) were obtained in graphite-bearing paragneiss.

The third area revisited by Consul-Teck was the Graphene-Battery Zone (now called the Battery deposit). A total of 58 samples were collected from this area to better define the graphite zone outlined at surface in 2012. The grab samples returned grades ranging from 0.2% to 18.5% Cg.

The final area revisited by Consul-Teck consisted of the Reignier B area, where grab sampling had returned grades of 0.9% to 10.2% Cg in 2012. A total of 39 samples were collected in this area to better define the graphite zone outlined at surface in 2012. The 2015 grab samples returned grades ranging from 0.7% to 16.9% Cg (Turcotte et al., 2016).



## 10. DRILLING

This item summarizes the issuer's 2014 to 2022 drilling campaigns.

Between 2014 and 2016, Consul-Teck managed the drilling and sampling program for Canada Strategic (Lavallée, 2015; Lavallée, 2016; Lavallée, 2017). In 2019, Consul-Teck managed the drilling and sampling program for Québec Precious Metals and Lomiko (Lavallée, 2019), and in 2022, Breakaway Exploration Management Inc. ("Breakaway") managed the drilling and sampling program for Lomiko.

## 10.1 Drilling Methodology

Drilling between 2014 and 2019 was conducted by Forages Val-d'Or Inc. of Val-d'Or (Quebec). In 2022, the drilling program was carried out by Forage Fusion Drilling Ltd of Hawkesbury (Ontario) of the EV zone and by Forage Difor of Riviere Heva, QC on the Battery zone. All drilling used NQ drilling barrels (47.756 mm core diameter) except for the drilling done by Forage Fusion, which used BTW diameter core (42.130mm core diameter).

Down-hole orientation surveys were performed using a north-seeking Champ Gyro. A gyro-based instrument is appropriate for rocks with significant proportions of magnetite.

The drill core was boxed and sealed at the drill rigs and delivered by road to the logging facility, where a technician took over the core handling. Between 2014 and 2019, the boxes were delivered to the Consul-Teck facility in Val-d'Or. In 2022, they were delivered to the issuer's logging facility in Namur (Quebec).

#### 10.2 Collar Surveys

Consul-Teck spotted the drill hole locations using a hand-held GPS.

Casings were left in place with an identification tag. Collar locations were surveyed by Corriveau J.L. & Assoc. Inc. of Val-d'Or.

## **10.3 Logging Procedures**

The drill core was logged and sampled by experienced geologists. A geologist marked the samples by placing a unique identification tag at the end of each core sample interval. Core sample lengths varied from 0.15 to 3 m, and sample contacts respected lithological contacts and/or changes in the appearance of mineralization or alteration (type and/or strength). Starting in 2022, photographing the core became part of the logging procedure.

Core samples were collected by splitting each sample interval in half lengthwise using a circular rock saw between 2014 to 2019 and with a hydraulic core splitter in 2022. One half of the core was placed in a plastic bag along with a detached portion of the unique bar-coded sample tag, and the other half of the core was returned to the core box with the remaining tag portion stapled in place. The tag number was marked in indelible ink on the outside of the bag, and the bag was sealed with a plastic tie-wrap.

The core boxes are stored in cross piles or outdoor racks. Individually bagged samples were placed in security-sealed rice bags along with the list of samples for delivery to the assay laboratory.



## 10.4 Drill Programs

The drilling data contained in the resource database is summarized for each deposit in Table 10-1. Drill hole collar locations on the Battery and EV deposits are shown in Figure 10-1.

Operator	Year Battery EV			Total			
		No. Holes	Length (m)	No. Holes	Length (m)	No. Holes	Length (m)
Canada	2014	25	3,137	-	-	25	3,137
Strategic	2015	37	5,056	18	2,406	55	7,462
	2016		-	10	1,551	10	1,551
Lomiko and Quebec Precious Metals	2019	-	-	21	2,985	21	2,985
Lomiko	2022	26	4,076	53	9,032	79	13,108
		88	12,269	102	15,974	190	28,243

Table 10-1 – Drilling Summary – All Zones

## 10.4.1 Canada Strategic: 2014-2016

Drilling in 2014 comprised 25 holes (3,137 m) on the Battery deposit. The holes targeted graphitic horizons identified by field mapping and previous sampling work. Individual holes were drilled at -50°, oriented northeast, and ranged from 36 to 291 m long. Significant intersections include the following (Lavallée, 2015):

- 9.37% Cg over 13.5 m and 8.42% Cg over 26.4 m in LL-14-05
- 9.02% over 14.7 m and 10.2% over 8 m in LL-14-14
- 11.18% Cg over 10.6 m in LL-14-19
- 11.23% Cg over 10.7 m in LL-14-23

Drilling in 2015 comprised 55 holes (7,462 m) on the Battery and EV deposits. Holes were drilled at  $-50^{\circ}$ , oriented northeast, and ranged from 51 to 252 m long. Significant intervals in the EV deposit include:

- 9% Cg over 90.75 m in LL-15-09, including 47.8 m at 13.66% Cg
- 14.64% Cg over 6.85 m in LL-15-05

Significant intervals in the Battery deposit include the following (Lavallée, 2016):

- 10.99% Cg over 6.85 m in LL-15-16
- 16.86% Cg over 4.0 m in LL-15-19
- 10.82% Cg over 7.4 m in LL-15-20

Drilling in 2016 focused solely on EV to test the extent of the graphitic mineralization, with 10 holes totalling 1,551 m. The holes were drilled at -50°, oriented northeast, with



an azimuth of 60°, ranging from 147 to 201 m long. Eight (8) of the holes encountered significant graphite values, including the following (Lavallée, 2017):

- 16.81% Cg over 44.1 m in hole LL-16-001
- 17.98% Cg over 22.3 m in hole LL-16-002
- 14.56% Cg over 110.8 m in hole LL-16-03
- 13.09% Cg over 31.5 m in hole LL-16-006

Drill hole collar locations of the 2014 to 2016 drilling campaigns are shown in Figure 10-2.



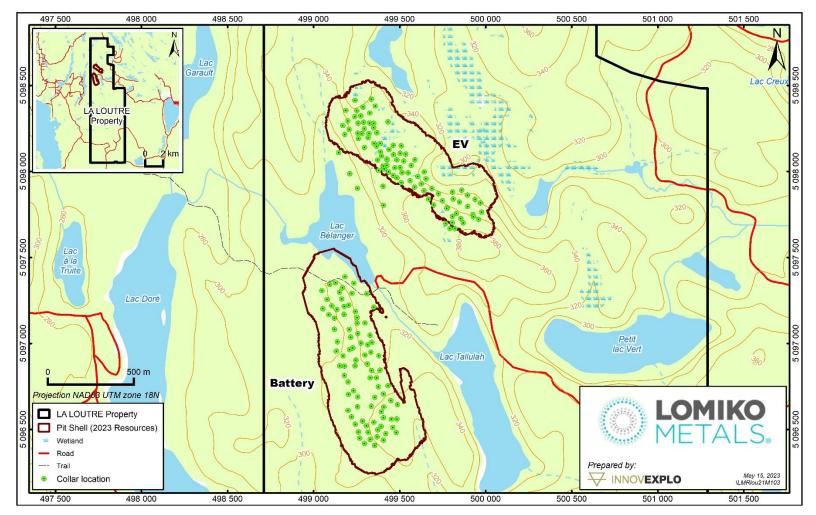


Figure 10-1 – Collar Locations of Holes Drilled on the Property



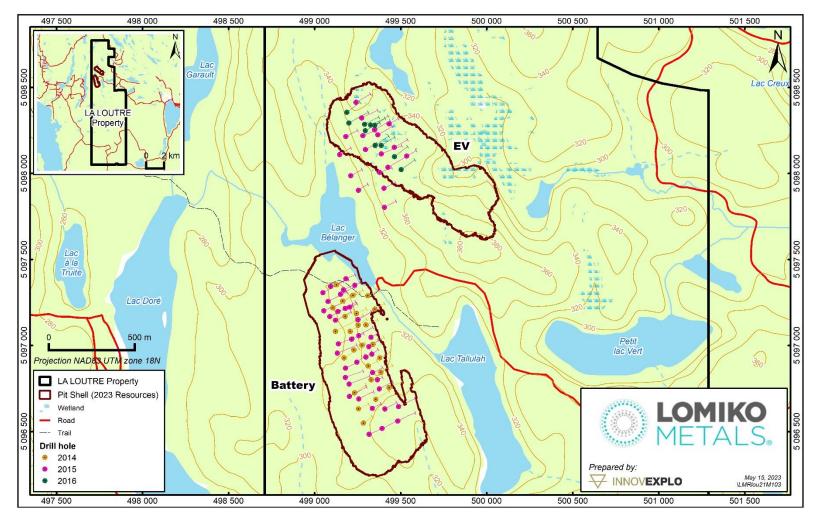


Figure 10-2 – Drill hole traces from the 2014-2016 drilling programs by Canada Strategic



## 10.4.2 Lomiko and Quebec Precious Metals: 2019

The Lomiko–Quebec Precious Metals joint venture drilled 21 NQ-sized holes totalling 2,985 m between February 7 and March 15, 2019 (Figure 10-3). The program was designed to identify southeast extensions in the EV deposit, previously known as the Refractory Zone. This deposit appears as a moderately dipping lens approximately 200 m wide, 900 m long and with a vertical extend of 120 m.

Significant intervals include the following (Lavallée, 2019):

- 9.89% Cg over 103.5 m in DDH LL-19-01
- 3.73% Cg over 130.1 m in DDH LL-19-03
- 4.8% Cg over 116.9 m in DDH LL-19-15
- 7.56% Cg over 47.30 m in DDH LL-19-17
- 7.14% Cg over 87.9 m in DDH LL-19-16
- 2.73% Cg over 54 m in DDH LL-19-08
- 12.38% Cg over 16.30 m in DDH LL-19-18

#### 10.4.3 Lomiko 2022

A 79-hole infill and extension drilling program (13,108 m) of which, 53 of these, totaling 9,032 m, were drilled in the EV deposit and 26 holes totaling 4,076 m were drilled in the Battery deposit was completed on September 13, 2022. The objective of this drilling was to better understand the extent and quality of the deposits and provide the required inputs for a pre-feasibility study. A new zone of graphitic carbon was discovered in marbles and to the certain extent in quartzites. EV deposit remains open at the southeast and northeast end. Based on the drill results it is evident that Battery deposit remains open to the south and at the depth.

Significant intervals include the following:

- 11.64% Cg over 42 m in DDH LL-22-018
- 12.7% Cg over 46.5 m in DDH LL-22-031
- 8.14% Cg over 148.5 m in DDH LL-22-035
- 7.09% Cg over 210.9 m in DDH LL-22-042
- 7.6% Cg over 119.8 m in DDH LL-22-044
- 4.99% Cg over 126 m in DDH LL-22-050
- 4.49% Cg over 144.3 m in DDH LL-22-054
- 10.37% Cg over 64 m in DDH LL-22-074

A summary of drilling data is given in Table 10-2. The collar locations are given in Figure 10-4.

# Table 10-2 – Weight averaged graphitic carbon-bearing drill intersections (not true thickness) from the 2022 drilling program

Hole #	From (m)	To (m)	Interval (m)	% Cg	Notes
LL-22-003	57.1	102.1	45.0	1.22	



		126.9	156.9	30.0	2.60	
		211.1	232.1	21.0	6.09	New graphite zone discovered in marble
		7.7	60.7	53.0	4.83	
LL-22-008	including	52.3	60.7	8.4	17.93	
LL-22-010		7.3	29.0	21.7	9.73	
		30.5	129.5	99.0	2.76	
		95.0	120.5	25.5	4.59	
		7.0	49.0	42.0	11.64	
LL-22-018		100.5	168.0	67.5	1.82	
	including	126.0	139.5	13.5	4.25	
		57.0	132.0	75.0	2.84	Open above 57.0 m
LL-22-023	including	126.0	132.0	6.0	14.86	
LL-22-031		169.0	215.5	46.5	12.70	Open below 215.5m
LL-22-035		6.0	154.5	148.5	8.14	Open down hole from 148.5 m
22 22 000	including	13.5	73.5	60.0	15.09	
LL-22-042		4.5	215.4	210.9	7.09	Open below 216.m (EOH), 2 zones connected
	including	4.5	48.0	43.5	15.31	
		81.2	201.0	119.8	7.6	Stopped in mineralization
LL-22-044		170.0	231.0	61.0	2.99	Open below 231.0m (EOH)
	including	211.5	231.0	19.5	7.63	
		13.0	139.0	126.0	4.99	
LL-22-050	including	14.5	37.0	22.5	10.67	
LL-22-054		46.7	191.0	144.3	4.49	Hole stopped in mineralization at 191.0m; sampling complete
		31.5	58.5	27.0	5.62	
LL-22-060		89.0	108.5	19.5	3.14	
		6.0	15.0	9.0	2.75	
LL-22-062		30.5	33.5	3.0	5.16	
		55.0	100.0	45.0	6.00	
		48.0	74.5	26.5	11.42	
LL-22-073		118.0	189.2	71.2	1.44	
LL-22-074		27.0	91.0	64.0	10.37	



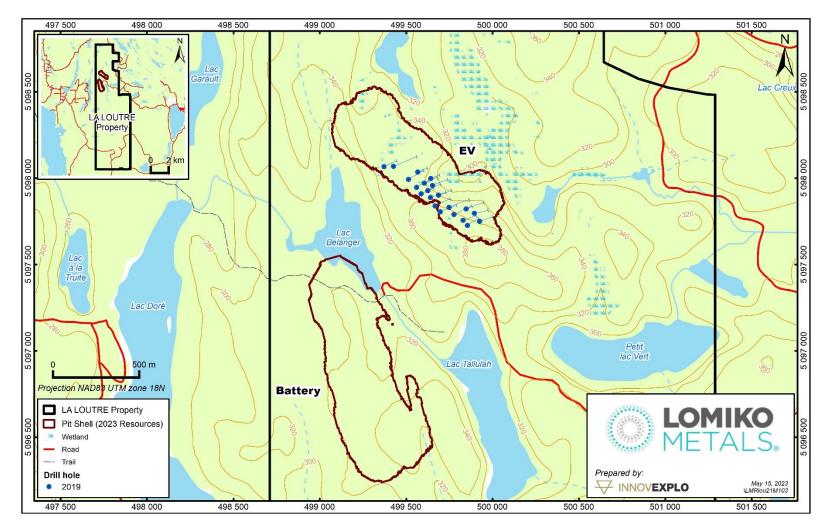


Figure 10-3 – La Loutre 2019 drilling program



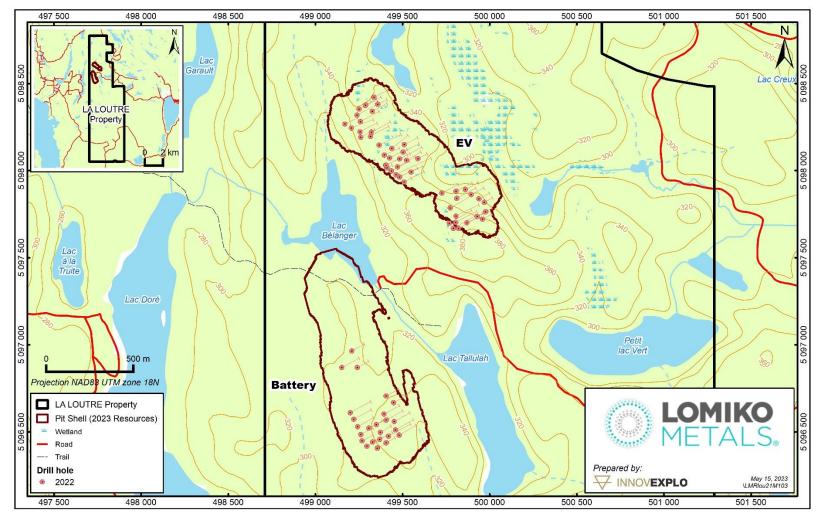


Figure 10-4 – La Loutre 2022 drilling program



#### 11. SAMPLE PREPARATION, ANALYSES AND SECURITY

This item describes the sample preparation, analysis and security procedures for the 2014 to 2022 diamond drilling campaigns (the "2014-2022 Programs"). The issuer's geology team provided the information discussed below. The authors reviewed and validated the information for the 2014-2022 Programs, including the QA/QC procedures and results.

## **11.1** Core Handling, Sampling and Security

Between 2014 and 2016, Consul-Teck managed the drilling and sampling program for Canada Strategic Metals (Lavallée, 2015, 2016 and 2017). In 2019, Consul-Teck managed the drilling and sampling program for Quebec Precious Metals and Lomiko (Lavallée, 2019), and in 2022, Breakaway Exploration Management Inc. ("Breakaway") managed the drilling and sampling program for Lomiko.

The drill core was boxed and sealed at the drill rigs and delivered by road to the logging facility, where a technician took over the core handling. Between 2014 and 2019, the boxes were delivered to the Consul-Teck facility in Val-d'Or (Quebec). In 2022, they were delivered to the issuer's logging facility in Namur (Quebec).

The drill core was logged and sampled by experienced geologists. A geologist marked the samples by placing a unique identification tag at the beginning of each core sample interval. Core sample lengths varied from 0.15 to 3 m, and sample contacts respected lithological contacts and/or changes in the appearance of mineralization or alteration (type and/or strength). Starting in 2022, photographing the core became part of the logging procedure.

Core samples were collected by splitting each sample interval in half lengthwise with a hydraulic core splitter. One half of the core was placed in a plastic bag along with a detached portion of the unique bar-coded sample tag, and the other half of the core was returned to the core box with the remaining tag portion stapled in place. The tag number was marked in indelible ink on the outside of the bag, and the bag was sealed with a plastic tie-wrap.

In 2014 and 2015, core duplicates and blanks were added to the sample stream at a rate of one of each per batch of 30 samples. In 2019, two standard samples (certified reference materials or "CRMs") were added to the sample stream. In 2022, one standard and one blank were included in each batch of 21 samples.

The core boxes are stored in cross piles or outdoor racks. Individually bagged samples were placed in security-sealed rice bags along with the list of samples for delivery to the assay laboratory.

#### 11.2 Laboratory Accreditation and Certification

The International Organization for Standardization ("ISO") and the International Electrotechnical Commission ("IEC") form the specialized system for worldwide standardization. ISO/IEC 17025 General Requirements for the Competence of Testing and Calibration Laboratories sets out the criteria for laboratories wishing to demonstrate that they are technically competent, operating an effective quality system, and able to



generate technically valid calibration and test results. The standard forms the basis for the accreditation of competence of laboratories by accreditation bodies.

Between 2014 and 2019, samples were prepared at ALS Ltd ("ALS") in Val-d'Or and assayed in Vancouver (British Columbia). In 2022, samples were prepared and assayed at Activation Laboratories Ltd ("Actlabs") in Ancaster (Ontario).

ALS and Actlabs received ISO/IEC 17025 accreditation through the Standards Council of Canada ("SCC"). Both are commercial laboratories independent of the issuer and have no interest in the Project.

## **11.3** Laboratory Preparation and Assays

ALS' methodology for the 2014-2019 samples is described below:

- Samples are sorted, bar-coded, and logged into the ALS tracking system. They are then placed in the sample drying room.
- Samples are crushed to 70% passing 2 mm and split using a Jones riffle splitter. A 250 g split is pulverized to 85% passing 75 μm.
- A 0.1 g pulp sample is leached with dilute HCl acid to remove inorganic carbon (carbonate). After filtering, washing and drying, the remaining sample residue is roasted at 425 °C to remove any organic carbon.
- The roasted residue is then analyzed for graphitic carbon ("Cg") using a hightemperature LECO furnace with infrared detection. (ALS code C-IR18; detection limit of 0.02%).
- Assay results are provided in Excel spreadsheets, and the official certificate (sealed and signed) as a PDF.

Actlabs' methodology for the 2022 samples is described below:

- Samples are sorted, bar-coded, and logged into the Actlabs tracking system. They are then placed in the sample drying room.
- Samples are crushed to 80% passing 2 mm, and split using a Jones riffle splitter. A 250 g split is pulverized to 95% passing 105 μm.
- Sample pulps are then analyzed for Cg by mild hydrochloric acid digestion followed by combustion in an infrared furnace (Actlabs code 8Cg; detection limit of 0.05%).
- Assay results are provided in Excel spreadsheets, and the official certificate (sealed and signed) as a PDF.

## 11.4 Quality Assurance and Quality Control (QA/QC)

In 2014 and 2015, the issuer's QA/QC program for drill core included inserting one blank and one core duplicate into each batch of 30 samples as an analytical check for the laboratory batches. In 2019, two standard samples (certified reference materials or "CRMs") were added to the QA/QC protocol. In 2022, the issuer's QA/QC program included inserting one standard and one blank into each batch of 21 samples. Since 2014, about 7.5% of the samples were control samples in the sampling and assaying process (Table 11-1).



Year	Assay	Blank	CRM	Core Duplicate	QA/QC To	tal QA/QC (%)
2014	2,011	84	0	84	168	8.4
2015	4,604	88	0	60	148	3.2
2016	536	20	0	21	41	7.6
2019	1,674	46	93	47	186	11.1
2022	3,816	201	200	0	401	10.5
Total	12,641	439	293	212	944	7.5

Table 11-1 – QA/QC sample summary by year

## 11.4.1 Certified reference materials (standards)

Standards were not part of the QA/QC protocol between 2014 and 2016. This issue was addressed in 2019.

Accuracy was monitored by inserting CRMs at a ratio of two (2) for every 30 samples in 2019 and one (1) for every 21 samples in 2022. The standards were supplied by OREAS in Sudbury (Ontario). A QC failure was defined as the assay result for a standard falling outside three standard deviations ("3SD"). Gross outliers were excluded from the standard deviation.

The overall success rate was 97% (Table 11-2). Outliers did not show a persistent analytical bias (either below or above the 3SD limit). They were close to the 3SD threshold and appeared to be isolated errors, as other standards and blanks processed from the same batches passed. Consequently, no batch re-runs were performed.

Figure 11-1 shows an example of a control chart for the standard OREAS 725 assayed by Actlabs. A similar control chart was prepared for each CRM to visualize the analytical concentration value over time.

OREAS CRM	No. of Assays	CRM value Cg (%)	Average Cg (%)	Accuracy (%)	Precision (%)	Outliers	Gross Outliers	Percent passing QC
GR-1	46	3.12	3.18	2.0	3.3	1	0	98
GR-4	47	1.01	1.03	1.9	5.7	1	0	98
722	44	2.03	1.98	-2.6	2.5	2	0	95
723	29	5.87	5.74	-2.3	4.1	1	0	97
724	14	12.06	11.82	-2.0	2.4	0	0	100
725	112	24.52	24.16	-1.5	2.0	5	0	96

Table 11-2 - Results of standards used in 2019 and 2022 on the Project



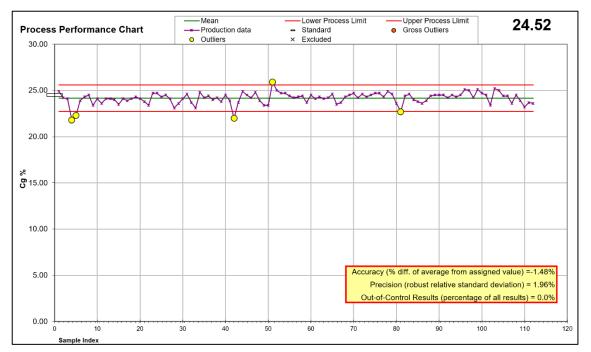


Figure 11-1 – Control chart for standard OREAS 725 assayed by Actlabs

The results exhibit a negative bias in terms of accuracy, with an average of -0.67% and a precision of around 3.1% for representative standards. Both parameters meet standard industry criteria.

## 11.4.2 Blank samples

Contamination was monitored by the routine insertion of a barren sample (blank) which goes through the same sample preparation and analytical procedures as the core samples.

Between 2014 and 2019, one blank was included in each batch of 30 samples. In 2022, one blank was included in each batch of 21 samples.

A total of 439 blanks were inserted in the batches from the 2014-2022 Programs. The blank material consisted of ornamental silica pebbles. A general guideline for success during a contamination QC program is a rate of 90% of blank assay results not exceeding the acceptance limits of five times (5x) the detection limit. The detection limit was 0.02% with the ALS analytical method and 0.05% with the Actlabs method. The success rate is 95% for ALS and 97% for Actlabs (Table 11-3 and Figure 11-2).

Laboratory	Acceptance limit (%)	Quantity inserted	Quantity failed	Percent passing QC	
ALS	0.1	238	13	95%	
Actlabs	0.25	201	7	97%	

Table 11-3 – Results of blanks used between 2014 and 2022



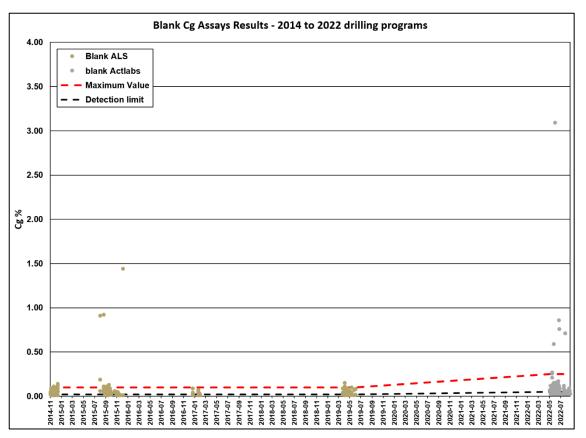


Figure 11-2 – Time-series plot for blank samples assayed by ALS and Actlabs between 2014 and 2022

#### 11.4.3 Field duplicates

From 2014 to 2019, the QA/QC program included quarter-core duplicate samples to assess the "nugget effect" (mineralization heterogeneity) within individual sampled drill core intervals. The issuer inserted 205 quarter-core duplicates into the sample stream. The difference between the analyses of the original and quarter-core duplicate samples is shown in Figure 11-3.

Results show good precision with a coefficient of determination ( $R^2$ ) of 0.99. Results also show a good accuracy monitored by the linear regression line (between the 10% tolerance limit). This high level of repeatability shows that graphite distribution in the core seems homogenous.



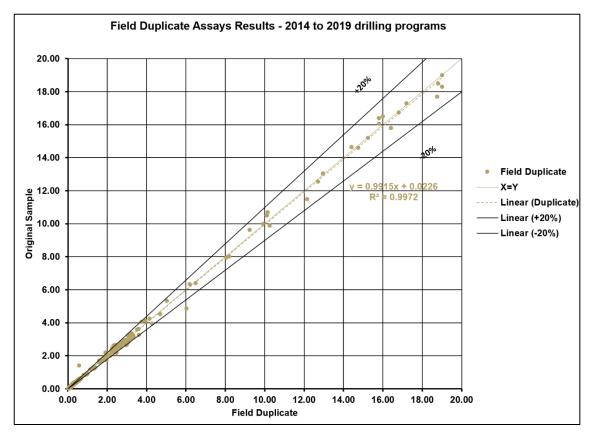


Figure 11-3 – Linear graph comparing original and field duplicate samples analyzed between 2014 and 2019

## 11.5 Conclusion

The authors are of the opinion that the sample preparation, security, analysis and QA/QC protocols followed generally accepted industry standards and that the data is valid and of sufficient quality for a mineral resource estimation.



### 12. DATA VERIFICATION

This item covers the data verification of the diamond drill hole databases supplied by the issuer (the "Lomiko Database"). The database close-out date for this Technical Report is February 27, 2023.

The author's data verification included visits to the Property, drill sites and core logging facilities and an independent review of the data for selected drill holes (surveyor certificates, assay certificates, QA/QC program and results, downhole surveys, lithologies, alteration and structures).

#### 12.1 Site visit

The author, Marina lund, visited the Project and the issuer's core shack from July 27 to July 28, 2022. Onsite data verification included a general visual inspection of the property and a review of drill collar location coordinates. At the core shack, the author examined selected mineralized core intervals and reviewed the QA/QC program and the descriptions of lithologies, alteration and mineralization. She also performed independent check assays on selected intercepts.

#### 12.2 Core Review

The core boxes were found to be in good order and properly labelled, and the sample tags were still present. The wooden blocks at the beginning and end of each drill run were still in the boxes and matched the indicated footage on each box. The author validated the sample numbers and confirmed the presence of mineralization in the reference half-core samples (Figure 12.1).





A) Mineralized drill core with millimetric graphite flakes from hole LL-22-032; B) Hydraulic core splitter; C) Photograph showing proper storage and labelling of the drill core boxes and sample tags still stapled in the boxes.

# Figure 12-1 – Photographs taken during the drill core review



## 12.3 Independent Resampling

During the site visit, the author selected five (5) quarter-split core intervals to be sawed by the issuer's employees. The author bagged the samples and transported them to ALS for analysis.

The resampling results (Table 12.1) confirmed the ranges of grades in the mineralized intervals. The results showed good reproducibility of the original assays. The author believes the field-duplicate results from the independent resampling program are reliable and valid for this type of gold project.

Drill hole	Original sample	e	Duplicate sa	Duplicate sample		
Drill note	Sample no.	Cg (%)	Cg (%)	Sample no.		
LL-22-32	1141931	18.1	18.75	K504280		
LL-22-36	1142189	2.12	2.95	K504281		
LL-22-44	1142772	9.49	10.15	K504282		
LL-22-03	1141122	11.2	11.8	K504283		
LL-22-09	1141295	16	14.45	K504284		
	Average	11.38	11.62			
	Minimum	2.12	2.95			
Maximum		18.1	18.75			
Corre	lation coefficient		0.98			

#### Table 12-1 – Summary of independent resampling



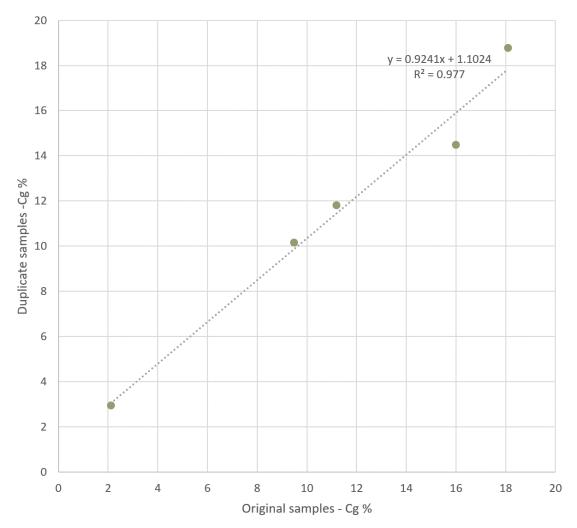


Figure 12-2 – Graph of original versus resampled duplicate samples

#### 12.4 Databases

## 12.4.1 Drill hole locations

The drill hole collars were surveyed by Corriveau J.L. & Assoc. Inc. using a GPS base station. The author confirmed the coordinates of 16 selected surface holes using a handheld GPS (Figure 12-3), then compared them to the database. All results had acceptable precision.

The collar locations in the issuer's database are considered adequate and reliable.





A) LL-19-17 collar; B) LL-14-05 collar; C) Outcrop of graphitic paragneiss on the Property. **Figure 12-3 – Examples of onsite location verifications** 



### 12.4.2 Downhole survey

Down-hole orientation surveys have been performed using a north-seeking Champ Gyro. The use of a gyro-based instrument is appropriate for rock with significant proportions of magnetite.

The downhole survey information was verified for 5% of the holes used in the 2023 MRE. Minor errors of the type normally encountered in a project database were identified and corrected.

#### 12.4.3 Assays

The author had access to the assay certificates for the 2014 to 2022 drilling programs. The assays in the database were compared to the original certificates provided by the laboratory. The verified holes represent 5% of the database.

Minor errors of the type normally encountered in a project database were identified and corrected.

## 12.4.4 Conclusions

The author believes that the data verification process demonstrates the validity of the data and the protocols for the Project. The author considers the database for the Project to be valid and of sufficient quality to be used for the mineral resource estimate herein.



#### 13. MINERAL PROCESSING AND METALLURGICAL TESTING

#### 13.1 Introduction

Two metallurgical process development programs were completed on samples from the Project. The test programs were completed at SGS in Lakefield (Ontario). Both were done on two different sets of variability samples and two master composites obtained from the variability samples. The first test program performed in 2021 used four variability samples, two from the EV deposit and two from the Battery deposit. The second test performed in 2022 used 12 composites and most of them were collected from the EV deposit. The master composite was generated by combining weighted sub-samples of variability samples that represented the first several years of expected mining operation in EV deposit. It is then considered that the 2022 test program is more appropriate for the prediction of metallurgical performances and why the results from the 2021 test program are not included in this report.

The metallurgical programs consisted of sample preparation, comminution tests, flowsheet development tests, and preliminary static environmental tests. The primary objectives of the program were as follows:

- Develop a flowsheet and conditions for the La Loutre mineralization that maximize the graphite concentrate grade and graphite recovery into a flotation concentrate, while minimizing flake degradation;
- Simulate closed-circuit performance with a locked cycle flotation test;
- Explore the potential of producing a non-acid generating low-sulphur tailings product through desulphurization of the graphite circuit tailings; and
- Processing a bulk sample to generate approximately 10 kg of flotation concentrate for downstream testing.

#### 13.2 2022 Metallurgical Test Program

A metallurgical testing program was completed at SGS in 2022 on a series of composite samples (Lomiko, 2022). A total of 12 composites were generated and shipped to SGS. The purpose of the variability composites was to quantify the range of comminution properties encountered at the Project and to validate the robustness of the proposed flowsheet and conditions.

The 12 composites were split in two series, one for the flotation testing and one for the comminution testwork. Three types of composites were selected for each of the two planned open pits called Battery and EV. The three (3) types of composites were:



- Mine Plan Composites: These composites represent a specific time • period of the planned mining operation.
- Domain Composites: These composites represent unique domains or • lithologies that have been identified for the Project.
- Grade composites: Expected variation of the feed grade the mill are • addressed with grade composites.

A list of the composites that were subjected to the 2022 test program is presented below:

Grinding

- Mine Plan Composites: •
- Flotation 0

0	COMP MP FLOT EV 2	COMP MP COM EV 2
	COMP_MP_FLOT_EV_3	

- COMP\_MP\_FLOT\_EV\_3
- COMP MP FLOT EV 4 COMP\_MP\_COM\_EV\_4 COMP\_MP\_COM\_EV\_5
- COMP\_MP\_FLOT\_EV\_5
  - Domain Composites:

0	Flotation	Grinding
0	COMP_MP_FLOT_EV_2	0
0	COMP_MP_FLOT_EV_3	COMP_MP_COM_EV_3
0	COMP_MP_FLOT_BAT_2	COMP_MP_COM_BAT_2

- Grade Composites:
- Flotation

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0	COMP_MP_FLOT_EV_1	COMP_MP_COM_EV_1
0	COMP_MP_FLOT_EV_2	COMP_MP_COM_EV_2
0	COMP_MP_FLOT_EV_3	COMP_MP_COM_EV_3
0	COMP_MP_FLOT_EV_4	COMP_MP_COM_EV_4
0	COMP_MP_FLOT_BAT_1	COMP_MP_COM_ BAT_1

The origin of the different composites is shown in Figure 13-1.

The Mine Plan Composites were also used to create a Master EV Composite that was used for the flowsheet optimization program prior to variability flotation testing.



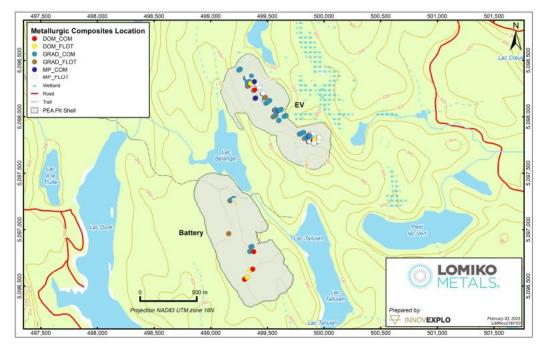


Figure 13-1 – Composite location

## 13.2.1 Sample Characterization

The samples of the flotation composites, including the Master EV Master composite were submitted to chemical and mineralogical analysis. The results of the carbon speciation, sulphur, and specific gravity analysis are presented in Table 13-1. Further, the results of the whole rock analysis ("WRA") are shown in Table 13-2. The modal data of the Master Composite and twelve (12) variability composites is depicted in Figure 13-2.



Sample ID			Spec.				
Sample ID	C(g)	C(t)	CO <sub>3</sub>	тос	S	S <sup>=</sup>	Grav
EV Master Comp	5.84	6.77	5.76	5.62	2.17	2.06	2.81
COMP_MP_FLOT_EV_2	8.65	10.7	13.4	8.05	2.24	2.22	2.78
COMP_MP_FLOT_EV_3	6.37	7.76	8.8	6.00	2.58	2.53	2.81
COMP_MP_FLOT_EV_4	6.30	6.52	3.59	5.80	2.26	1.88	2.83
COMP_MP_FLOT_EV_5	4.80	5.25	3.66	4.52	1.82	1.64	2.81
COMP_DOM_FLOT_EV_2	10.9	11.5	8.18	9.90	2.37	2.10	2.84
COMP_DOM_FLOT_EV_3	9.84	10.8	5.68	9.70	2.66	2.47	2.79
COMP_DOM_FLOT_BAT_2	4.23	4.65	3.07	4.00	2.46	2.16	2.84
COMP_GRAD_FLOT_EV_1	2.95	3.28	2.14	2.90	2.32	2.16	2.83
COMP_GRAD_FLOT_EV_2	1.30	1.65	1.62	1.30	2.09	1.91	2.86
COMP_GRAD_FLOT_EV_3	4.30	5.51	6.89	4.10	2.06	1.84	2.83
COMP_GRAD_FLOT_EV_4	5.04	5.85	5.03	4.80	2.55	2.33	2.87
COMP_GRAD_FLOT_BAT_1	5.23	5.51	2.24	5.10	1.73	1.62	2.82

 Table 13-1 – Carbon Speciation, Sulphur and Specific Gravity

C(g): Graphitic Carbon; C(t): Total Carbon; CO3: Inorganic Carbon expressed as CO3 species; TOC: Total Organic Carbon; S: Total Sulfur; S=: Sulfur as metal sulphide.

Comple TD	Assays, %													
Sample ID	SiO <sub>2</sub>	Al <sub>2</sub> O <sub>3</sub>	Fe <sub>2</sub> O <sub>3</sub>	MgO	CaO	Na <sub>2</sub> O	K <sub>2</sub> O	TiO <sub>2</sub>	P <sub>2</sub> O <sub>5</sub>	MnO	Cr <sub>2</sub> O <sub>3</sub>	V2O5	LOI	Sum
EV Master Comp	47.6	10.6	5.28	4.85	10.5	1.11	5.50	0.91	0.28	0.04	0.01	0.02	11.0	97.7
COMP_MP_FLOT_EV_2	37.3	8.88	5.53	3.87	16.9	1.00	3.31	0.63	0.3	0.04	< 0.01	0.02	17.7	95.5
COMP_MP_FLOT_EV_3	42.9	11.5	6.26	3.40	13.7	1.30	3.93	0.84	0.28	0.04	< 0.01	0.02	12.1	96.2
COMP_MP_FLOT_EV_4	50.1	10.4	5.43	5.34	8.81	1.06	5.97	0.91	0.32	0.04	0.01	0.02	10.3	98.7
COMP_MP_FLOT_EV_5	51.2	10.9	4.64	5.62	8.55	1.05	6.61	1.02	0.26	0.05	< 0.01	0.02	9.03	99.0
COMP_DOM_FLOT_EV_2	42.9	6.98	4.70	5.90	14.7	1.12	3.56	0.59	0.71	0.04	0.01	0.02	14.7	96.0
COMP_DOM_FLOT_EV_3	45.1	11.5	6.57	2.63	10.2	1.24	4.53	0.78	0.29	0.03	0.01	0.02	14.4	97.2
COMP_DOM_FLOT_BAT_2	53.1	12.7	7.12	2.68	9.65	1.17	3.47	0.83	0.18	0.03	0.01	0.02	6.71	97.7
COMP_GRAD_FLOT_EV_1	50.9	16.1	6.78	3.01	8.26	1.81	4.74	1.01	0.11	0.03	0.02	0.02	4.69	97.5
COMP_GRAD_FLOT_EV_2	55.4	11.5	6.32	6.03	7.08	1.16	5.93	0.92	0.20	0.05	0.02	0.02	4.02	98.6
COMP_GRAD_FLOT_EV_3	50.9	10.2	5.47	3.65	12.7	1.32	3.19	0.72	0.17	0.04	< 0.01	0.01	8.04	96.4
COMP_GRAD_FLOT_EV_4	49.2	8.7	5.65	6.38	11.9	0.72	4.54	0.61	0.62	0.05	0.01	0.01	8.37	96.8
COMP_GRAD_FLOT_BAT_1	52.5	13.4	5.28	3.75	8.62	1.16	4.11	0.93	0.22	0.04	0.01	0.02	8.24	98.3

## Table 13-2 – Whole Rock Analysis



		Lominko Metals												
Project/LIMS			18310-02 / MI5049-AUG22											
Sample		EV Master Comp	EV-FLOT-EV-2 Comp	MP-FLOT-EV-3 Comp	MP-FLOT-EV-4 Comp	MP-FLOT-EV-5 Comp	COMP-DOM- FLOT-EV-2	COMP-DOM- FLOT-EV-3	COMP-DOM- FLOT-BAT-2	COMP-GRAD- FLOT-EV-1	COMP-GRAD- FLOT-EV-2	COMP-GRAD- FLOT-EV-3	COMP-GRAD- FLOT-EV-4	COMP-GRAD- FLOT-BAT-1
Org Pyri Oth Gun Feid Amp Pyr Mineral Mass (%) Mineral Mass (%) Titat Iron Oth Gain Cala	rrhotie her Sulphides artz Idspars mphibole cas/Chlorite/Clays anite in Oxide her Oxides smet skite her Carbonates safe	7.45 0.14 1.93 4.97 0.03 10.0 38.4 1.20 11.8 9.26 1.98 0.11 0.16 0.00 10.98 0.24 0.84 0.55	5.70 0.19 3.50 4.19 0.02 9.24 30.5 1.13 10.0 7.40 1.45 0.18 0.04 0.00 25.1 0.34 0.34 0.34 0.26	5.21 0.15 2.87 6.38 0.02 8.54 37.9 1.08 11.1 7.05 2.24 0.18 0.10 0.0 16.1 0.27 0.53 0.24	5.46 0.18 1.78 5.71 0.02 10.3 42.7 1.17 15.0 7.43 1.61 0.13 0.11 0.00 7.27 0.16 0.80 0.88	5.37 0.17 2.14 4.24 0.01 8.35 46.0 1.36 1.4.2 8.05 1.4.5 1.45 0.09 0.13 0.00 6.74 0.60 0.54 0.62	9.53 0.30 4.68 2.64 0.05 9.71 1.01 2.0.2 3.24 1.02 0.10 0.12 0.00 16.1 1.47 1.65 0.11	6.72 0.15 3.65 6.06 0.07 10.7 39.9 1.62 8.6 6.28 1.50 0.31 0.13 0.13 0.01 13.0 0.22 0.58 0.45	3.68 0.11 0.63 7.94 0.02 20.2 40.7 1.65 9.6 6.70 1.55 0.22 0.11 0.00 5.93 0.30 0.27 0.34	3.38 0.08 1.83 7.04 0.03 10.2 52.6 1.23 7.8 9.39 1.80 0.21 0.13 0.00 3.60 0.13 0.17 0.38	2.15 0.04 2.67 6.25 0.02 12.6 41.3 2.13 16.9 10.42 1.05 0.15 0.04 0.00 3.00 0.13 0.35 0.87	3.90 0.11 1.54 5.33 0.01 17.6 35.6 1.20 1.3.1 4.80 1.46 0.23 0.07 0.00 14.1 0.55 0.52 0.21	4.63 0.12 2.48 6.53 0.01 14.3 30.1 1.06 19.7 7.41 1.18 0.14 0.11 0.00 10.5 0.29 1.18 0.21	4,44 0.15 2,37 5,32 0,01 17.7 43.0 1,45 9,5 8,72 1,84 0,11 0,08 0,00 4,02 0,21 0,37 0,73

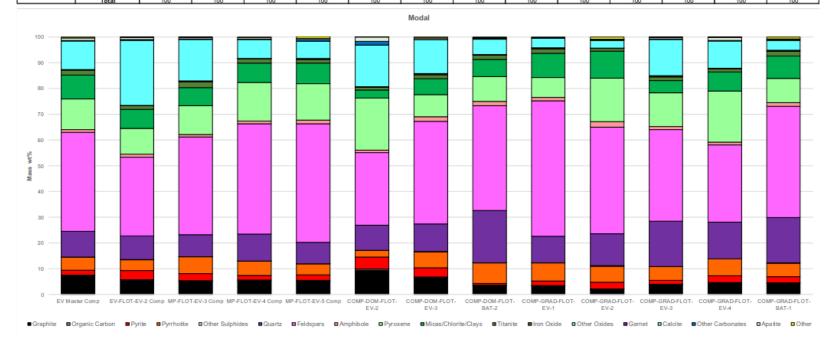


Figure 13-2 – Modal Analysis



The results from the analysis show that the mineral composition of all the samples is quite similar, containing the same mineralogical species with some variation of grades. The presence of iron sulphide, pyrite and pyrrhotite, indicate that there is an acid generation potential but higher concentration of calcite indicate that a sufficient neutralization potential may be present. An Induced Couple Plasma scan ("ICPscan") indicating the concentration of a large series of elements was also performed as well as a liberation analysis but are not presented here. The liberation data was useful for determining the flotation flowsheet approach, but the flotation test results are the only one used for determining the performances and this is why those results are not presented in this document.

## 13.2.2 Comminution Tests

The 12 composites prepared for the comminution were submitted to the following testing:

- Bond Abrasion Test ("Ai");
- Bond Rod Mill Grindability Test ("RWi");
- Bond Ball Mill Grindability Test ("BWi").

The results from all the tests are presented in Figure 13-3 to Figure 13-5 including the results from the SGS database containing the data of many other projects.



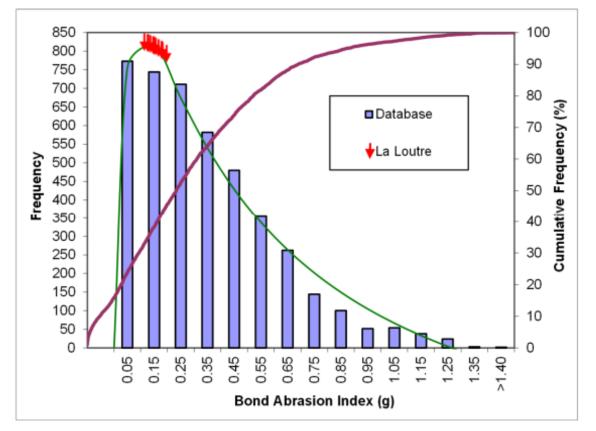


Figure 13-3 – Abrasion test results



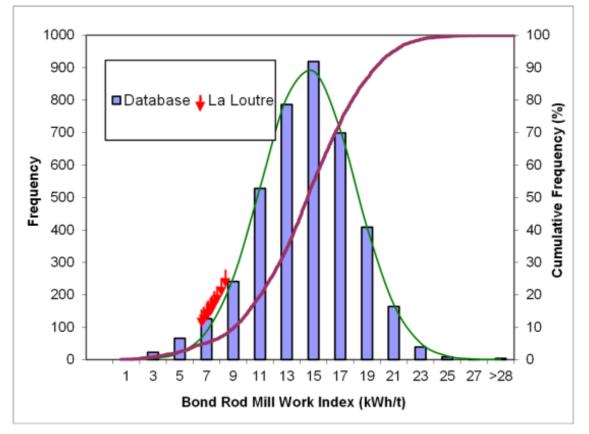


Figure 13-4 – RWi test results



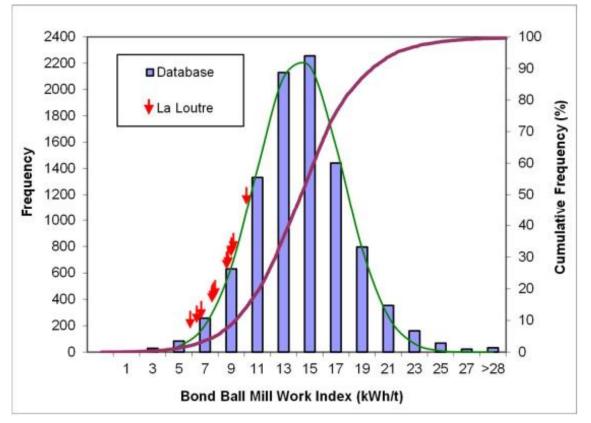


Figure 13-5 – BWi test results

The abrasion indices yielded low values of 0.112 to 0.195, which places the La Loutre mineralization into the category of very low to low abrasivity. This index is located in the same range as many other projects indicating that crushing and grinding wearing parts will have an operational life similar to other worldwide projects. The values of the BWi and RWi work indexes (RWi of 6.8 to 8.4 kWh/t and BWi of 5.8 to 10.1 kWh/t) are low compared to other projects indicating that the grinding equipment sizes will be generally smaller compared to other projects with similar throughput and grind size target and that a lower grinding energy will be required.

## 13.2.3 Open Circuit Flotation Testing

As a first step, a series of batch laboratory tests were conducted with the master composite to develop a flowsheet and conditions that are appropriate for the material of the Project. Three (3) rougher flotation tests were carried out with and without flash flotation. The purpose of flash flotation is to recover large flakes from a coarse grinding circuit circulating stream before they are damaged (flake size reduction) in the mill. The flash flotation was performed on -3.4 mm material before grinding to simulate commercial mill operation. The rougher test was performed on ground flash flotation tails or directly on ground feed for the test without flash flotation. It was identified that including the flash flotation circuit was the best option because the final grade remains the same while preventing large flake degradation.



Additionally, the tailings from the rougher stage were subjected to sulphide flotation and magnetic separation to reduce the sulphide content of the tailings. The sulphide concentrate would then be disposed in such a way that acid generation could be controlled. The results of those tests are presented in Table 13-3.

Test	Product	Weight	Assa	ys,%	% Dist	ribution
Test	Product	%	C(t, g)	S	C(t, g)	S
F1	Flash Conc	10.2	41.9	0.97	67.1	4.5
1 11	Flash & Ro Conc	20.9	29.8	1.37	97.9	13.2
Flash & Rougher	Graphite Rougher Tails	79.1	0.17	2.40	2.1	86.8
r lastr & Rougher	Sulphide Rougher Tails	69.4	0.07	0.04	0.7	1.2
Magsep Tails	MagSep Tails	68.1	0.06	0.03	0.6	0.9
$P_{80} = 143$ microns	Head ( calc. )	100.0	6.38	2.18	100.0	100.0
F80 - 145 microns	Head (direct)		5.84			
F2	Flash Conc	10.2	40.2	1.22	65.1	5.6
12	Flash & Ro Conc	20.7	29.3	1.46	96.9	13.8
Flash & Rougher	Graphite Rougher Tails	79.3	0.25	2.39	3.1	86.2
	Sulphide Rougher Tails	67.5	0.07	0.03	0.8	1.1
Magsep Tails	MagSep Tails	65.8	0.06	0.02	0.6	0.6
$P_{80} = 169$ microns	Head ( calc. )	100.0	6.29	2.20	100.0	100.0
P80 - 109 microns	Head (direct)		5.84			
F3	Rougher Conc	21.3	28.4	1.49	97.8	14.4
	Graphite Rougher Tails	78.7	0.17	2.39	2.2	85.6
Rougher Only	Sulphide Rougher Tails	70.3	0.07	0.14	0.8	4.6
	MagSep Tails	67.7	0.06	0.03	0.7	0.9
Magsep Tails	Head ( calc. )	100.0	6.19	2.20	100.0	100.0
$P_{80} = 161 \text{ microns}$	Head (direct)		5.84			

## Table 13-3 – Summary of Rougher Flotation Tests

The three (3) approaches allow to get similar recovery to the combined flash and rougher concentrates. The desulphurization tests reveal that sulphide flotation removes most of the sulphide from the tailings and negligible removal was accomplished by magnetic separation following sulphide flotation. Hence, flotation alone is appropriate to remove the sulphide.

Following the rougher testing, a series of batch cleaner tests was conducted to determine the best cleaning approach. The testing included the exploration of different polishing approaches and the separation of an intermediate cleaner concentrate in two (2) size classes that were polished in a stir media mill separately. The objective of the cleaner circuit development was to maximize graphite recovery while optimizing the final product size distribution. There is an economic reason for this approach since coarser graphite flake has a higher market value. The detailed results of all the cleaning flotation tests are not presented in this report since most of them were done as exploration to find the best flowsheet and conditions. Batch cleaner tests understate graphite recovery since intermediate streams are considered process tailings and are not circulated like in a commercial operation. The closed-circuit performance of a commercial plant is simulated in the lab in form of a lock cycle test ("LCT"), which is a series of batch cleaner tests with circulation of all intermediate streams of one cycle to the next. From the cleaning test results, the flowsheet presented in Figure 13-6 was found to produce the best metallurgical performance.



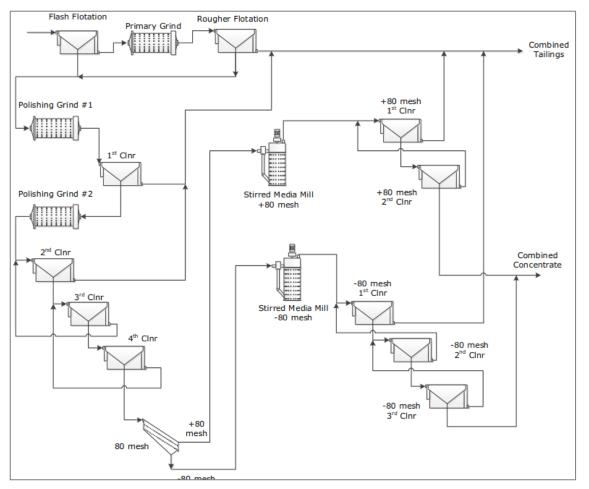


Figure 13-6 – Optimized Flowsheet

#### 13.2.4 Locked Cycle Flotation Test

The optimized flowsheet and conditions determined in the open circuit test was then used for the locked cycle test. In this test, the recirculation of the intermediate products is performed by adding these products to the following cycle. The test is performed until the mass balance from cycle to cycle is considered constant. The locked cycle test with the material from the Project was completed after six (6) cycles, which is within best practices. The results from this test are presented in Table 13-4.



Sample ID	Weight	Assays (%)	% Distr.
Sample ID	%	C(t)	C(t)
Combined Conc	6.01	98.6	94.7
+80 mesh 2nd Clnr Conc	2.07	98.2	32.5
+80 mesh 1st Clnr Tails	0.07	46.8	0.6
-80 mesh 3rd Clnr Conc	3.94	98.8	62.2
-80 mesh 1st Clnr Tails	0.24	7.22	0.3
2nd Clnr Tails	2.16	1.40	0.5
1st Clnr Tails	15.4	0.79	2.0
Scav Tails	76.2	0.17	2.1
Combined Tailings	94.1	0.36	4.9
Head (calc)	100	6.26	100.0

The combined concentrate of the last five (5) cycles was subjected to size fraction analysis and the carbon content of each class was obtained. Table 13-5 shows the weight distribution of the final combined graphite concentrate. This weight distribution allows to evaluate the market value of the produced concentrate.

Flake Category	Size Fraction	Weight %	Assays % C(t)	Distribution % C(t)
Extra Large	+32 mesh	0.4	98.3	0.4
or Jumbo	+48 mesh	5.6	98.7	5.5
Largo	+65 mesh	10.6	98.3	10.5
Large	+80 mesh	7.5	98.3	7.4
Medium	+100 mesh	9.5	98.8	9.4
Small	+150 mesh	17.0	99.4	17.1
Sman	+200 mesh	18.6	99.6	18.7
	+325 mesh	18.2	99.5	18.2
Fine/Amorpho us	+400 mesh	6.0	99.3	6.0
us	-400 mesh	6.7	98.7	6.6
	Final Concentrate (SA)	100.0	99.1	100.0

## 13.2.5 Variability testing

Following the locked cycle testing, a series of variability testing were conducted on the different flotation composites. The aim of this testing was to apply, in open circuit testing, the flowsheet and conditions that were employed in the locked cycle test and to evaluate the variability of the metallurgical performance. It is recommended to apply a recovery model based on known variables for the block model of the mine plan or confirm that the metallurgical performances are stable throughout the mine plan. The result of the variability is presented on Table 13-6.



Composite	Composite ID	Head Grade % C(g)	Concentrate Grade % C(t)	Recovery % C(g)
	MP_FLOT_EV2	9.37	98.1	92.6
Mine Plan	MP_FLOT_EV3	6.84	98.3	92.0
Composite	MP_FLOT_EV4	6.52	99.3	91.6
	MP_FLOT_EV5	5.02	99.5	90.8
	DOM_FLOT_EV2	5.30	97.9	89.2
Demois	DOM_FLOT_EV3	9.86	97.9	91.2
Domain Composite	DOM_FLOT_BAT2	4.13	97.2	86.5
composite	DOM_FLOT_EV3	9.91	97.7	90.3
	DOM_FLOT_BAT2	4.10	97.6	86.6
	GRAD_FLOT_EV1	2.79	95.2	84.5
	GRAD_FLOT_EV2	1.39	97.9	81.0
Grade	GRAD_FLOT_EV3	4.29	96.9	85.6
Composite	GRAD_FLOT_EV4	5.04	98.5	78.0
	GRAD_FLOT_BAT1	5.17	96.4	84.6
	GRAD_FLOT_BAT1	5.30	97.9	83.5
		Average	97.8	86.8
		Min	95.2	78.0
		Max	99.5	92.6
		StdDev	1.06	4.44
		Rel. StdDev	1.08	5.11

Table 13-6 – V	ariability Flotation	Nesults
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The metallurgical variability between the four (4) mine plan composites is very low and consistent results were obtained. For the domain composite, two (2) of them (DOM\_FLOT\_EV3 and DOM\_FLOT\_BAT2) were used for repeatability testing and the results confirm good repeatability. The grade composites were used to assess if the grade of the feed has any impact on the performance of the flotation. While variation occurred between the different composites, there is no correlation between the recovery and the feed grade. The concentrate size distribution has also been evaluated and no correlation between feed grade or recovery could be identified. The detailed results of size distribution are not presented in this report since they will not be used for the mine plan concentrate valuation. The concentrate grade is quite constant from one test to another. The recoveries of the Grade Composite sample, as well as the Domain Composite of the Battery deposit, are lower then for the Mine Plan Composites. This is likely because the test parameters are not optimized for these composites. The average recovery of all tests is lower than the locked cycle testing, but this is normal because there is no recirculation of intermediate products. It could then be concluded that applying



the metallurgical performance of the master composite throughout the mine plan feed is the best approach for this case.

## 13.2.6 Bulk Sample Flotation

With the main goal of producing graphite concentrate for downstream testing, 160 kg of the master and variability composites were subjected to a bulk flotation testing. Since the graphite concentrate was used for micronization and spherodization trials, flake preservation was not considered critical and a simplified flowsheet without classification of an intermediate concentrate was employed. Also, one additional stirred media stage followed by cleaner flotation was required since the larger pilot scale stirred media mill was not calibrated for the La Loutre mineralization. The results of the primary and secondary cleaner operation of the bulk flotation are presented in Table 13-7 and Table 13-8, respectively.

Product	Mass (g)	Grade % C(t)	Distribution % C(t)
4th Clnr Conc	9,551	93.5	94.0
2nd Clnr Tails	2,636	1.69	0.5
1st Clnr Tails	26,954	1.15	3.2
Scavenger Tails	119,622	0.18	2.3
	158,764	5.99	100

#### Table 13-7 – Bulk Sample Flotation First Step

#### Table 13-8 – Bulk Sample Flotation Second Step

Product	Mass (g)	Grade % C(t)	Dis % C(t)
Sec 6th Clnr Conc	9,351	96.9	99.7
Sec 6th Clnr Tails	7.7	37.5	0.03
Sec 5th Clnr Tails	14.3	19.6	0.03
Sec 4th Clnr Tails	56.7	12.5	0.08
Sec 3rd Clnr Tails	17.3	21.8	0.04
Sec 2nd Clnr Tails	29.2	9.10	0.03
Sec 1st Clnr Tails	96.3	5.53	0.06
Feed (4th Clnr Conc)	9,572	94.9	100

The two steps of the testing were performed in series and the final recovery is the combination of all the results. Results show a total carbon recovery of 93.7% was obtained with a concentrate grade of 96.9 C(t). This is consistent with the results from the locked cycle test that obtained slightly better results. This difference is normal considering that the bulk sample flotation test duration does not allow to optimize the operation parameters. It means that a mill with the same flowsheet will likely be able to reach the locked cycle test performance within a period of optimization.



## 13.3 Conclusion

The results of the 2022 testwork program generated useful information about the material of the Project. It shows that the grinding energy requirements are on the lower side and grinding will be possible at a lower cost. The flotation testwork shows that a constant metallurgical performance could be applied throughout the mine plan pit shell. The results of the locked cycle test are consistent with all other testing and the performance of this test can be used for the graphite recovery and concentrate size distribution modelling.



## 14. MINERAL RESOURCE ESTIMATES

The mineral resource estimate for the La Loutre Project (the "2023 MRE") was prepared by Marina lund, P.Geo. (InnovExplo), Martin Perron, P.Eng. (InnovExplo), Simon Boudreau, P.Eng. (InnovExplo) and Pierre Roy, P.Eng. (Soutex) using all available information.

The study area covers two deposits known as EV and Battery.

The effective date of the 2023 MRE is May 11, 2023.

#### 14.1 Methodology

The resource area of the EV deposit has a NW-SE strike length of 1,200 m, a width of 350 m, and a vertical extent of 250 m below the surface. The resource area of the Battery deposit has an NNW-SSE strike length of 1,150 m, a width of 450 m, and a vertical extent of 250 m below the surface.

The 2023 MRE was prepared using Leapfrog Geo 2022.1 ("Leapfrog") and Leapfrog Edge 2022.1 ("Edge"). Leapfrog was used for the 3D geological modelling. Edge was used for the estimation, which consisted of 3D block modelling and the inverse distance square ("ID2") interpolation method. Statistical, capping and variography studies were completed using Snowden Supervisor v8.13 and Microsoft Excel software.

The main steps in the methodology were as follows:

- Review and validate the database;
- 3D modelling of mineralized zones, lithologies and faults;
- Drill hole intercepts and composite generation for each mineralized zone;
- Basic statistics;
- Geostatistical analysis, including variography;
- Block modelling and grade interpolation;
- Establish resource classification criteria and clipping areas to classify the mineral resources;
- Assess the "reasonable prospects for eventual economic extraction" and select the appropriate cut-off grades ("CoG");
- Generate a mineral resource statement.

#### 14.2 Drill Hole Database

All 190 holes in the diamond drill hole database were used to create the MRE database (Figure 14-1). The closure date is February 27, 2023.

The holes cover the strike length of the deposits at a regular drill spacing of 30 to 100 m. A total of 12,641 intervals were sampled (7,123 samples in mineralized domains), representing 17,343 m of drilled core (9,908 m in mineralized domains). The resource database includes graphite assays and lithological, alteration and structural descriptions.

In addition to the basic tables of raw data, the MRE database includes several tables containing the calculated drill hole composites and wireframe solid intersections required for the statistical analysis and resource block modelling.



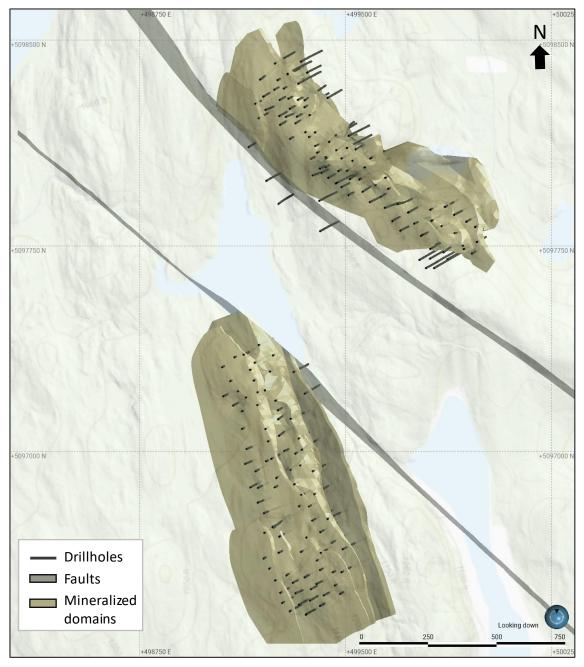


Figure 14-1 – Surface plan view of the mineralized domains model and the validated DDH used in the 2023 MRE

## 14.3 Geological Model

A geological model and a mineralized domains model were created in Leapfrog. All geological and mineralized domain solids were snapped to drill holes.

The stratigraphic sequence consists of a thick paragneiss unit intercalated with thin units of quartzite and marble. The mineralized domains are mainly located in the paragneiss and follow the stratigraphy. Bedding is oriented N160° at the Battery deposit and dips



20° to 45° to the south. At the EV deposit, bedding is oriented N130° and dips 20° to 35° to the south. Two NW-SE faults separate the two deposits.

Geological units are tightly and isoclinally folded by multi-decametric folds. At the Battery deposit, the folds are tightly closed, and the units appear sub-parallel and mainly straight. At the EV deposit, the folding is more complex as the defined part of the deposit is in the upper hinges of the folds.

The interpretation of the mineralized domains was based on graphite grades in drill holes and guided by the lithological interpretation. Ten (10) mineralized domains were created for grades above or equal to 1.5% Cg. The mineralized domains included five (5) high-grade domains defined for grades above or equal to 4.5% Cg. High-grade domains were only required for the Battery deposit.

Two surfaces were created to define the topography and the overburden/bedrock contact. These were generated from surveyed drill hole collars and an MNT topographic survey.

#### 14.4 High-grade Capping

Basic univariate statistics were performed on the raw assay datasets for the mineralized domains. The following criteria were used to decide if capping was warranted:

- The coefficient of variation of the assay population is above 2.0.
- The quantity of metal contained in the top 10% highest grade samples is above 40%, and/or the quantity of metal in the top 1% highest grade samples is higher than 10%.
- The probability plot of the grade distribution shows abnormal breaks or scattered points outside the main distribution curve.
- The log-normal distribution of grades shows erratic grade bins or distanced values from the main population.

The capping threshold decided for all domains is consistent with the combination of three criteria:

- A break in the probability plot.
- A coefficient of variation below 2.0 after capping.
- The metal total of the top 1% highest grade samples is below 10% after capping.

No capping was required. Table 14-1 presents a summary of the statistical analysis. Figure 14-2 shows an example of graphs supporting the capping threshold decisions.

Deposit	No. of samples	Max (%)	Uncut Mean (%)	Uncut COV	High-Grade Capping (%)
Battery	3,853	20.7	3.83	1.0	none
EV	3,259	27.5	5.98	0.95	none

Table 14-1– Summary of univariate statistics on raw assays



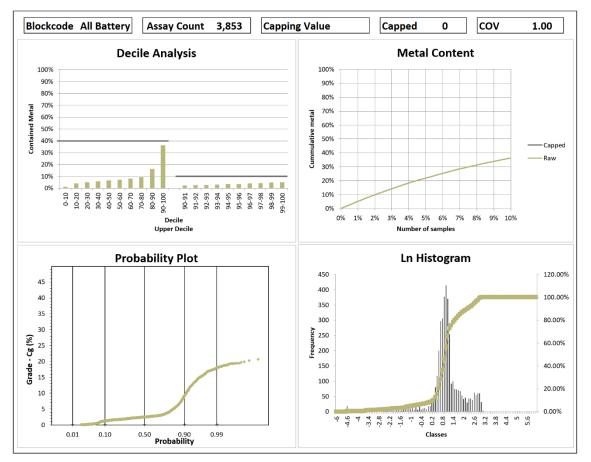


Figure 14-2 – Example of graphs supporting the no-capping decision for the Battery deposit

#### 14.5 Density

Densities are used to calculate tonnage from the estimated volumes in the resource grade block model.

Between 2014 and 2022, 66 drill core samples were submitted for specific bulk gravity ("SG") analysis. In 2023, 12 composite samples weighing 9 to 38.4 kg were analyzed for density as part of a metallurgical study on the Project.

The mean value of 2.82 g/cm<sup>3</sup> from the metallurgical study was used for the mineralized domain. For unmineralized lithologies, the mean results from the drill core samples were as follows: paragneiss =  $2.8 \text{ g/cm}^3$ ; quartzite =  $2.73 \text{ g/cm}^3$ ; pegmatite =  $2.63 \text{ g/cm}^3$ , marble =  $2.75 \text{ g/cm}^3$ .

An arbitrary value of 2.00 g/cm<sup>3</sup> was assigned to the overburden.

#### 14.6 Compositing

Assays were composited within each mineralized zone to minimize any bias introduced by variations in sample lengths. The thickness of the mineralized solids, the proposed block size and the original sample length were considered when selecting the composite length.



The intervals defining each mineralized domain were composited to 1.5-m equal lengths with any tail less than 0.75 m added to the previous interval. A grade of 0.00% was assigned to missing sample intervals. A total of 6,786 composites were generated.

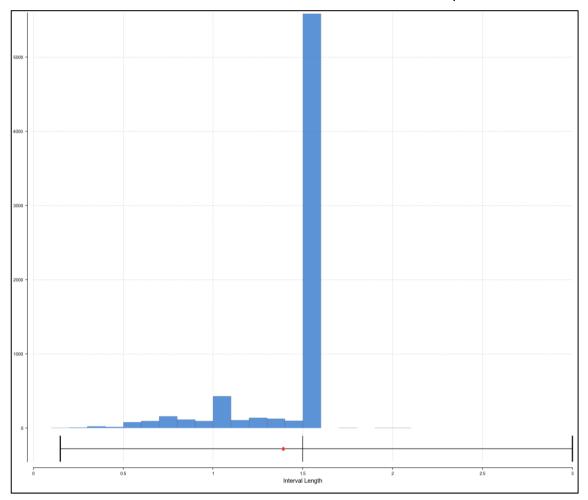


Table 14-2 summarizes the basic statistics for the raw data and composites.



Table 14-2 – Summary	v statistics	for the raw	data and	composites
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	Raw Assays				Composites			
Deposit	No. of Samples	Max Grade (%)	Mean Grade (%)	COV	No. of Comp.	Max Grade (%)	Mean Grade (%)	cov
Battery	3,889	20.7	3.79	1.0	3,479	20.7	3.77	0.97
EV	3,293	27.5	5.72	0.99	3,320	27.5	5.71	0.98

Raw assay statistics include data from unsampled intervals with an assigned grade of 0.00 g/t.



## 14.7 Block Model

A block model was established to enclose a sufficiently large volume to host open pits. The model corresponds to a sub-blocked model in Leapfrog without rotation.

The user block size was defined as  $5m \times 5m \times 5m$  with a minimal sub-block size of 2.5m x 2.5m x 2.5m. Block dimensions reflect the sizes of mineralized domains and plausible mining methods. All blocks with more than 50% of their volume falling within a selected solid were assigned the corresponding solid block code.

Table 14-3 presents the properties of the block model.

Properties	Y (rows)	X (columns)	Z (levels)
Min. coordinates	5095450	498850	450
Max. coordinates	5098850	501175	850
User block size	5	5	5
Min. block size	2.5	2.5	2.5
Rotation	0	0	0

## Table 14-3 – Block model properties

## 14.8 Variography and Search Ellipsoids

Three-dimensional directional variography was carried out in Snowden Supervisor on capped composites. Zones were studied individually or grouped when data showed similar behaviours.

Performed in connection with the geological knowledge of the deposit, the main steps in the variography process were:

- Examine the strike, dip and dip plane of the mineralized zones to define the direction and plunge of the best continuity in the mineralization.
- Estimate the nugget effect (C0) based on the downhole variogram.
- Model the major, semi-major and minor axes of continuity.

Search ellipsoid dimensions were based on the variography study. The interpolation strategy comprises three (3) cumulative passes. The first corresponds to 0.5x the variography ranges, the second 1x the ranges, and the third 2x the ranges.

Dynamic anisotropy was used to adjust the search ellipsoids to fit each domain's mean orientation (azimuth and dip) to reflect the variation in the orientation of the mineralized domains due to folding.

Table 14-4 summarizes the parameters of the ellipsoids used for interpolation.

Figure 14-4 illustrates the shape and range of the search ellipsoids for the first pass.



	Edge Coordinates		ates	Model	Variogram Components			
Deposit	Dip Az	Dip	Pitch	Туре	Nugget	Range X (m)	Range Y (m)	Range Z (m)
Battery	250	35	10	Spherical	0.05	250	85	45
EV	220	30	10	Spherical	0.05	140	50	30
+5098500 N		+498750 E			+499500 E			+500250 E N +5098500 N
+5097750 N								+5097750 N
+5097000 N								+5097000 N
	earch ellipso earch ellipso						Look	•

## Table 14-4 – Variogram model parameters

Figure 14-4 – Plan view of the search ellipsoids (pass 2)



## 14.9 Grade Interpolation

The variography study provided the parameters for interpolating the grade model using capped composites. A cumulative 3-pass search was used for the resource estimate. Pass 1 corresponds to half (0.5x) the variography ranges, Pass 2 is 1x the variography ranges for blocks not estimated during the first pass and Pass 3 is 2x the variography ranges for blocks not estimated during the second pass. The interpolation profiles were applied to each mineralized domain using hard boundaries.

Several models were produced using the nearest neighbour ("NN"), inverse distance square ("ID2") and ordinary kriging ("OK") interpolation methods to choose the method that best respects the raw assay and composite grade distribution. Models were compared visually (on sections, plans and longitudinal views), statistically, and with swath plots. The focus was to limit the smoothing effect to preserve local grade variations while avoiding smearing high-grade values. The ID2 method was selected for the final resource estimate.

The strategy and parameters for the grade estimation are summarized in Table 14-5.

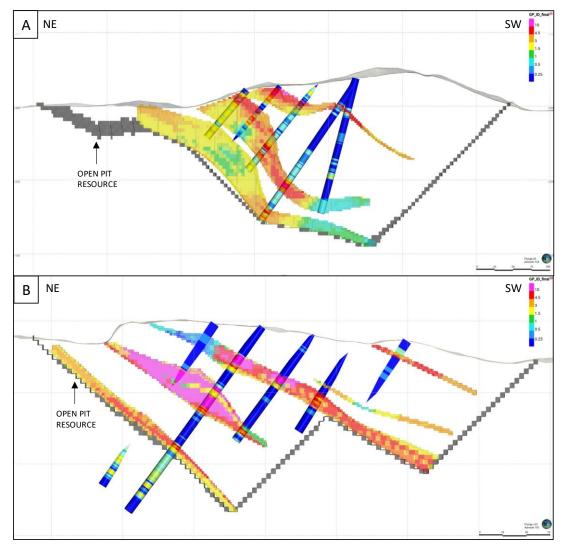
Deee	Number of composites					
Pass	Min	Max	Max per hole			
1	9	24	4			
2	6	24	4			
3	4	24	-			

#### Table 14-5 – Interpolation strategy

#### 14.10 Block Model Validation

Block model and composite grades were visually compared on sections, plans and longitudinal views for densely and sparsely drilled areas. No significant differences were observed, and a generally good match was noted in the grade distribution without excessive smoothing in the block model. The process confirmed that the block model honours the drill hole composite data (Figure 14-5).





A) Battery deposit, section view (±20 m); B) EV deposit, section view (±20 m). **Figure 14-5 – Graphite grade distribution** 



The OK and NN models were used to check for local bias in the models. The differences in the high-grade composite areas are within acceptable limits. The trend and local variation of the estimated ID2 and OK models were compared to the NN models and the composite data using swath plots in three directions (North, East and Elevation). The ID2, NN and OK models show similar grade trends, with the expected smoothing for each method compared to the composite data.

Table 14-6 compares the global block model mean for three (3) interpolation scenarios (OK, ID2 and NN) and the composite grades. Generally, the comparison between composite and block grade distribution did not identify any significant issues.

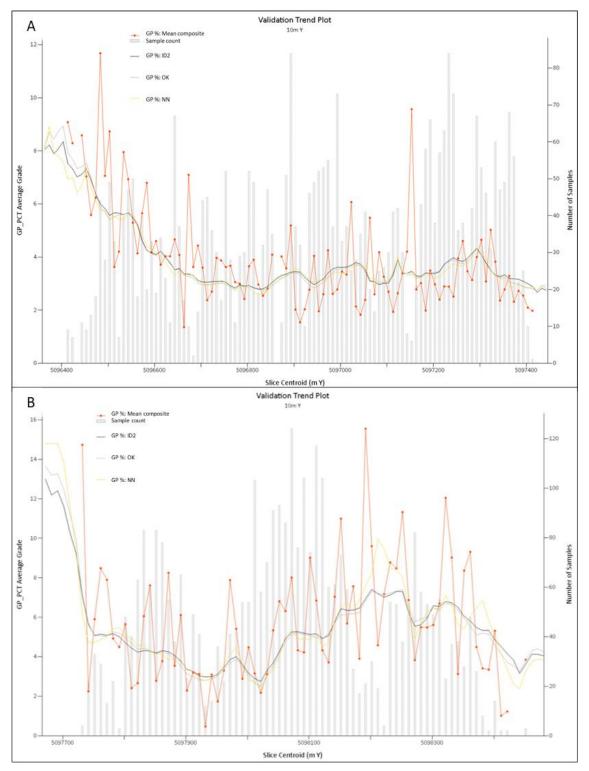
Figure 14-6 shows an example of the swath plot that compares the block model grades to the composite grades. The model generally reflects the composite trends, with the expected smoothing effect.

Deposit	Property	Composite	ID2 Model	OK Model	NN Model
Number		3,479	264,605	264,605	264,605
Battery	Mean (%)	3.77	3.82	3.77	3.73
	COV	0.97	0.82	0.83	0.98
Number		3,372	222,078	222,078	222,078
EV	Mean (%)	5.62	4.9	4.84	4.93
	COV	1.00	0.73	0.73	1.07

#### Table 14-6 – Comparison of block model and composite mean grades

Note: Blocks are classified as Indicated only.





A) Battery deposit; Sections looking North B) EV deposit; Sections looking North. **Figure 14-6 – Swath plots comparing the different interpolation methods to the DDH composites** 



#### 14.11 Mineral Resource Classification

By default, all interpolated blocks were assigned to "exploration potential" when creating the grade block model. Subsequent reclassification to the indicated or inferred category was based on the following criteria:

Inferred category criteria:

- Blocks showing geological and grade continuity;
- Blocks interpolated by a minimum of two (2) holes; and
- Blocks in areas where drill spacing is no more than 100 m.

Indicated category criteria:

- Blocks showing geological and grade continuity;
- Blocks interpolated by a minimum of three (3) holes; and
- Blocks in areas where drill spacing is no more than 55 m.

No measured resources were defined.

The resource category was assigned using clipping boundaries. In some cases, isolated blocks were upgraded or downgraded to homogenize the model with respect to the geological and grade continuity.

#### 14.12 Cut-off Grade for Mineral Resources

Mineral resources were compiled using a minimum CoG. Specific extraction methods are used only to establish a reasonable CoG for various parts of the deposit.

Under CIM Definition Standards, mineral resources should have "reasonable prospects of eventual economic extraction". A Whittle pit shell was used to constrain the nearsurface potential of the mineral resource estimate for each deposit. Resource-level optimized pit shells and the corresponding open-pit cut-off grade were used for the open pit resource statement. Figure 14-7 shows the optimized pit shells of the classified mineral resources to visualize the relationships between the two.

The CoG should be re-evaluated in light of future market conditions and other factors, such as graphite price, exchange rate, mining method, related costs, etc.

Detailed parameters used for calculating the CoG are described in Table 14-7. Detailed parameters used for calculating the selling price of the graphite (concentrate 100%) are described in Table 14-8.



Parameter	Unit	Value
Selling price (concentrate 95%)	US\$/t	1,043
Exchange rate	USD:CAD	1.32
Royalty	%	1.5
Process cost	\$/t processed	13.04
Rehandling cost	\$/t processed	0.00
Product transportation cost	\$/t conc	41.16
Tailings cost	\$/t processed	0.00
Process recovery	%	94.7
General & Administration	\$/t processed	7.00
Mining cost (Ore)	\$/t mined	3.70
Mining cost (Waste)	\$/t mined	3.70
Mining cost (OB)	\$/t mined	2.90
Cut-off grade	%	1.50

Table 14-7 – Input parameters used for the open pit cut-off grade estimation

# Table 14-8 – Input parameters used for the estimation of the graphite selling price (concentrate 100%)

Flake type	Flake size	Flake size fraction <sup>1</sup>	Selling price <sup>2</sup> (US\$)	Weighted selling price <sup>2</sup> (US\$/t)
Jumbo	+50 mesh	6.0%	2,570.00	154.20
Coarse	-50 to +80 mesh	18.0%	1,314.00	236.52
Intermediate	-80 to +150 mesh	26.5%	1,046.00	277.19
Fine	-150 mesh	49.5%	869.00	430.16
	Total	100.0%		1,098.07

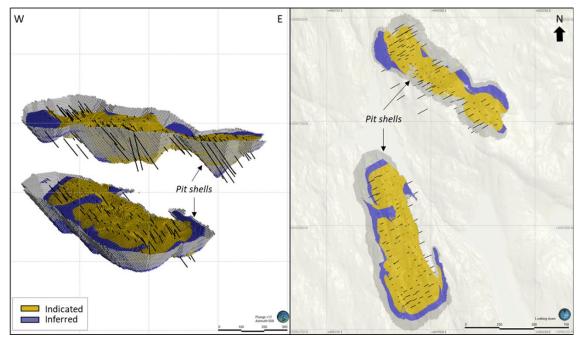
1. Evaluation from the 2022 metallurgical study (Lomiko, 2022)

2. Prices for the 4<sup>th</sup> quarter of 2022

#### 14.13 Mineral Resource Estimate

The QPs believe the current mineral resource estimate can be classified as Indicated and Inferred mineral resources based on geological and grade continuity, data density, search ellipse criteria, drill hole spacing and interpolation parameters. The authors also believe that the requirement of "reasonable prospects for eventual economic extraction" has been met by having a cut-off grade based on reasonable inputs amenable to a potential open-pit extraction scenario.





# Figure 14-7 – Isometric (left) and plan view (right) showing the pit shells and the classified mineral resources above the cut-off grade constrained in the pit shells

The 2023 MRE is considered reliable and based on quality data and geological knowledge. The estimate follows CIM Definition Standards.

Table 14-9 displays the results of the 2023 MRE for the Project at a cut-off grade of 1.5% Cg.

Deposit	Cut-off (%)	Indicated mineral resource			Inferred mineral resource		
		Tonnage (kt)	Graphite (%)	Graphite (kt)	Tonnage (kt)	Graphite (%)	Graphite (kt)
EV	1.5	24,267	5.80	1,407	3,067	4.29	132
Battery	1.5	40,429	3.86	1,562	14,384	3.60	518
TOTAL	1.5	64,696	4.59	2,969	17,452	3.72	650

#### Table 14-9 – 2023 La Loutre Project Mineral Resource Estimate for an open pit scenario

Notes to accompany the Mineral Resource Estimate:

1. The independent and qualified persons for the mineral resource estimate, as defined by NI 43-101, are Marina lund, P.Geo. (InnovExplo Inc.), Martin Perron, P.Eng. (InnovExplo Inc.)., Simon Boudreau, P.Eng. (InnovExplo Inc.) and Pierre Roy, P.Eng. (Soutex Inc.). The effective date of the estimate is May 11, 2023.

2. These mineral resources are not mineral reserves as they do not have demonstrated economic viability. The mineral resource estimate follows current CIM Definitions (2014) and CIM MRMR Best Practice Guidelines (2019).

3. The results are presented undiluted and are considered to have reasonable prospects of economic viability.

4. The estimate encompasses two mineralized deposits (EV and Battery) using the grade of the adjacent material when assayed or a value of zero when not assayed.

5. No capping was applied on 1.5-m composites.

6. The estimate was completed using a sub-block model in Leapfrog Edge 2022 with a user block size of 5m x 5m x 5m and a minimum block size of 2.5m x 2.5m x 2.5m. Grades interpolation was obtained by ID2 using hard boundaries.

7. Bulk density values were applied by lithology (g/cm<sup>3</sup>): mineralized domain = 2.82; paragneiss = 2.8; quartzite = 2.73; pegmatite = 2.63; marble = 2.75; and overburden ("OB") = 2.0.

8. The mineral resource estimate is classified as indicated and inferred. The Indicated mineral resource category is defined with a minimum of three (3) drill holes in areas where the drill spacing is less than 55 m and reasonable geological and grade continuity have been demonstrated. The Inferred category is defined with a minimum of two (2) drill holes in areas where the drill spacing is less than 100 m and reasonable geological and grade continuity has been demonstrated. Clipping boundaries were used for classification based on those criteria.

9. The mineral resource estimate is pit-constrained with a bedrock slope angle of  $50^{\circ}$  and an overburden slope angle of  $30^{\circ}$ . It is reported at a graphite cut-off grade of 1.5%. The cut-off grade was calculated using the following parameters: processing cost = C\$13.04; product transporting cost = C\$41.16; mining cost (rock) = C\$3.70; mining cost (OB) = C\$2.90; graphite price = US\$1,098/tonne of graphite; USD:CAD exchange rate = 1.32; graphite recovery to concentrate product = 94.7%. The cut-off grade should be re-evaluated in light of future prevailing market conditions (metal prices, exchange rates, mining costs etc.).

10. The number of metric tons was rounded to the nearest thousand, following the recommendations in NI 43-101, and any discrepancies in the totals are due to rounding effects.

11. The authors are not aware of any known environmental, permitting, legal, title-related, taxation, socio-political or marketing issues or any other relevant issue not reported in the Technical Report that could materially affect the Mineral Resource Estimate.



The results of the 2023 MRE represent a 184% increase in tonnage in the Indicated mineral resources category compared to the 2021 MRE (Raponi et al., 2021). The additional 13,108 m of infill drilling in 79 holes completed in 2022, combined with the refinement of the deposit and structural models, contributed to the bulk of the resources converted from the Inferred to the Indicated category.

Table 14-10 presents the sensitivity of the 2023 MRE at different cut-off grades for each deposit. The reader should be cautioned that the figures provided in this table should not be interpreted as a mineral resource statement. The reported quantities and grade estimates are presented at different cut-off grades solely to demonstrate the resource model's sensitivity to the reporting cut-off grade.

	Cut off	Indicated m	nineral reso	ource	Inferred mineral resource		
Deposit	Cut-off (%)	Tonnage (kt)	Graphite (%)	Graphite (kt)	Tonnage (kt)	Graphite (%)	Graphite (kt)
Battery	1.7	39,215	3.92	1,539	13,586	3.68	499
	1.6	39,905	3.89	1,552	14,073	3.63	511
	1.5	40,429	3.86	1,562	14,384	3.60	518
	1.45	40,723	3.85	1,568	14,623	3.59	524
	1.4	40,952	3.84	1,572	14,908	3.56	531
EV	1.7	23,336	5.93	1,384	2,843	4.39	125
	1.6	23,868	5.86	1,398	2,960	4.35	129
	1.5	24,267	5.80	1,407	3,067	4.29	132
	1.45	24,749	5.74	1,420	3,189	4.25	135
	1.4	25,664	5.64	1,449	3,296	4.21	139

#### Table 14-10 – Cut-off grade sensitivity for the La Loutre Project



#### 15. MINERAL RESERVE ESTIMATES

Not applicable at the current stage of the Project.

#### 16. MINING METHODS

Not applicable at the current stage of the Project.

### 17. RECOVERY METHODS

Not applicable at the current stage of the Project.

#### 18. PROJECT INFRASTRUCTURE

Not applicable at the current stage of the Project.

#### **19. MARKET STUDIES AND CONTRACTS**

Not applicable at the current stage of the Project.

## 20. ENVIRONMENTAL STUDIES, PERMITTING, AND SOCIAL OR COMMUNITY IMPACT

Not applicable at the current stage of the Project.

### 21. CAPITAL AND OPERATING COSTS

Not applicable at the current stage of the Project.

#### 22. ECONOMIC ANALYSIS

Not applicable at the current stage of the Project.



## 23. ADJACENT PROPERTIES

There are four (4) independent claim holders holding small claim blocks adjacent to the La Loutre Property (Figure 23-1). The first comprises two (2) mining titles held by Steven Lauzier (100%). This property is near the historical La Loutre A showing discussed in Item 6 of this report. The second property is held by René Roberge (100%) and comprises four (4) mining titles. This property lies southeast of the La Loutre Property. To the south of the property are two (2) mining titles held by Cedric Brazeau and Paul Lynes. No reported exploration results have been documented.

In March 2023, Lomiko announced that it has entered into an agreement (the "Acquisition Agreement") with SOQUEM and a private owner to acquire 100% of 17 mining titles (678 ha) north of the La Loutre Property referred as the Carmin property. The Carmin property consists of three (3) previously identified graphite mineralization occurrences identified as site A, B and C. The Carmin property has been worked on since the late 1980s and early 1990s when a pre-feasibility study was published. This historic pre-feasibility study wasn't completed in compliance with current CIM guidelines and NI-43-101 reporting requirements. All work performed on the Carmin property are considered to be historic.

The descriptions in this section are drawn from information publicly disclosed by the owners of the adjacent properties.

The information about mineralization on adjacent properties is not necessarily indicative of mineralization on the issuer's Property. The author has not verified the mineral resource estimates or published geological information pertaining to the adjacent properties.



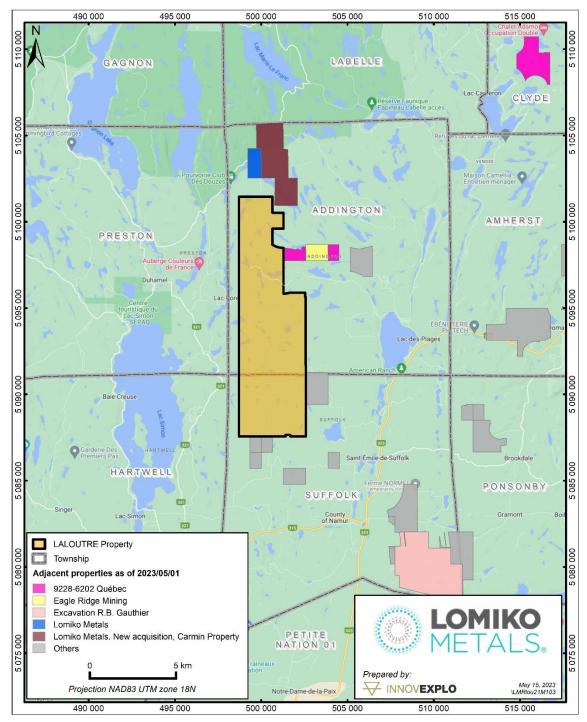


Figure 23-1 – Adjacent Properties



## 24. OTHER RELEVANT DATA AND INFORMATION

There is no other relevant data or information to report for the Project at this time.



## 25. INTERPRETATION AND CONCLUSIONS

InnovExplo's mandate aimed to update the mineral resource estimates for the La Loutre Property (the "2023 MRE"). The mandate covers the Battery and the EV deposits. This Technical Report and the 2023 MRE presented herein meet this objective.

The authors conclude the following:

- The database supporting the 2023 MRE is complete, valid and up to date.
- Geological and graphite grade continuity has been demonstrated for ten (10) mineralized domains, supported by a 30-m to 100-m drilling grid.
- The key parameters of the 2023 MRE (density, capping, compositing, interpolation, search ellipsoid, etc.) are supported by data and statistical and/or geostatistical analysis.
- The 2023 MRE is classified as indicated and inferred resources.
- The 2023 MRE was prepared for a potential open-pit scenario at a cut-off grade of 1.5% Cg. The cut-off grade was calculated at a price of US\$1,043 per tonne of graphite concentrate (95% pure Cg), an exchange rate of 1.32 USD/CAD, and reasonable mining, processing and G&A costs.
- In an open-pit mining scenario, the Property contains an estimated indicated mineral resource of 64,696,000 t at 4.59% Cg for 2,969,000 t of graphite and an inferred mineral resource of 17,452,000 t at 3.72% Cg for 650,000 t of graphite.
- The results of the 2023 MRE represent a 184% increase in tonnage in the Indicated mineral resources category compared to the previous 2021 MRE (Raponi et al., 2021). The additional 13,108 m of infill drilling in 79 holes completed in 2022, combined with the refinement of the deposit and structural models, contributed to the addition of most of the Inferred Mineral Resources to the Indicated Mineral Resource category relative to the 2021 MRE.
- Based on the 2023 metallurgical test program, the La Loutre deposits appear amenable to standard graphite recovery processes. A combination of comminution and flotation processes has demonstrated that graphite recovery in the range of 94-95% is possible.
- Additional diamond drilling on multiple zones could potentially upgrade some of the inferred mineral resources to the Indicated category and add to the inferred mineral resource since most mineralized zones have not been fully explored along strike or to depth.

The authors consider the 2023 MRE to be reliable, thorough, and based on quality data, reasonable hypotheses, and parameters and follows NI 43-101 requirements and CIM Definition Standards.

Table 25-1 identifies important internal risks, potential impacts and possible risk mitigation measures that could affect the economic outcome of the Project. It does not cover the external risks that apply to all mining projects (e.g., changes in metal prices, exchange rates, availability of investment capital, change in government regulations, etc.). Significant opportunities that could improve the economics, timing and permitting of the Project are also identified in this table. Further information and evaluation are required before these opportunities can be included in the project economics.



RISK	POTENTIAL IMPACT	POSSIBLE RISK MITIGATION
Metallurgical recovery below expectations	Metallurgical tests are preliminary; recovery could be worse than currently assumed.	Perform additional metallurgical testwork.
Location of the Project near municipalities, potentially poor social acceptability	Social acceptability is an inherent risk for all mining projects. It can affect permitting and the Project's development schedule.	Continue the pro-active and transparent strategy to identify all stakeholders and maintain the communication plan with host communities and First Nations.
Environmental impact	Part of the La Loutre Property overlaps a wildlife habitat (Virginia deer yard) and wetlands.	Perform additional environmental studies and establish alternatives early on that could reduce impacts.
OPPORTUNITIES	EXPLANATION	POTENTIAL BENEFIT
Delineation drilling	Lateral and depth extensions are still open.	Likelihood of increasing the geological and grade continuities.
Exploration potential	The Property contains untested geophysical targets and under- explored targets.	Potential to discover a satellite deposit.
Metallurgical recovery optimization	Metallurgical tests are preliminary; additional metallurgical test work could improve the recovery rate.	Recovery may improve compared to current assumptions.

Table 25-1 – Risks and opportunities for the La Loutre Project



#### 26. **RECOMMENDATIONS**

Based on the results of the 2023 MRE, the authors recommend that the Project move to an advanced phase of exploration, which would include the preparation of a Prefeasibility Study ("PFS").

The authors recommend the following work program:

- Use the MRE to build the elements necessary for a PFS, including:
  - A preliminary mining plan;
  - A mining geotechnical study;
  - A power and access road study;
  - A geotechnical study of the planned infrastructure sites;
  - A study on a waste disposal facility; and
  - Environmental, hydrogeological and geochemical studies.
- Conducting exploration work to assess a possible link between both deposits and potentially increase the size of the mineralization. Those exploration works are not required for a PFS and could be performed independently from the PFS.

Table 26-1 presents the estimated cost for the recommended work program.

## Table 26-1 – Estimated costs for the recommended work program on the La Loutre Property

	Work Program	Budget Cost
A	Conduct 2,000 m of exploration drilling between the two deposits at \$175/m	\$350,000
В	PFS-level mining plan	\$300,000
С	Mining geotechnical study	\$900,000
D	Power and access road study	\$200,000
E	Geotechnical study on planned infrastructure sites and a waste disposal facility	\$700,000
F	Environmental, hydrogeological and geochemical study	\$1,300,000
G	Prefeasibility study budget	\$1,400,000
	SUB-TOTAL	\$5,150,000
	Contingencies 15%	\$772,500
	TOTAL	\$5,922,500

The authors believe that the recommended work program and proposed expenditures are appropriate and well thought out and that the character of the Project is of enough merit to warrant the recommended programs and activities. The authors believe the proposed budget reasonably reflects the type and number of contemplated activities.



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