# NI 43-101 Technical Report, Mineral Resource Estimation Effective Date May 15, 2024

Zeus Lithium Project, Clayton Valley, Nevada, USA

Noram Lithium Corporation

SRK Consulting (U.S.), Inc. ▪ USPR001739 ▪ July 10, 2024

srk consulting

# NI 43-101 Technical Report,
# Mineral Resource Estimation
# Effective Date May 15, 2024

Zeus Lithium Project, Clayton Valley, Nevada, USA

**Prepared for:**
Noram Lithium Corp.
555 West Hastings Street
Suite 2150
Vancouver, BC V6B 4N6
United States

NORAM LITHIUM CORP.

**Prepared by:**
SRK Consulting (U.S.), Inc.
2024
999 17th Street, Suite 400
Denver, CO 80202
United States

+1 303 985 1333
www.srk.com

**Signed by Qualified Persons:** Sam Siebenaler, SME-RM **Initials:** SS
Rob Bowell, C.Chem, C.Geol, P.Geo (NL) **Initials:** RB
Bart Stryhas, AIPG-CPG **Initials:** BAS

**Reviewer:** Justin Smith, P.E., SME-RM **Initials:** JLS

**File Name:**
ZeusLithium_NI43-101_TR_USPR001932_Rev02.docx

**Suggested Citation:**
SRK Consulting (U.S.), Inc. ▪ USPR001739 ▪ July 10, 2024
2024. NI 43-101 Technical Report,
Mineral Resource Estimation
Effective Date May 15, 2024. Project number: USPR001739 . Issued , 2024.





srk consulting

# Contents

## Tables



## Figures

## Appendices

# 1 Summary

This report was prepared as a Mineral Resource Estimation-level Canadian National Instrument 43-101 (NI 43-101) Technical Report (Technical Report) for Noram Lithium Corporation (Noram) by SRK Consulting (U.S.), Inc. (SRK) on the Zeus Lithium Project (Zeus or the project).

## 1.1 Property Description and Ownership

The Zeus Lithium Project consists of 146 placer claims, over staked by 136 lode claims located in the Clayton Valley in Esmeralda County, Nevada. The project is 220 miles southeast of Reno, NV and is accessed from Tonopah, NV, which is located 27 miles northeast. The project is owned by Noram Lithium Corporation. Noram is a publicly traded Canadian corporation with corporate offices in Vancouver, BC, Canada. The company is listed on the TSX Venture Exchange (TSX-V:NRM), Frankfurt Exchange (N7R), and in the United States (OTCQB:NRVTF).

## 1.2 Geology and Mineralization

The geology of the Clayton Valley area is underlain by basement rocks composed of a thick sequence of Neoproterozoic to Ordovician carbonate and clastic sediments that were deposited along the ancient western passive margin of North America (Albers and Stewart, 1965 & 1972). During the Late Jurassic Period, a series of granitoid magmas intruded the basement sedimentary rocks. In the Tertiary, (Oligocene and Miocene) basin and range faulting was accompanied by volcanic eruptions of intermediate to felsic lavas occurred throughout the region. Thin to thick veneers of Quaternary gravels and alluvium cover much of the landscape today and playa lake deposits occur on the lowest elevation areas of the basins.

The project area hosting the lithium mineralization is composed of Miocene pyroclasic rocks overlain by the Esmeralda Formation, a clay-rich, fresh water (alkaline) lake sediment deposit. The pyroclastic rocks are postulated to be the source of the lithium, and the clay rich units of the Esmeralda Formation currently host the concentrations of potentially minable lithium.

## 1.3 Status of Exploration, Development, and Operations

The project area has been tested by a total of 92 diamond core type drillholes. The drilling campaigns have evolved from early, shallow BQ diameter drilling completed with a backpack apparatus to truck mounted NQ and HQ diameter holes penetrating up to 90+ meters. Samples were typically ½ or ¼ core splits sent to reputable, commercial laboratories accompanied by Qa/Qc monitor samples.

There are four previous, publicly reported Mineral Resource estimation completed in 2017, 2019, 2021 and 2022.

## 1.4 Mineral Processing and Metallurgical Testing

The metallurgical test program conducted on the Zeus Lithium deposit was to develop a viable process flowsheet to produce lithium carbonate. Information generated during the test program was used to define the process variables.

Metallurgical testing began in 2018 at Actlabs Ltd., Ancaster, Ontario (Actlabs) and AuTec Innovative Extractive Solutions Ltd., Vancouver, British Columbia (AuTec). The PEA report includes metallurgical test work conducted by SGS Canada Inc., Lakefield, Ontario (SGS) in collaboration with ABH Engineering, Surrey, British Columbia (ABH).

Mineralogical work of deep core material shows the dominance of feldspars (51%) and micas (25%) with minor clays. In near surface material the mineralogy consisted of ~50% clay minerals. The major clay minerals included smectite, illite/muscovite, chlorite and a significant amount of amorphous matter believed to be poorly crystalline smectite and illite. The non-clay fraction included calcite, quartz, orthoclase/sanidine, and chlorite.

Testwork was done by SGS in 2021 on drill core samples to determine if a size-based pre-treatment would have potential to remove a low lithium, calcium (limestone) rich coarse fraction which would remove acid consumers prior to leaching. The tests confirmed the possibility of removing a coarse calcium rich fraction, after repulping in recycled acid so as to reduce overall acid consumption in the process.

Overall, the leaching tests indicated that Lithium can be leached from the ore using either sulfuric or hydrochloric acid. The samples are very fine grained, with 84.5% passing – 9µm and recovery was reported above 90%. Higher temperature and higher free acidity enhance Li extraction. The main impurities identified are Fe, Al, Mg, K and Na. Ca is insoluble with HCl extraction. Impurities appear to occur at higher concentrations in the coarse fraction and Li in the finer fraction so size separation may assist in reducing impurities in the leached material.

In the elution and collection of Li product, the nonionic, medium to high molecular weight nonionic polyacrylamide flocculant SNF-920-SH was determined to be suitable for both the leach discharge and neutralization discharge applications assuming the slurry is heavily diluted to 3-5% solids to maximize settling characteristics. It was concluded that the material would thicken to 22% solids by weight, which is below the solid concentration used for the leach testwork. This suggests that once diluted, thickening may be problematic. The CCD simulation showed similar underflow solids concentrations can be achieved as the pH increases through washing. Filtration can produce a cake with about 40% moisture using air blow and squeeze and filtration cycle times below 20 minutes can be achieved without washing.

Paterson & Cooke completed work on the thickening of the solid residue to dispose of it and found that dynamic thickening after 24 hours of compaction can generate 35% solids by weight, indicating that the tailings are amenable to high-density or paste thickening. The leach residue is highly thixotropic, even as received leach product filter cake, which was dry and crumbled to the touch, could be sheared so the sample behaved as a fluid. This property would make conveying filter cake over any distance problematic. Filtration with a high form pressure seems to be best at generating a low moisture cake. A membrane squeeze after filtration can reduce moisture content but a final air blow shows limited benefit. Due to the fine nature of the material cake, washing was slow.

From a bulk leach solution, a lithium carbonate product has been produced. A six-step process was evaluated for upgrading, solution purification and carbonate precipitation.

- Bulk evaporation,
- Magnesium sulfate crystallization,
- Magnesium polishing precipitation using lime,
- Calcium removal using sodium carbonate,
- Solution polishing with ion exchange and
- Lithium carbonate precipitation with sodium carbonate.

Based on the impurity assays, the product was estimated to be about 99.2% lithium carbonate and would require further processing to remove sodium and potassium sulfate prior to achieving battery grade purity.

## 1.5 Mineral Resource Estimate

The Mineral Resource Estimation (MRE) for the Zeus deposit was completed by Big Rock Exploration. The MRE has been reviewed by Bart Stryhas of SRK Consulting (U.S.) who is a qualified person.

Reasonable prospects of eventual economic extraction of the MRE have been satisfied by applying appropriate, costs, recovery and pit slopes angle to construct a Mineral Resource conceptual pit shell. The results of the MRE study are shown in Table 1-1.

**Table 1-1: Zeus Project Mineral Resource Estimate at 525 ppm Lithium Cut-off-Grade**

| ZONE | Classification | Mass | Contained Li | | Contained LCE |
|---|---|---|---|---|---|
| | | dry | grade | mass | mass |
| | | (Mt) | (ppm) | (kt) | (kt) |
| Total | Measured | 0 | 0 | 0 | 0 |
| | Indicated | 586 | 957 | 561 | 2,987 |
| | **Measured and Indicated** | **586** | **957** | **561** | **2,987** |
| | Inferred | 300 | 861 | 258 | 1,375 |
| High Grade Core | Measured | 0 | 0 | 0 | 0 |
| | Indicated | 166 | 1,121 | 186 | 989 |
| | **Measured and Indicated** | **166** | **1,121** | **186** | **989** |
| | Inferred | 2 | 1,102 | 2 | 9 |
| Peripheral Halo | Measured | 0 | 0 | 0 | 0 |
| | Indicated | 421 | 893 | 375 | 1,998 |
| | **Measured and Indicated** | **421** | **893** | **375** | **1,998** |
| | Inferred | 299 | 859 | 257 | 1,366 |

The MRE is supported by all sampled drillholes. Raw samples were capped at 2,000 parts per million (ppm) lithium and composited to 3 meter (m) nominal lengths. The MRE was split into two zones of interest: the high-grade core zone and the peripheral halo zone. Four hard boundary grade domains constructed at 600, 1000, 1300 and 1450 ppm thresholds confine the MRE. An Ordinary Kriging algorithm is used for the grade estimation. The estimation was validated using visual checks, statistical comparisons, swath plot review and alternate modeling methods. Reasonable prospects of eventual economic extraction of the MRE have been satisfied by applying appropriate, costs, recovery and pit slopes angle to construct a Mineral Resource conceptual pit shell.

## 1.6 Conclusions and Recommendations

Noram has mineral ownership to 1,133 hectares of U.S. Government owned land administered by the Bureau of Land Management (BLM) which host a lithium Mineral Resource. Noram is required to pay annual assessment fees to maintain mineral title to these lands and is required to permit all activities which result in surface impact at the project. Noram has completed a total of 92 drillholes in seven phases of drilling between 2017 to 2024. The results of the drilling have defined a relatively continuous horizon of lithium mineralization hosted within clay minerals in the Esmeralda Formation. Density and moisture content studies have determined appropriate mass conversions for all lithologic units of importance. Preliminary metallurgical studies have shown that the lithium can be recovered from the clays with an acid leach and solid recovery method. Additional future drilling has the potential to convert the Inferred Mineral Resource to Indicated Mineral Resource as well and to expand the Mineral Resource to the east.

The current Mineral Resource estimate contains adequate information to support engineering studies, such as a Preliminary Economic Assessment or Preliminary Feasibility Study.

# 2 Introduction

## 2.1 Terms of Reference and Purpose of the Report

This report was prepared as a Mineral Resource-level Canadian National Instrument 43-101 (NI 43-101) Technical Report (Technical Report) for Noram Lithium Corporation (Noram) by SRK Consulting (U.S.), Inc. (SRK) on the Zeus Lithium Project (Zeus or the project).

The quality of information, conclusions, and estimates contained herein is consistent with the level of effort involved in SRK's services, based on: i) information available at the time of preparation, ii) data supplied by outside sources, and iii) the assumptions, conditions, and qualifications set forth in this report. This report is intended for use by Noram subject to the terms and conditions of its contract with SRK and relevant securities legislation. The contract permits Noram to file this report as a Technical Report with Canadian securities regulatory authorities pursuant to NI 43-101, Standards of Disclosure for Mineral Projects. Except for the purposes legislated under provincial securities law, any other uses of this report by any third party is at that party's sole risk. The responsibility for this disclosure remains with Noram. The user of this document should ensure that this is the most recent Technical Report for the property as it is not valid if a new Technical Report has been issued.

This report provides Mineral Resource, and a classification of resources prepared in accordance with the Canadian Institute of Mining, Metallurgy and Petroleum Standards on Mineral Resources and Reserves: Definitions and Guidelines, May 10, 2014 (CIM, 2014).

## 2.2 Qualifications of Consultants

The Consultants preparing this technical report are specialists in the fields of geology, exploration, Mineral Resource and Mineral Reserve estimation and classification, open pit mining, geotechnical, environmental, permitting, metallurgical testing, mineral processing, processing design, capital and operating cost estimation, and mineral economics.

None of the Consultants or any associates employed in the preparation of this report has any beneficial interest in Noram. The Consultants are not insiders, associates, or affiliates of Noram. The results of this Technical Report are not dependent upon any prior agreements concerning the conclusions to be reached, nor are there any undisclosed understandings concerning any future business dealings between Noram and the Consultants. The Consultants are being paid a fee for their work in accordance with normal professional consulting practice.

The following individuals, by virtue of their education, experience and professional association, are considered Qualified Persons (QP) as defined in the NI 43-101 standard, for this report, and are members in good standing of appropriate professional institutions. QP certificates of authors are provided in Appendix A. The QP's are responsible for specific sections as follows:

- Sam Siebenaler, Vice President of Corporate Development, Big Rock Industries is the QP responsible for Property, Geology and Exploration Sections 4 through 12, and portions of Sections 1, 25 and 26 summarized therefrom, of this Technical Report.

- Rob Bowell, Corporate Consultant, SRK is the QP responsible for Metallurgy Section 13, and portions of Sections 1, 25 and 26 summarized therefrom, of this Technical Report.
- Bart Stryhas, Associate Resource Geologist, SRK is the QP responsible for Introduction Section 2, Reliance on Other Experts Section 3, Mineral Resource Estimation Section 14, Market Studies Section 19, Environmental Studies Section 20, Adjacent Properties Section 23 Other Relevant Data Section 24 and portions of Sections 1, 25 and 26 summarized therefrom, of this Technical Report.

## 2.3 Details of Inspection

In late September to mid-October of 2023, Big Rock Exploration's (BRE) Dean Peterson accompanied by Ryan Livernois mapped the geology over 12 field days.

Bart Stryhas has visited the property on two occasions, a reconnaissance overview of the property was completed on June 6th, 2023, accompanied by representatives from Noram. A second site visit was completed on December 8th, 2023, to observe the active drilling program. This visit observed the drilling, core handling, core logging, sampling and chain of sample custody of the most recent exploration work.

**Table 2-1: Site Visit Participants**

| Personnel | Company | Expertise | Date(s) of Visit | Details of Inspection |
|---|---|---|---|---|
| Dean Peterson | BRE | Geology | Sept-Oct, 2023 | Geologic Mapping |
| Bart Stryhas | SRK | Mineral Resources | June 6, 2023 & Dec 8, 2023 | Geology overview and drilling procedures |

## 2.4 Sources of Information

This report is based in part on internal Company technical reports, previous technical studies, maps, published government reports, company letters and memoranda, and public information as cited throughout this report and listed in the References Section 27.

## 2.5 Effective Date

The effective date of this report is May 15, 2024.

## 2.6 Units of Measure

The metric system has been used throughout this report. Tonnes are metric of 1,000 kg, or 2,204.6 lb. All currency is in U.S. dollars (US$) unless otherwise stated.

# 3 Reliance on Other Experts

The Consultant's opinion contained herein is based on information provided to the Consultants by Noram throughout the course of the investigations. SRK has relied upon the work of other consultants in the project areas in support of this Technical Report.

Gavin Harrison of Harrison Land Services LLC, who is not a Qualified Person, supplied most of the information regarding the staking and locations of the placer and lode mining claims. Mr. Harrison has more than 15 years of experience staking and recording claims on BLM land in several states in the western U. S. The authors of the ABH Engineering Updated Resource Estimate (effective date December 1, 2022) for the Zeus Lithium Project (Damir Cukor and Brent Hilscher) verified the presence and location of a few of the claim stakes and location documents on the ground; the stakes are in place but have become weathered and faded. Harrison Land Services was also responsible for claim corner locations used in the claim location map in this report.

These items have not been independently reviewed by SRK and SRK did not seek an independent legal opinion of these items. The Consultants used their experience to determine if the information from previous reports was suitable for inclusion in this technical report and adjusted information that required amending. This report includes technical information, which required subsequent calculations to derive subtotals, totals and weighted averages. Such calculations inherently involve a degree of rounding and consequently introduce a margin of error. Where these occur, the Consultants do not consider them to be material.

# 4 Property Description and Location

## 4.1 Property Location

The Zeus Lithium Project is located within the Clayton Valley in Esmeralda County, Nevada. The claims lie within township 2 south, and range 40 east, at Mt Diablo Principal Meridian. These claims lie in portions of sections 1, 2, 10, 11, 12, 13, 14, 22, 23 and 24. The site is 220 miles southeast of Reno, NV. The property can either be accessed from Tonopah, which is located 27 miles northeast of the site, or Silver Peak, which is located 7 miles west (Figure 4-1).

**Figure 4-1: Location Map**


Sources: BRE 2024

## 4.2 Mineral Titles

The Project consists of a total of 146 unpatented placer claims and 136 unpatented lode claims, originally acquired in 2016. Both sets of claims cover approximately 2,800 acres (1,133 hectares) in size. The claims are staked on U.S. Government land administered by BLM. Each claim covers an area of 20 acres (8.1 hectares). Both lode and placer type claims were originally filed at the project because legal counsel were unclear which type would apply to extraction of lithium claystone deposits.

Table 4-1 lists the claim names and the corresponding BLM Nevada Mining Claim (NV) numbers, expiration date and area.

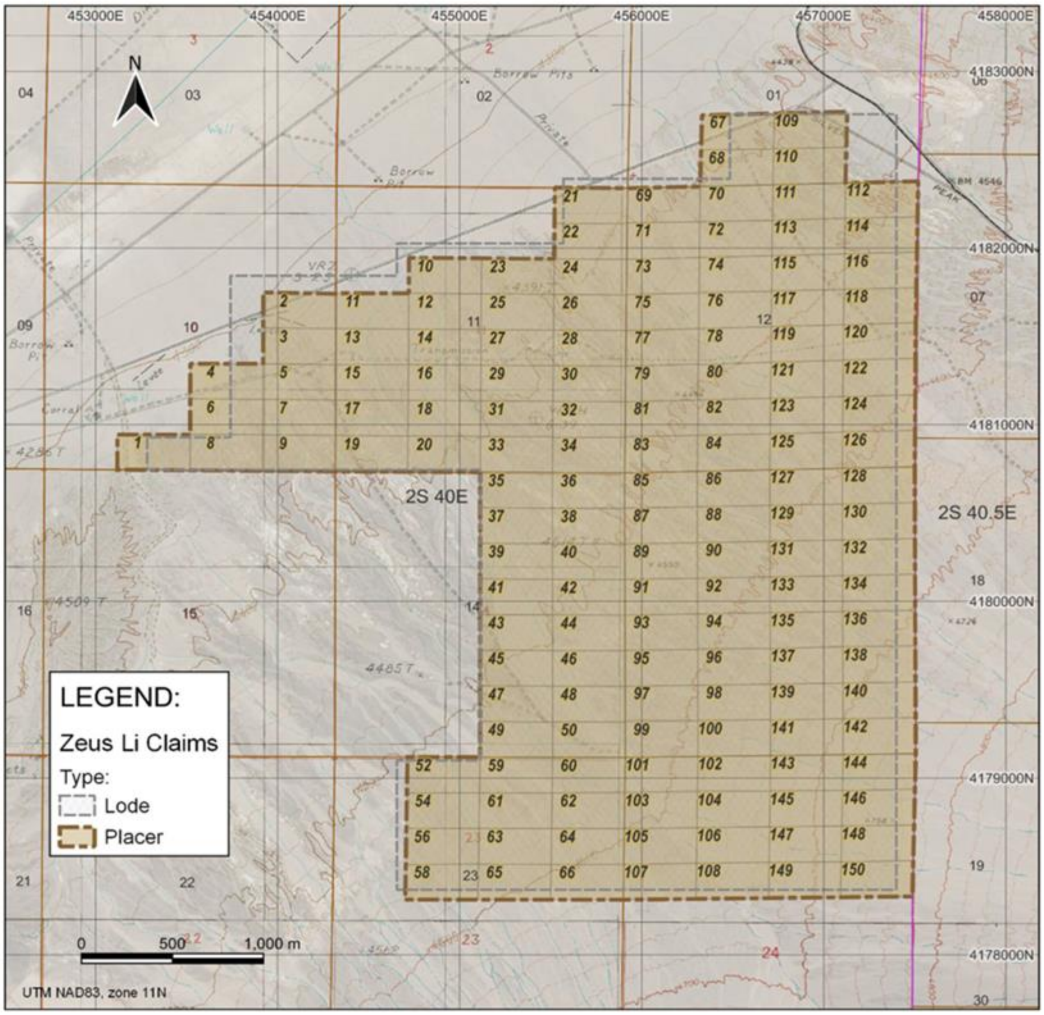
**Table 4-1: List of Claims at the Project**

| CLAIM | CLAIM NUMBERS | | BLM NUMBERS | |
|---|---|---|---|---|
| TYPE | FROM | TO | FROM | TO |
| Lode | Zeus II-001 | Zeus II-013 | NV101834582 | NV101788865 |
| Lode | Zeus II-018 | Zeus II-140 | NV101788870 | NV101646350 |
| Placer | Zeus-001 | Zeus-50 | NV101646836 | NV101649505 |
| Placer | Zeus-52 | Zeus-52 | NV101649507 | NV101649507 |
| Placer | Zeus-54 | Zeus-54 | NV101649509 | NV101649509 |
| Placer | Zeus-56 | Zeus-56 | NV101649511 | NV101649511 |
| Placer | Zeus-58 | Zeus-150 | NV101649513 | NV101786045 |

Sources: BRE 2024

The location of Noram's claims is shown in Figure 4-2, where the lode claims are denoted in grey, and the placer claims are denoted in brown and labelled with individual claim numbers.

**Figure 4-2: Land Tenure Map**




Sources: BRE 2024

### 4.2.1 Nature and Extent of Issuer's Interest

The claims are staked under Green Energy Resources, a wholly owned subsidiary of Noram. The claims are currently 100% owned by Noram. The original claims were placer type mostly staked in 2016. In 2018, Centrestone Resources over staked Noram's placer claims with lode claims. Noram, dba Green Energy Resources, filed a motion for a preliminary injunction against Centrestone. The day before the hearing on the matter, Centrestone settled out of court and relinquished their lode claims.

Following this and on the advice of counsel, Noram staked the lode claims. It was generally believed that lithium falls under the placer designation, but the Mining Law is unclear, especially since the lithium is hosted in clays rather than in brines. (Brad Peek per com to SRK 2024)

## 4.3 Royalties, Agreements, and Encumbrances

On February 28, 2022, the Company announced the completion of a transaction with Lithium Royalty Corp (LRC). The transaction granted a 1% gross overriding royalty (GOR) on the Zeus concessions as described in the sections above. The royalty agreement provides for the GOR to be paid to LRC based on future revenues generated from the Zeus concessions.

## 4.4 Environmental Liabilities and Permitting

### 4.4.1 Environmental Liabilities

There are no environmental liabilities associated with the property position nor any mine workings or development of any sort to the author’s knowledge.

### 4.4.2 Required Permits and Status

BLM land allows public access for non-impact access and exploration activities, however, all exploration work where surface disturbance will occur must be permitted.

## 4.5 Other Significant Factors and Risks

Currently there are no known significant factors or risks that may affect access, title, or right/ability to conduct any work on the Noram property.

# 5 Accessibility, Climate, Local Resources, Infrastructure, and Physiography

## 5.1 Topography, Elevation and Vegetation

The Noram claims occur between elevations of 1,311-1,463 meters above sea level. Clayton Valley contains a complex zone of disrupted structure between the northwest trending Sierra Nevada Mountain range to the west and the north-south trending Basin and Range province to the northeast. The area is in the eastern rain shadow of the Sierra Nevada Mountains and is considered to be a high desert. The vegetation of the region is sparse, consisting of widely spaced low brush. There are no trees on the property. The topography has sloping basin margins of unconsolidated and poorly consolidated sediments. These sediments are cut by typical desert washes, that can be steep sided. There are few roads crossing the property, but the area can be traversed by 4-wheel drive vehicles, often with some difficulty.

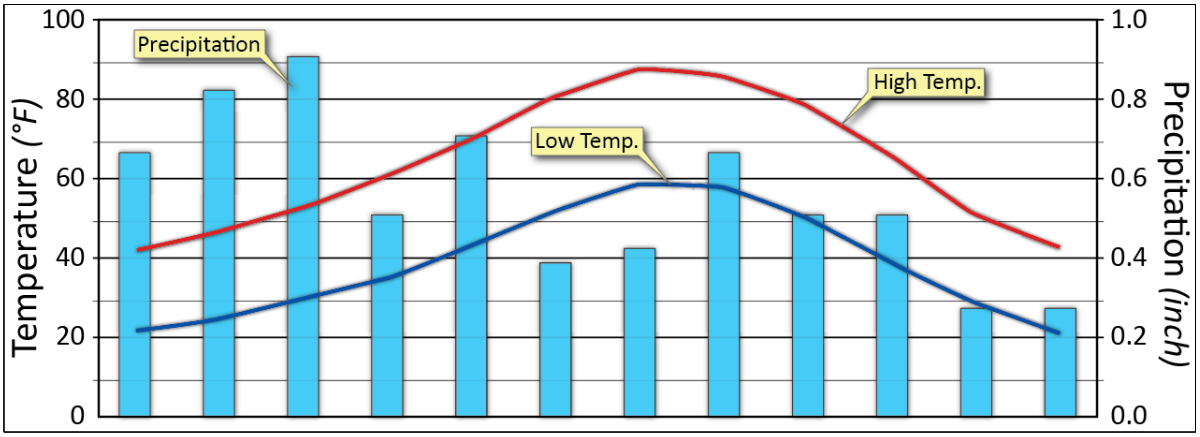
## 5.2 Accessibility and Transportation to the Property

The Zeus Lithium Site can be accessed from Tonopah, Nevada, by driving 11 kilometers (km) south on US Highway 95 and then 32 km southwest on the Powerline Road gravel road. Alternatively, it is possible to drive to the edge of the property entirely on paved roads by driving 34 km south on Highway 95 and driving a further 18 km west on the paved Silver Peak Road.

## 5.3 Climate and Length of Operating Season

Clayton Valley has a semi-arid climate characterized by hot, dry summers and cold winters. This climate is influenced by the Sierra Nevada Mountains located to the west of the valley. July is the hottest month with an average high temperature of 31.1degrees (°) Celsius (C) and average low temperature of 15°C. December, the coldest month, has an average high temperature of 6°C and an average low temperature of -6°C. The nearest town of Goldfield receives an average annual precipitation of 17centimeters (cm), usually in the form of thunderstorms which can be strong and cause extreme flooding. Snowfall is a rare event and year-round low humidity aids in evaporation. Windstorm season occurs in the summer and fall; however isolated windstorms are common all year round. The average monthly temperatures (low and high) and precipitation for Goldfield, Nevada are presented in Figure 5-1 (Climate Goldfield - Nevada, 2020). These climatic conditions are amenable to year-round field work.

**Figure 5-1: Average Monthly Precipitation and Temperatures for Goldfield, Nevada**




Source: BRE 2024

## 5.4 Sufficiency of Surface Rights

The land under Noram's claims is owned by the U.S. Government and administered by the BLM. All surface activities required for a potential mining operation will need to be permitted by the BLM.

## 5.5 Infrastructure Availability and Sources

The Zeus Lithium Project site is connected to the nearby towns via a series of well-maintained state highways which further connect to the main road network in Nevada. Zeus property is linked to the southern part of Clayton Valley via county-maintained paved and gravel roads. These roads connect the Project to the local town of Tonopah in the North and allow year-round access to the project site. The nearest rail system is in Hawthorne, Nevada, which is approximately 180 km by road to the north of the site.

### 5.5.1 Power

Power lines that supply electricity to the town of Silver Peak and the Albemarle lithium operations cross Noram's Zeus claim group.

### 5.5.2 Water

Water will be required to conduct onsite processing. The author has not verified if water rights are available, nor has it completed any hydrologic investigations toward finding sufficient water.

### 5.5.3 Mining Personnel

This part of Nevada has a long history of mining and ore processing which continues today. The nearby towns of Tonopah and Silver Peak should be capable of supplying an ample workforce. Additionally, Albemarle Corporation has used local labor to conduct lithium extraction from brines in the region for a substantial time period.

### 5.5.4 Potential Tailings Storage Areas

Noram currently has a claim area large enough to provide a sufficient tailings storage  as defined by the current conceptual pit shell.

### 5.5.5 Potential Waste Disposal Areas

Noram currently has a claim area large enough to provide a sufficient waste storage area as defined by the current conceptual pit shell.

### 5.5.6 Potential Heap Leach Pad Areas

No heap leach pad area would be required for processing the potential ore.

### 5.5.7 Potential Processing Plant Sites

Noram currently has a claim area large enough to provide a sufficient processing plant site.

# 6 History

## 6.1 Prior Ownership and Ownership Changes

The claims that comprise the property have been staked on U.S. Government land that was open to staking. There have been no previous owners, nor has there been previous production from the properties.

## 6.2 Exploration and Development Results of Previous Owners

Noram has conducted exploration for lithium on the property since the spring of 2016. Work carried out prior to March of 2023 has been detailed in previous reports (Peek and Spanjers, 2017; Peek and Barrie, 2019; Cukor and Hilscher, 2023). There has been no exploration by previous owners.

## 6.3 Historic Mineral Resource and Reserve Estimates

Mineral Resource and Reserve Estimates prior this report have been detailed in previous reports (Peek and Spanjers, 2017; Peek and Barrie, 2019; Cukor and Hilscher, 2023). Summaries of those estimates are not included herein, as the Mineral Resource and Reserve Estimates contained in this report supersede those results due to the inclusion on additional new data.

## 6.4 Historic Production

There has been no historic production from the property.

# 7 Geological Setting and Mineralization

## 7.1 Regional Geology

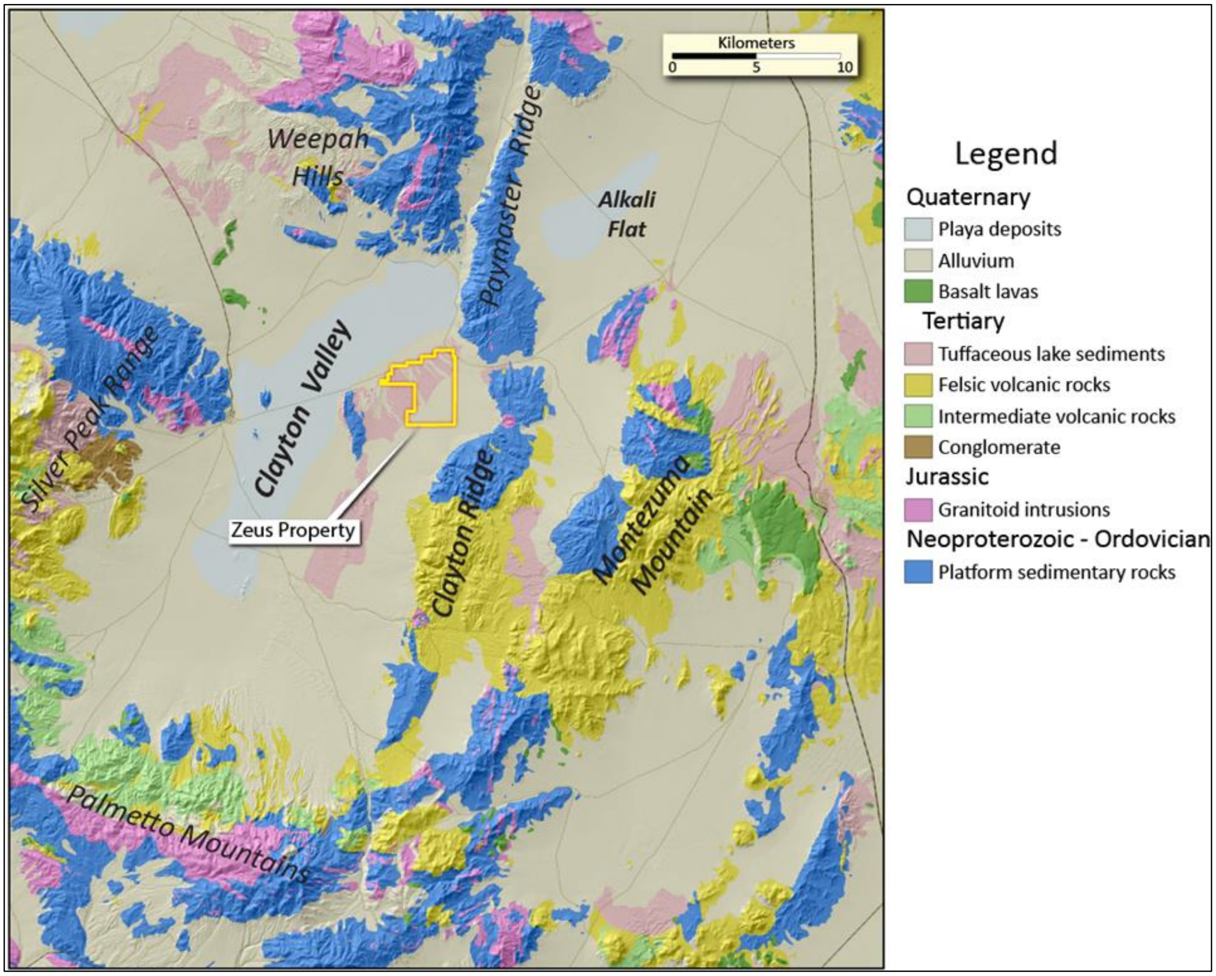
On the regional scale, the geology of the Clayton Valley area is rooted in a basement composed of a thick sequence of Neoproterozoic to Ordovician carbonate and clastic rocks that were deposited along the ancient western passive margin of North America. (Albers and Stewart, 1965 & 1972). During the Late Jurassic Period, a series of granitoid magmas intruded the basement sedimentary rocks. Volcanic eruptions of intermediate to felsic lavas and explosive volcanic eruptions occurred throughout the region in the Tertiary (Oligocene and Miocene). Volcanism was induced by Basin and Range extension described below. Thin to thick veneers of Quaternary gravels and alluvium cover much of the landscape today and playa lake deposits occur on the lowest elevation areas of the basins.

Key events preceding Basin and Range extension in the western United States include a long period of compression due to the subduction of the Farallon Plate under the west coast of the North American continental plate that resulted in thickening of the crust. Most of the pertinent tectonic plate movement associated with the province occurred in the Neogene period (23.03-2.58 million years ago) and continues to the present. By the Early Miocene (23.03-15.97 mya), much of the Farallon Plate had been consumed and the seafloor spreading ridge that separated the Farallon Plate from the Pacific Plate (Pacific-Farallon Ridge) approached North America. In the Middle Miocene (15.97-11.63 million years ago), the Pacific-Farallon Ridge was subducted beneath North America ending subduction along this part of the Pacific margin; however, the Farallon Plate continued to subduct into the mantle. The movement at this boundary divided the Pacific-Farallon Ridge and spawned the formation of the San Andreas transform fault.

The Basin and Range extension’s thinning of the crust, coupled with high-heat flow associated with the eastward directed subduction of the Pacific-Farallon Ridge beneath southwestern Nevada, induced voluminous eruption of Oligocene to Miocene age andesitic and rhyolitic lavas and explosive tuffs throughout the region. Most workers believe that devitrification of Miocene-age rhyolitic ash (glassy shards) is the source of virtually all the lithium mineralization (brines and lithium-rich clay) throughout the Clayton Valley region. Basin and Range extension of the area continued throughout the Quaternary (and continues today) with rapid erosion of uplifting mountain ranges and deposition downslope of voluminous gravels and sands into the down-dropping basin floors.

A simplified regional geology map of the area is presented in Figure 7-1 that depicts the physiography of the Clayton Valley area via a hill shaded topographic base. In addition, the final 1:75,000 scale regional geology map generated by BRE for Noram (BRE-MAP-2023-09) is given in Figure 7-2.

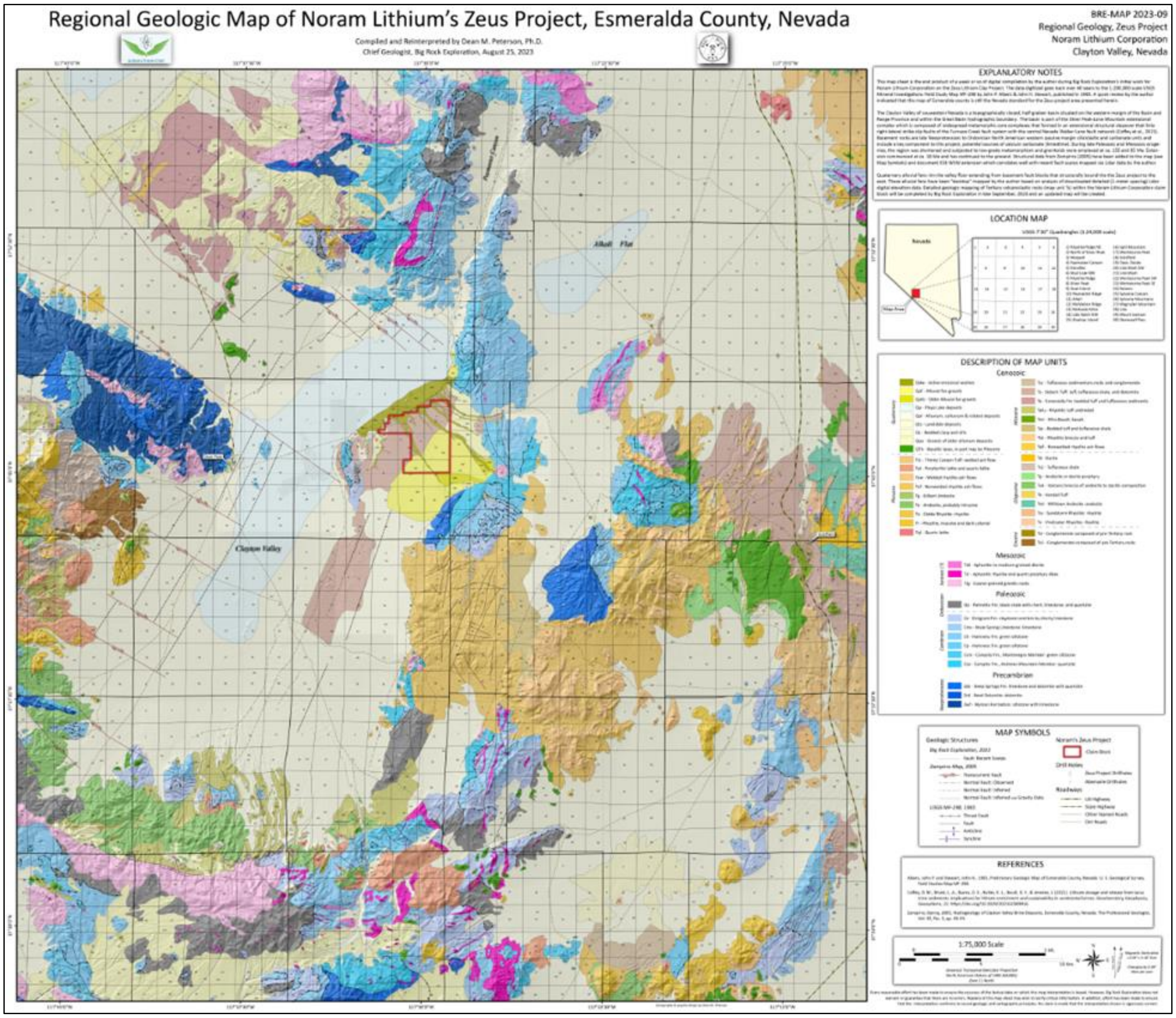
**Figure 7-1: Simplified Regional Geology Map**




Sources: BRE 2024

Notes: The Zeus property is within the thick yellow outlined area in the central portion of the map

**Figure 7-2 1:75k Regional Geology Map**




Sources: BRE 2024

Notes: The Zeus property is within the thick red outlined area in the central portion of the map

## 7.2 Local Geology

### 7.2.1 Stratigraphy

The stratigraphy of the Zeus Property area includes three sequences of materials that include, from the youngest to oldest: A) Quaternary to Pliocene age gravel deposits, B) poorly indurated lacustrine clay deposits of the Late Miocene Esmeralda Formation (Te), and C) moderately to strongly indurated, Late Miocene rhyolitic composition subaqueous pyroclastic flow deposits. Three of the Esmeralda map units display strong evidence of post depositional faulting (Tegd) and/or fault zone associated hydrothermal alteration (Tet, Tes) that are interpreted to have played a critical role in the development of the Lithium-rich, clay-hosted ores at Zeus. The description of all recognized geologic units/subunits mapped within and/or immediately adjacent to the Zeus property given below are taken from the "Description of Map Units" on the final detailed geologic map of Zeus.

**Quaternary Stratigraphy –** Composed largely of unlithified alluvial fan gravel deposits that thicken to the southeast. Gravel clasts are dominated by Neoproterozoic to Ordovician platform sedimentary lithologies (green siltstones and black to grey limestones/dolomites) sourced from the Paymaster and Clayton Ridge mountain ranges to the east, and Angel Island to the west (unit Qoa).

**Qal** - Resedimented recent gravel deposits that occur within and along the margins of active desert washes. Only shown as isolated outcrops that typically occur as 1- to 2-meter-high gravel exposures.

**Qp** - Playa lake deposits of Clayton Valley. Albemarle hole EXP-2 (SW ¼, Sec. 2) cut 1-km of siltstone, claystone, volcanic ash, halite and ended in rhyolitic lithic tuff (unit Ttb?).

**Qgw** - Fault-scarp bounded, thick wedges of resedimented alluvial gravels. Includes the fault-bounded wedge of Qaf3 gravels in the NE corner of the property as well as the large, elongate wedge of undifferentiated gravels paralleling the northwestern side of the regional-scale Paymaster Fault. where the Albemarle hole EXP-2 (SW ¼, Sec. 2), cut >50 meters of gravel from the surface.

**Qaf3** - Well-bedded alluvial fan gravels with abundant imbricated angular clasts of Cambrian green siltstone sourced from the Paymaster Ridge Mtns. Appears to form excellent construction aggregate.

**Qaf2** - Alluvial fan gravels with Neoproterozoic to Cambrian green siltstone & grey limestone clasts. Sediment sourced from the Clayton Ridge Mtns.

**Qaf1** - Alluvial fan gravels with abundant Neoproterozoic to Cambrian grey limestone clasts. Sediment sourced from the Clayton Ridge Mtns.

**Qoa** - Lithified, older (Pliocene?) alluvial fan gravels of Angel Island. Includes sequences of emerald-green colored conglomerates with abundant green siltstone clasts.

**Miocene - Esmeralda Formation (Te) –** The lithium-bearing Esmeralda Formation is a clay-rich, fresh water (alkaline) lake sediment deposit. At Zeus these poorly- to un-consolidated sediments are largely bedded to massive claystones (80% to >95% clay) with thin interbedded horizons of volcanic tephra, rhyolitic tuff, and tuffaceous siltstones & sandstones. Utilizing research on the analog Thacker Pass deposit (Benson et al., 2023), the clays of the Esmeralda Formation are interpreted to have formed in place (neoformed) via chemical reactions of very fine-grained rhyolitic volcanic glass shards (ash particles) and aqueous solutions from the highly alkaline and closed basin lake in which they accumulated. Under the solute-rich and silica-saturated saline conditions favorable for the precipitation of smectite, nanoparticles coalesce on the lake floor to form poorly crystalline gels, which, upon dehydration, become ordered and form smectite sheets. At Zeus, Li-rich Mg-smectite neoformed preferentially over end-member Mg-smectite ($Mg_3Si_4O_{10}(OH_2)$) because the alkaline lake waters contained elevated activities of Li+, Rb+, F-, and other solutes due to enrichment of these elements in the protolith rhyolitic glassy ash particles. BRE has divided the Esmeralda Formation into six distinct stratigraphically informal units (four of which have been intersected in drillholes) as described below.

**Tegd** - Tan, thickly-bedded, unsorted lithic (1-2 cm dark angular clasts) diamictites interbedded with cross-bedded arkosic grits and thin beds (20cm) rich in rounded 2-5cm white pumice lapilli. Well-exposed and irregularly silicified in the southwestern corner of the Zeus property and occurs as steeply-dipping brownish gritty sandstones in the northwestern portion of the property immediately southeast of the Paymaster fault. The diamictites (Flint, 1960) are spatially associated with the Zeus Fault and are interpreted to be dominantly mudflows and or high-density mass flows of tectonic and/or volcanic origin.

**Tes** - White to light-grey, extremely fine-grained, hot-spring-related siliceous sinter deposits. Includes thick zones (>5 meters) of pure silica as well as distinct zones of vein-like interconnected networks of silica replacing bleached clays. Unit well-exposed in the southwestern corner of the property but has not been intersected in any Zeus drilling. Interpreted to be cryptocrystalline opaline silica sinter deposits formed within the hot upflow zone of the proximal hot-spring lithofacies of Hamilton et al., 2019. Includes one interpreted concealed zone in the NW ¼ of Sec.7 from siliceous sinter gravel clasts mapped downslope in remnant alluvial fan gravel deposits of map unit Qaf3.

**Teu** (Upper Member, Esmeralda Formation) – Olive to tan, massive to thin bedded, shallowly-dipping, lithium-bearing and sulfur-poor (weighted average 785.5 parts per million (ppm) Li; 0.014% S, n=300) lacustrine claystone with very minor volcanic ash and lapilli tuff beds. Sedimentary bedding characteristics are well exposed along the margins of actively eroding desert washes.

**Tem** (Middle member, Esmeralda Formation) – Black to bluish grey, thin to medium bedded, shallowly dipping, lithium-rich and sulfur-bearing (weighted average 1195.7 ppm Li; 0.208% S, n=1182) carbonaceous lacustrine clays. Fresh drill cores typically contain minor marcasite-pyrite, have a faint smell of hydrocarbons, and a distinct smell of hydrogen sulfide ($H_2S$) when applied with weak HCl. Interpreted to have accumulated in a deeper water anoxic lacustrine setting and forms a very chemically reactive stratigraphic horizon for post-depositional, lateral-flow hydrothermal fluids. In outcrop unit Tem weathers to an olive to bluish-olive color and is only locally distinguishably from units Teu and Tel by the presence of very minor rusty iron oxides.

**Tel** (Lower Member, Esmeralda Formation) – Light to dark green, massive to thinly bedded, shallowly-dipping lithium-bearing and sulfur-poor (weighted average 777.8 ppm Li; 0.012% S, n=1517) lacustrine clays with volcanic ash and lapilli tuff beds increasing with depth. Outcrops of unit Tel weather to an olive color and I are seemingly undisguisable from lacustrine units Tem and Teu. In drill cores the lower contact with underlying lapilli tuff (unit Tlt) is gradational and hard to pick with confidence.

**Tet** – Grey to light tan, thick-bedded (1 to 5 meter thick), locally siliceous, thermogene travertine terrace deposits and/or freshwater limestone deposits. Interpreted to be within a $CO_2$ - outflow lithofacies of Hamilton et al., 2019. Forms resistant cliff faces and flat shallow-dipping surfaces in the extreme NE corner of the Zeus claim block and are immediately overlying an exposure of the footwall tuff-breccia (unit Ttb). Outcrops of Tet form distinct whitish color anomalies that can be seen in the field for many miles.

**Te** – Unmapped and undifferentiated tuffaceous lacustrine sediments of the Esmeralda Formation.

**Miocene – Footwall Pyroclastic Rocks -** The previously unknown (prior to Phase VII drilling) footwall pyroclastic rock units are interpreted herein to be the original source rocks for all of the known Lithium mineralization in Clayton Valley. These rocks are interpreted to have formed via the collapse of a major rhyolitic eruption column(s) and subsequent pyroclastic density current flow into an existing alkaline lake basin.

**Tlt** – Light to dark green, irregularly-bedded, fining-upwards rhyolitic lapilli tuff. The unit consists of 1 to 20% white lapilli (3 – 20 mm) set in a greenish matrix of poorly lithified green clay at the top to moderately lithified and coarser-grained, greenish-tan volcanic ash (1 – 2 mm) at depth. Lapilli clasts are generally composed of white, quartz-phyric rhyolite fragments and/or quartz-phyric pumice. Pumice lapilli are commonly altered to tabular, white zeolites (?). The highly variable unit thickness (11m to 184m in drill cores) and normal & reverse grading of lapilli clasts indicates that in general this unit is a subaqueous pyroclastic flow deposit that transitioned upwards into finer-grained ash turbidites and/or airfall deposits.

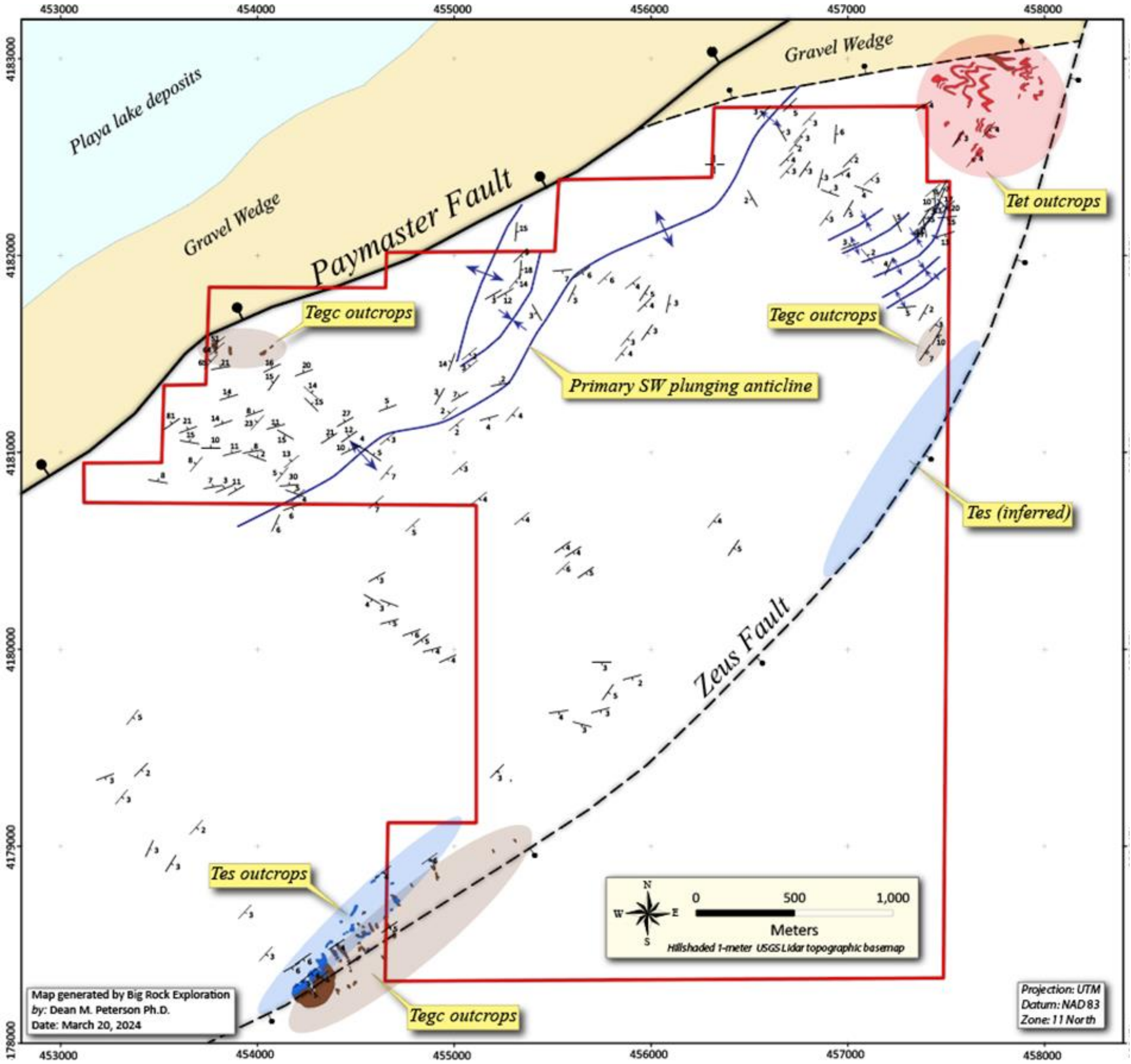
**Ttb** – Greenish-grey, very course-grained, massively bedded and indurated, lithic-vitric tuff breccia. The unit consists of 60 – 95% angular lapilli to block (5 – 100 mm) size fragments set in a matrix of volcanic ash. Fragment compositions include coherent quartz-phyric rhyolite lava as well as accessory country rock clasts of Neoproterozoic to Ordovician platform sedimentary rocks that indicate that the tuff breccia formed from a very energetic explosive volcanic eruption.

### 7.2.2 Structure

The stratigraphic units mapped at Zeus have been structurally modified across the property due to past and present Basin and Range extensional tectonics (Zampirro, 2005). These structural modifications have been documented by BRE geologists and incorporated into the final detailed geological map of the Zeus Property (Peterson and Berg, 2024). During the course of the detailed geological mapping of the Zeus property, BRE geologists observed and recorded the: A) strike & dip of bedding (n=217) of exposed bedrock, which were used extensively in the 3D modeling of the mineral resource B) trend and plunge of shallowly-plunging anticlines and synclines (n=10), and C) the trace of a number of recent subsidiary fault scarps (n=18) related to the major Paymaster fault system that offset Quaternary gravels.

In addition to structural features directly observed and recorded via mapping, a number of seemingly coherent structural features have been interpreted after integration of all geologic data associated with this project. Such interpretations include A) the “inferred and concealed” Zeus Fault - following the location of map units Tegd, Tet, and Tes, B) the development of the Quaternary map unit Qgw – fault-scarp bounded wedges of alluvial gravels, and C) interpretation of the origin of the first-order anticlinal folding of the Miocene Esmeralda Formation – induced by the ~1 kilometer of NW-side-down offset along the still active Paymaster normal fault. Many of the inherent structural features mapped on the surface around the Zeus property are shown in Figure 7-3.

**Figure 7-3: Structural Geology Map**



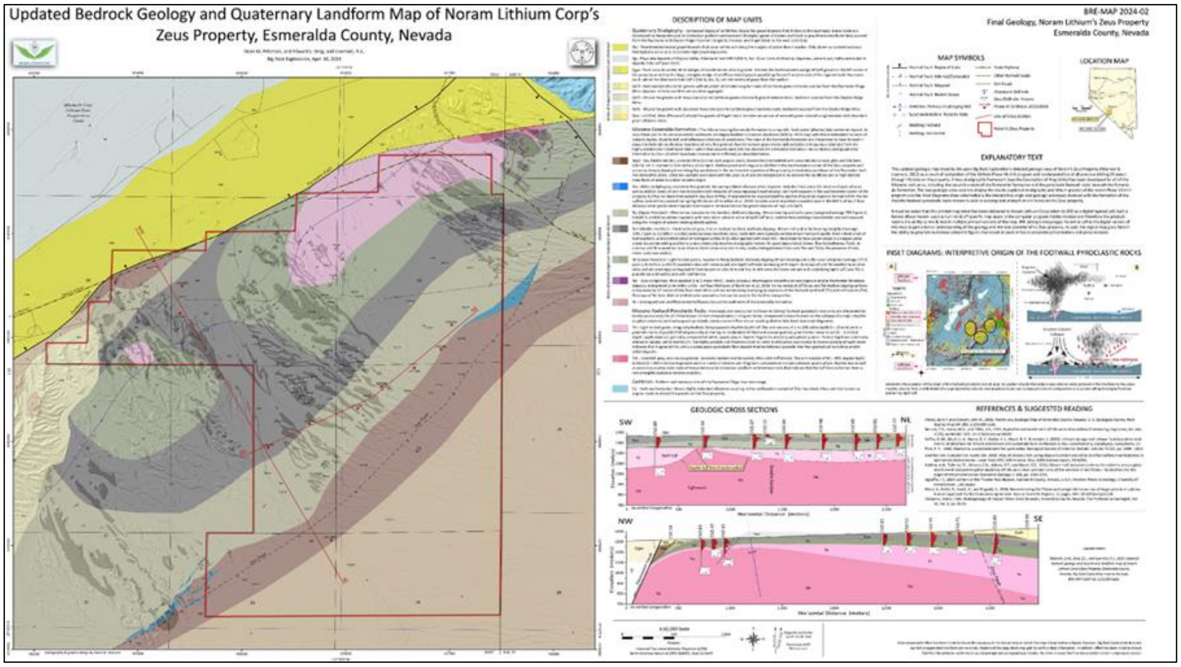

Sources: BRE 2024

Notes: The Zeus property is within the red outlined area in the central portion of the map

## 7.3 Property Geology

The bedrock geology and Quaternary landforms are shown in Figure 7-4 and a schematic cross-section is presented in Figure 7-5.

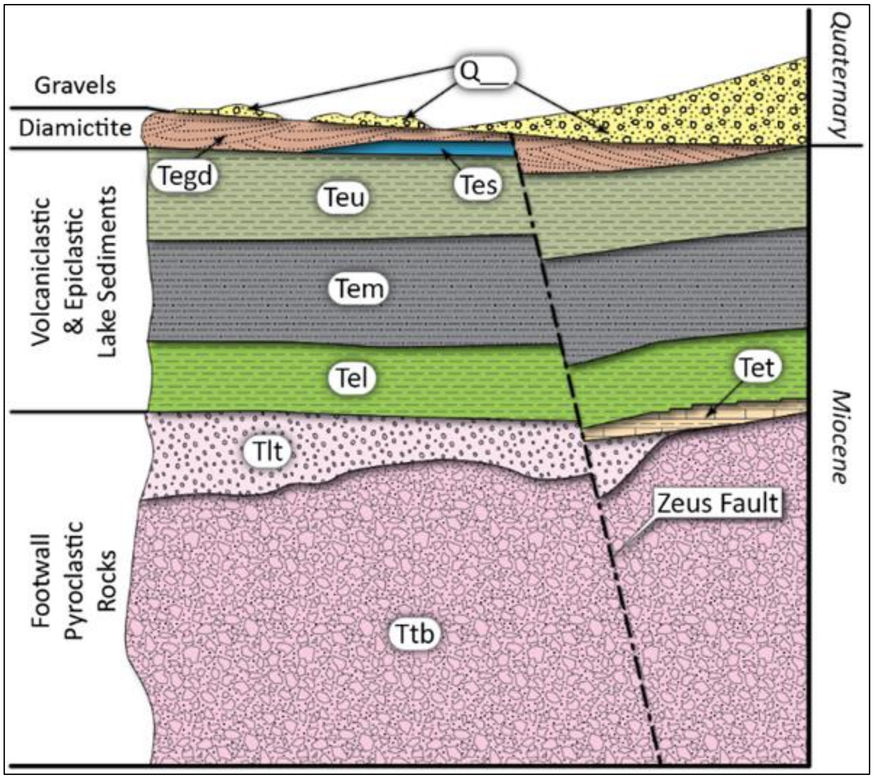
**Figure 7-4: Property Geology Map**




Sources: BRE 2024

Notes: The Zeus property is within the red outlined area in the central portion of the map

**Figure 7-5: Schematic Stratigraphic Section**



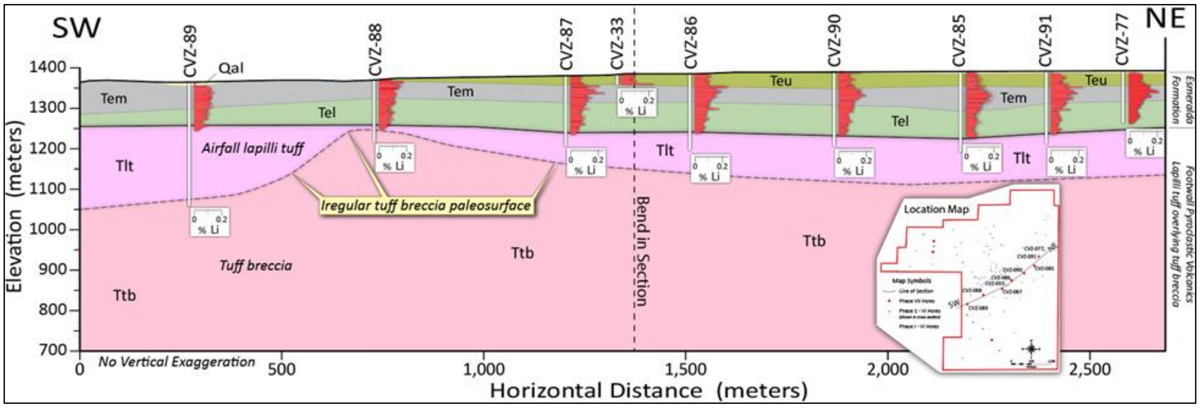

Sources: BRE 2024

Notes: Unit code lithologies described above

## 7.4 Significant Mineralized Zones

All of the lithium mineralization is hosted within clays hosted by the Esmeralda Formation. The Middle Member is the highest grade and has the best lateral continuity. The distribution of the lithium mineralization is controlled by specific lithic compositions and/or their underlying physical properties. Overall, the mineralized horizon ranges from 50 m to 150 m thick. It strikes along azimuth 40° and dips -4° southeast. The mineralization is laterally continuous within the preferred lithology but does vary in grade perpendicular to the stratigraphy. There are at least three parallel preferred planes of higher-grade mineralization. A southwest to northeast lithogeochemical cross-section through the Zeus property is displayed in Figure 7-6, which displays a strong continuity of lithium grades throughout the three informal members of the Esmeralda Formation.

**Figure 7-6: Southwest to Northeast cross section of Relative Lithium Mineralization**




Sources: BRE, 2024

Notes: Central portion of the Zeus property

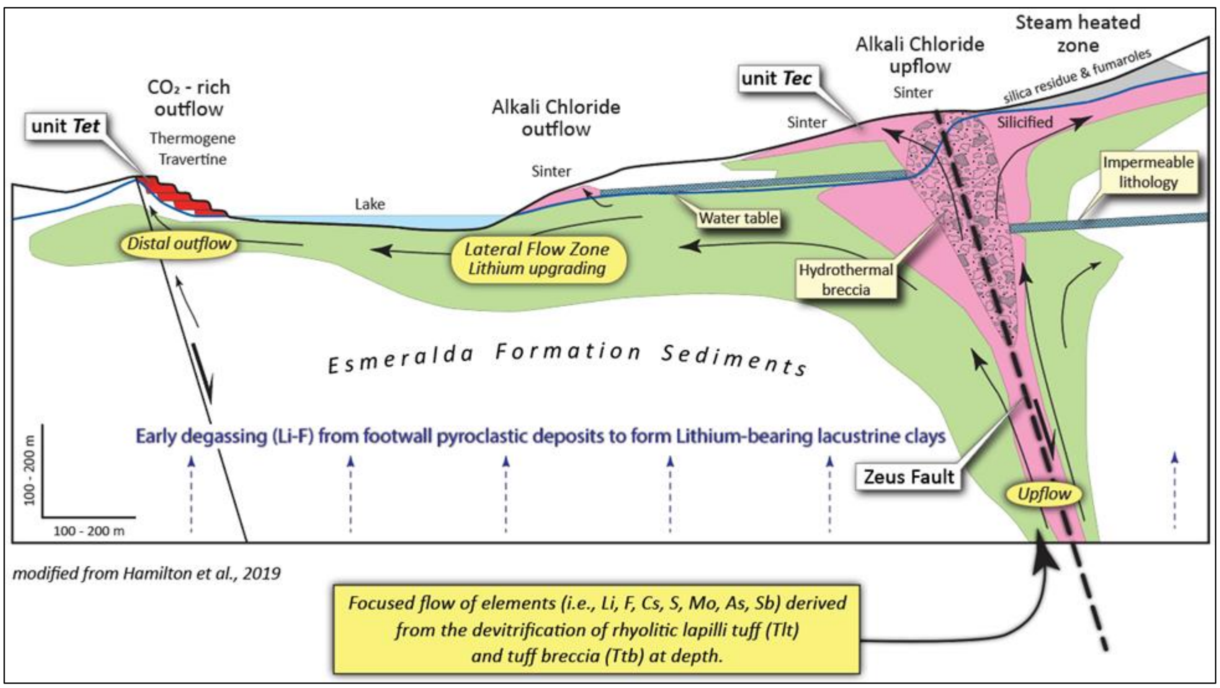
# 8 Deposit Type

## 8.1 Mineral Deposit

There is a northeast-striking fault on the Zeus property, which has informally been named the Zeus Fault. It appears that the Zeus fault played a role in upgrading the lithium grades at Zeus. In this model, siliceous sinters, thermogene travertine pseudo-sinters, and epithermal veins relate to fault-focused geothermal up-flow zones and stratigraphy controlled lateral flow and distal outflow zones. At Zeus, Li-rich Mg-smectite neoformed preferentially over end-member Mg-smectite (Mg3Si4O10(OH2) because the alkaline lake waters contained elevated activities of Li+, Rb+, F-, and other solutes due to enrichment of these elements in the protolith rhyolitic glassy ash particles.

A schematic diagram of a fault-related epithermal system from Hamilton et al., 2019. Figure 8-1 has been modified and annotated with mapped units at Zeus and forms one of the important components of the Zeus ore deposit model.

**Figure 8-1: Zeus Deposit Model**




Sources: BRE 2024

Notes: Figure modified from Hamilton et al., 2019 and annotated with features known to exist on Noram's Zeus property

An analogous ore deposit type model to the Zeus mineralization is the Thacker Pass deposit in Northeastern Nevada. At Thacker Pass, Li-bearing fluids associated with degassing of intracaldera tuff and leaching of outflow tuff supplied Li for smectite mineralization within the whole caldera. The fluids associated with magmatic resurgence, confined to the southern half of McDermitt caldera at Thacker Pass and the Montana Mountains, ascended from depth in intracaldera tuff along resurgence fault zones and fractures, and spread laterally in the caldera lake sediments via microfractures and permeable tephra and carbonate layers, causing illitization and extreme Li enrichment in claystones, up to ~2.4 wt. % of Li in illite clay. The Thacker Pass ore deposit model is given in Benson et al., (2023).

# 9 Exploration

Exploration activities to date at the Zeus project include:

- Three phases of grab sampling of exposed rock
- Detailed geological mapping at 1:5000 scale
- Development of a three-dimensional geological model

## 9.1 Relevant Exploration Work

Exploration activities at the Zeus project have all been conducted by Noram or its subcontractors including; analytical procedures by ALS Reno and Blue Coast Research, and geological services by Big Rock Exploration.

## 9.2 Significant Results and Interpretation

Work carried out prior to March of 2023 has been detailed in previous reports (Peek and Spanjers, 2017; Peek and Barrie, 2019; Cukor and Hilscher, 2023). Recent work incorporated into this report includes geological mapping detailed in Section 7, the development of an ore deposit model detailed in Section 8, one phase of diamond core drilling (Phase VII) detailed in Section 10, development of a three-dimensional geological model and resource model detailed in Section 14, and density determinations detailed in Section 14.

# 10 Drilling

## 10.1 Type and Extent

To date, there have been seven phases of drilling, encompassing 92 drill holes by Noram at its Clayton Valley Zeus project. Drilling totals 7,777.15 meters with boreholes reaching an average depth of 84.53 m. All holes were drilled with diamond drill core, varying in core diameters from BQ (36.4 millimeters (mm)) to NQ (47.6mm) to HQ (63.5mm) to PQ (85mm). Several of the holes were deepened in a subsequent drilling phase. Drilling was completed by Harrison Land Services of Moab, Utah (Phases I through V) and Titan Drilling Ltd, Elko, Nevada (Phase VI and VII). A drillhole location map is given in Figure 10-1.

## 10.2 Drilling Phases I – III

The details of the first three drilling campaigns have been described in the two NI 43-101 reports: "Lithium Inferred Mineral Resource Estimate, Clayton Valley, Esmeralda County, Nevada, USA, effective date July 24, 2017 (Peek and Spanjers, 2017) and "Updated Inferred Lithium Mineral Resource Estimate, Clayton Valley, Esmeralda County, Nevada, USA," effective date February 20, 2019 (Peek and Barrie, 2019).

Phase I drilling occurred in December 2016 and January 2017. Forty-six short diamond drill holes were drilled using backpack-style rigs for a total of 659.6 meters of BQ- size core. Most of the holes were between 9.1 and 15.2 meters.

Phase II drilling was completed in April and May 2018, producing BQ-size core. It consisted of the deepening of 9 of the core holes drilled during Phase I. The previous holes were not re-entered but were drilled from surface for a total footage of 739.4 meters.

Phase III drilling commenced in November 2018 and was completed the following month. It consisted of 16 holes with an average depth of 29.2 meters for a total of 467.9 meters. The objective of the program was to drill these shallow holes and later deepen the encouraging ones.

Phase IV drilling, was completed during October and November of 2019. Six core holes were deepened. These holes had been drilled to approximately 30 meters as part of phase III with the idea that the most promising drill holes would be deepened in Phase IV. An additional 339 meters of drilling was completed during Phase IV.

The Phase V drill program was intended to expand the previously defined resource to the southeast with widely spaced holes; it was successful in discovering thick sections of well mineralized lithium-rich sediments. Drilling began around November 1, 2020, and ended around March 6, 2021. In all, ten core holes were drilled for a total of 1,307.1 meters with an average depth of 130.7 meters. Some of the interesting lithologic features that came to light from the Phase V holes are:

- Two of the holes on the southeast side of the drilled area did not reach the targeted claystone and were stopped in surficial gravels. The two holes, CVZ-60 and CVZ-69 were stopped in a thick section of surface gravel at 92.0 and 107.3 meters, respectively. These two holes are interpreted to be on the downthrown southeast side of what has been interpreted as the Zeus fault.

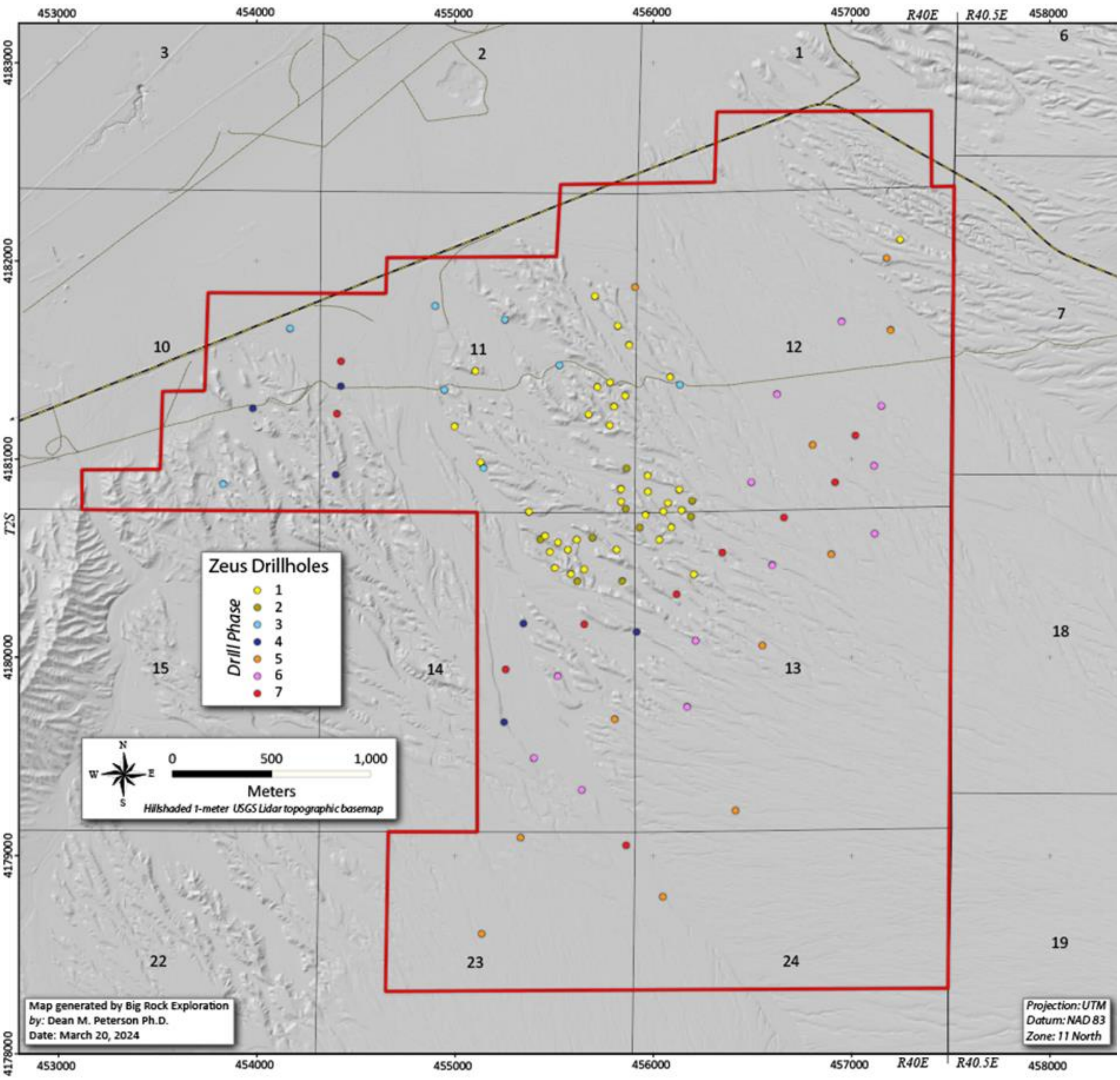
Phase VI drilling was also aimed at extending the previously identified resource southeastward with widely spaced drill holes. Phase VI drilling was successful in discovering thick sections of well mineralized lithium rich sediments. This phase was conducted by Titan Drilling Ltd. of Elko, NV. The drilling began in mid-March 2022 and was completed around April 26, 2022. Twelve drill holes were drilled for a total of 1,598.1 meters and average depth of 133.2 meters.

Phase VII drilling was conducted by Titan Drilling Ltd. of Elko, NV from November of 2023 to January of 2024 and consisted of 10 HQ diamond drill holes for a total of 2,110.74 meters with an average depth of 211.1 meters. The work was coordinated and overseen by Big Rock Exploration, and the core was logged and sampled at the Noram core storage facility in Tonopah, NV by geologists from Big Rock Exploration.

The goals of the Phase VII program were to increase geological and mineral continuity confidence in the highest-grade portion of the deposit trending NE/SW, test the orientation of the stratigraphy and mineralization in the northwest portion of the claims, and test further to the south-southeast of the last mineralized drillhole in that direction.

The Phase VII drilling program was successful in increasing confidence in the stratigraphic, structural, and genetic interpretations generated during the previously completed geological mapping and ore deposit modeling work discussed in Sections 7 and 8, increasing confidence in the mineral continuity along stratigraphic horizons in the highest-grade portion of the deposit, and extending known mineralization to the south-southeast.

**Figure 10-1: Location Map of Drillhole Collars**



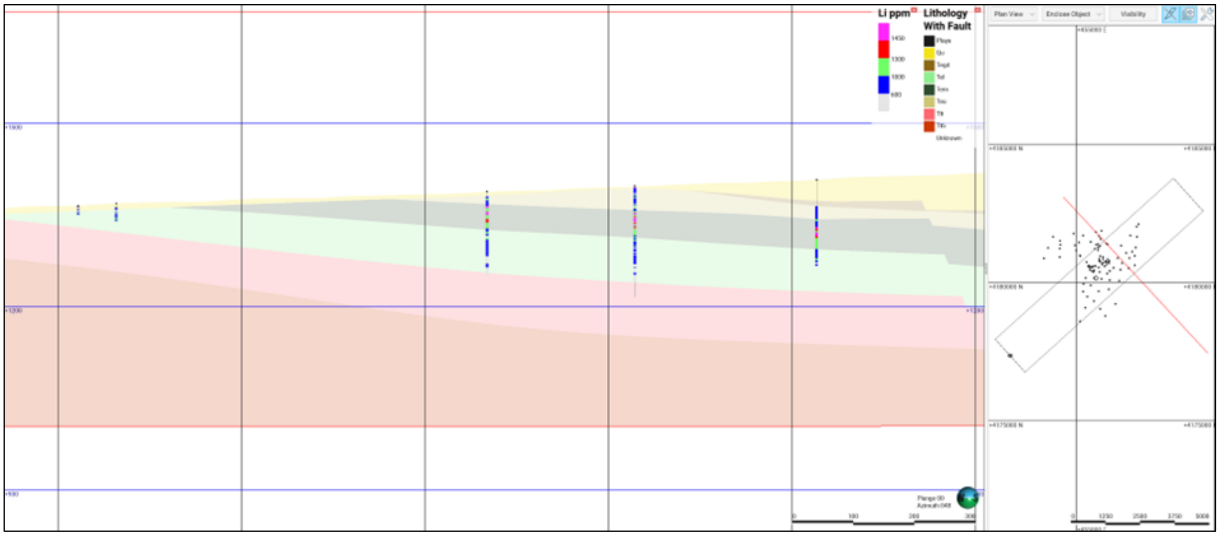

Sources: BRE 2024

Notes: The thick red outline denotes Noram's property boundary.

## 10.3 Interpretation and Relevant Results

All drilling is vertical and the mineralization dips -4° SE. Therefore, the mineralized intercepts are not precisely true thickness but very close to it. As discussed above, there are preferred planes of higher-grade mineralization within the Esmerada Formation. These can be seen in Figure 10-2.

**Figure 10-2: Cross Section of Drilling Results**




Sources: SRK 2024

# 11 Sample Preparation, Analysis, and Security

## 11.1 Security Measures

Mapping grab samples were selected at the outcrop by geologists. Samples analyzed during Phase VII drilling were collected from HQ-size drill core. Drill core was placed into waxed cardboard boxes at the drill rig. Depths were marked by the drillers and boxes stacked at the rig. Geologists collected drill core from the rig and delivered it to the secure Noram core storage facility in Tonopah, NV. Geologists completed geologic logs, collected core recovery data, and density measurements. Sampling was done as a continuous series with samples marked at nominal intervals of 1.52 meters. Where necessary, samples were shortened to honor geologic boundaries. Barcoded samples tags were stapled into the core boxes at the sample boundaries. Core samples to be sent for assay were split half-core. The method of splitting depended on the rock hardness. Soft, clay-rich core samples were split with a putty knife or a chisel and hammer. Harder samples (e.g., partially welded to welded volcanics) were cut using a water-cooled diamond tile saw. Half-core and mapping grab samples were placed into bags with duplicate barcoded sample tag, another duplicate barcoded sample tag was stapled to the bag, and the sample number was written on the bag exterior. Sample bags were placed into supersacks on a pallet and delivered by freight to ALS Laboratories in Reno, NV for sample preparation and assay.

## 11.2 Sample Preparation for Analysis

Sample preparation for analysis was performed at ALS Laboratories in Reno, NV. Samples were dried in a kiln at 100-105°C for four hours prior to crushing and pulverizing. Dried samples were crushed to 70% passing 2mm in size. Crushed material was then split using a riffle splitter to produce a 250 g aliquot that was pulverized in a puck-mill to 85% passing 75 microns in size.

## 11.3 Sample Analysis

Aliquots of pulverized material were digested in a four-acid solution and analyzed via inductively coupled mass spectrometry (ICP-MS) for 48 elements (ME-MS61).

## 11.4 Quality Assurance/Quality Control Procedures

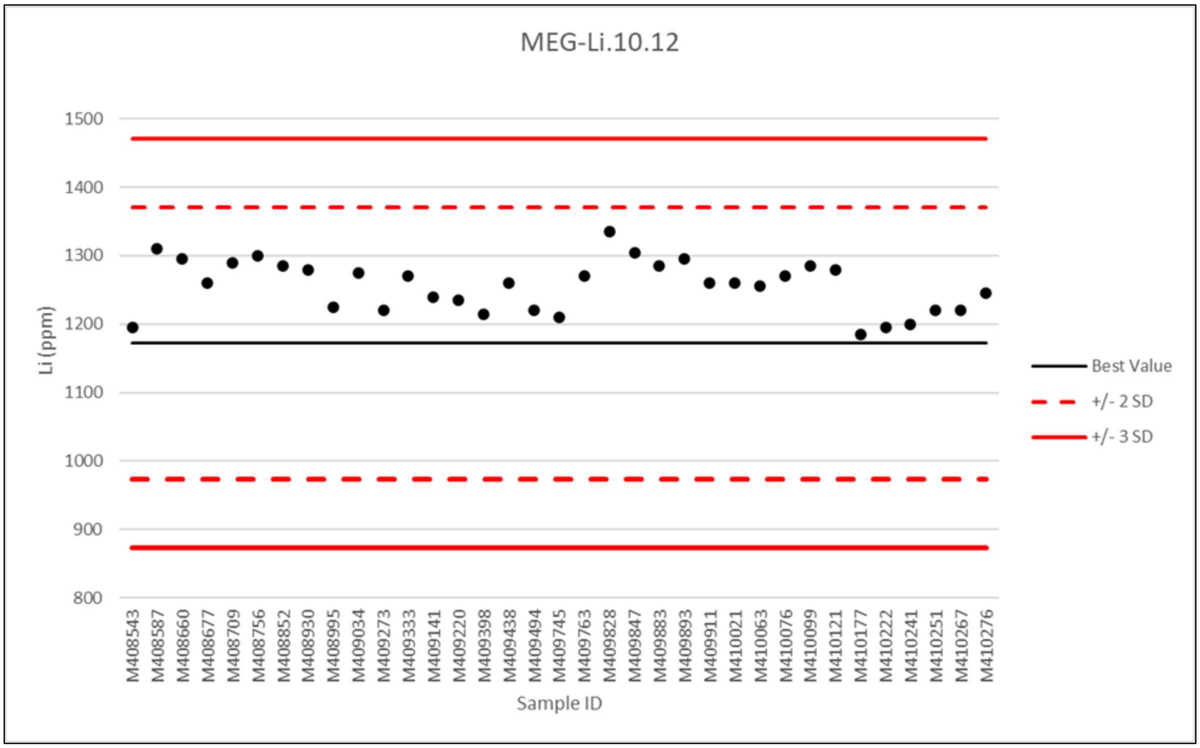
Monitoring of analytical accuracy and precision was conducted by the insertion of control samples in-line with the primary sample stream. Control samples used were blanks (silica sand termed “Silver Sand”), certified reference materials (three MEG-Li standards), field duplicates (1/4core), and pulp duplicates (prepared by the lab).

### 11.4.1 Standards

Certified reference materials (CRMs) were purchased from Minerals Exploration and Environmental Geochemistry in Reno, NV(MEG). Phase VII drilling utilized three MEG standards totaling 63 CRMs inserted into the sample stream (4.3% of total assays). All 35 MEG-Li.10.12 (1174 ±99.5 ppm Li; Figure

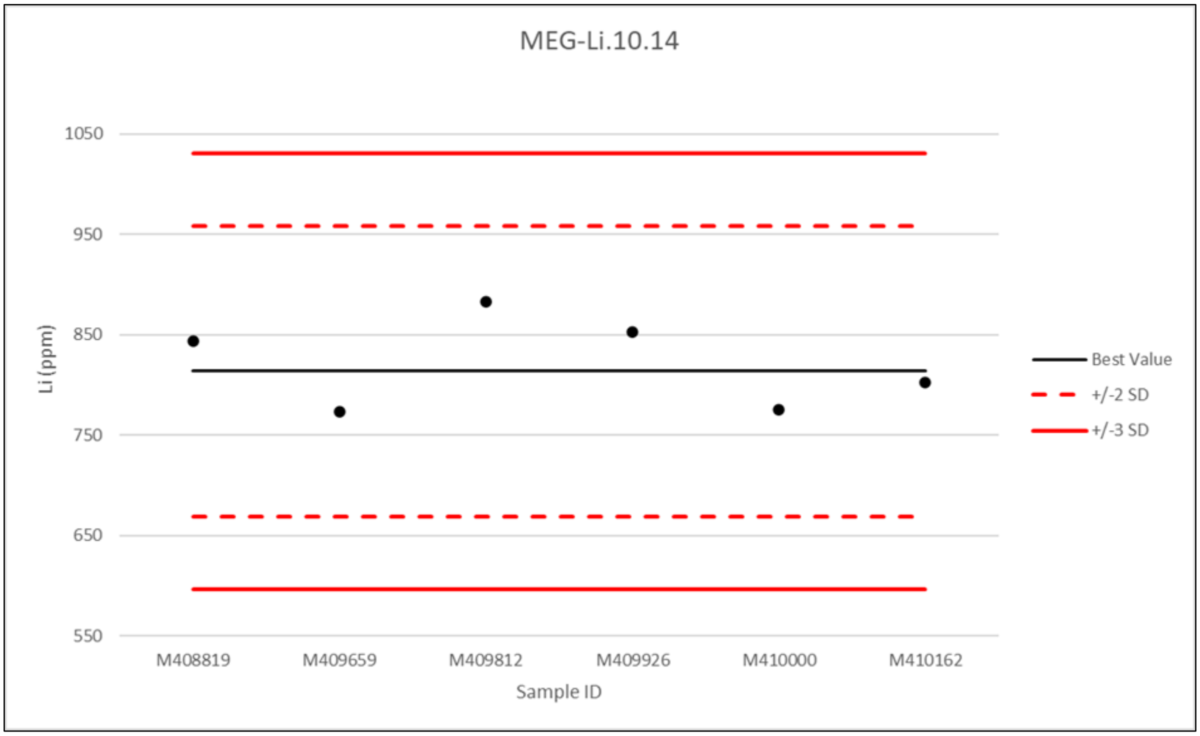
11-1) and six MEG-Li.10.14 (814 ±104.8 ppm Li; Figure 11-2) fell within the accepted 2 standard deviation range. Out of 22 MEG-Li.10.15 analyses, one fell 5 ppm Li outside of the accepted 2-standard deviations (Figure 11-3). Overall, all CRM results were found to be within acceptable tolerances, with the one failed analysis falling outside of but very close to the accepted range. There is a high bias in CRM results with 97% of CRM assays reporting higher than the accepted value. Only MEG-Li.10.14 results included assays below the accepted value.

**Figure 11-1: Range of Values for MEG-Li.10.12 for Phase VII Drilling**



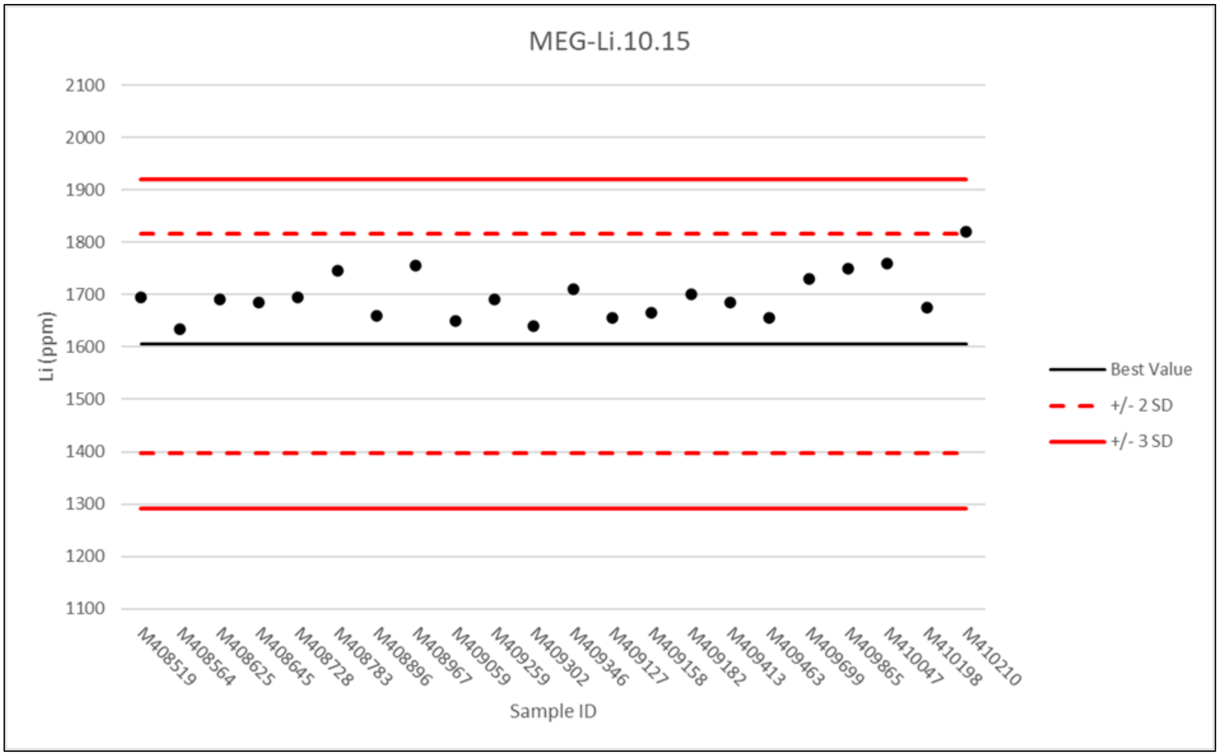

Sources: BRE 2024

**Figure 11-2: Range of Values for MEG-Li.10.14 for Phase VII Drilling**




Sources: BRE 2024

**Figure 11-3: Range of Values for MEG-Li.10.15 for Phase VII Drilling**

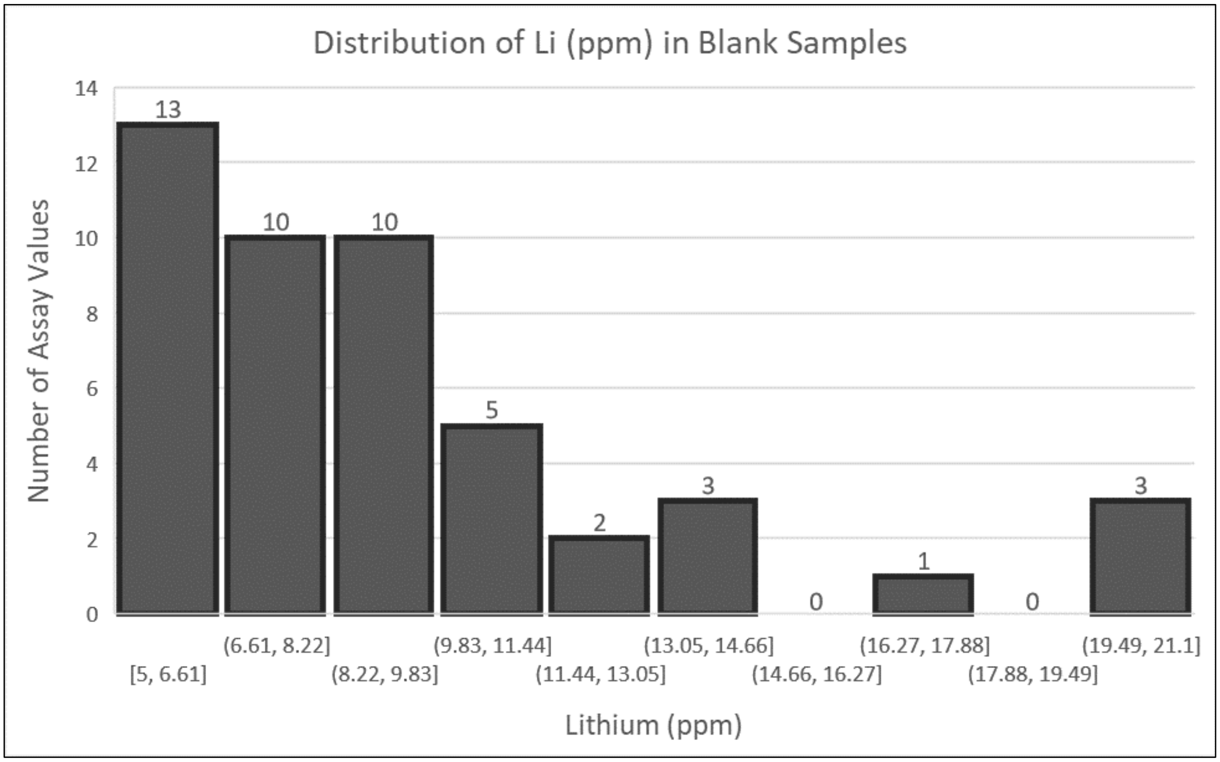



Sources: BRE 2024

## 11.4.2 Blanks

Forty-six blanks were run in-line with primary samples constituting 4.4% of the overall assays. All blank analyses are considered within an acceptable range of Li values. See Figure 11-4 for the distribution of blank lithium concentrations.

**Figure 11-4: Distribution of Lithium Concentrations in "Silver Sand" Blanks (n=46)**

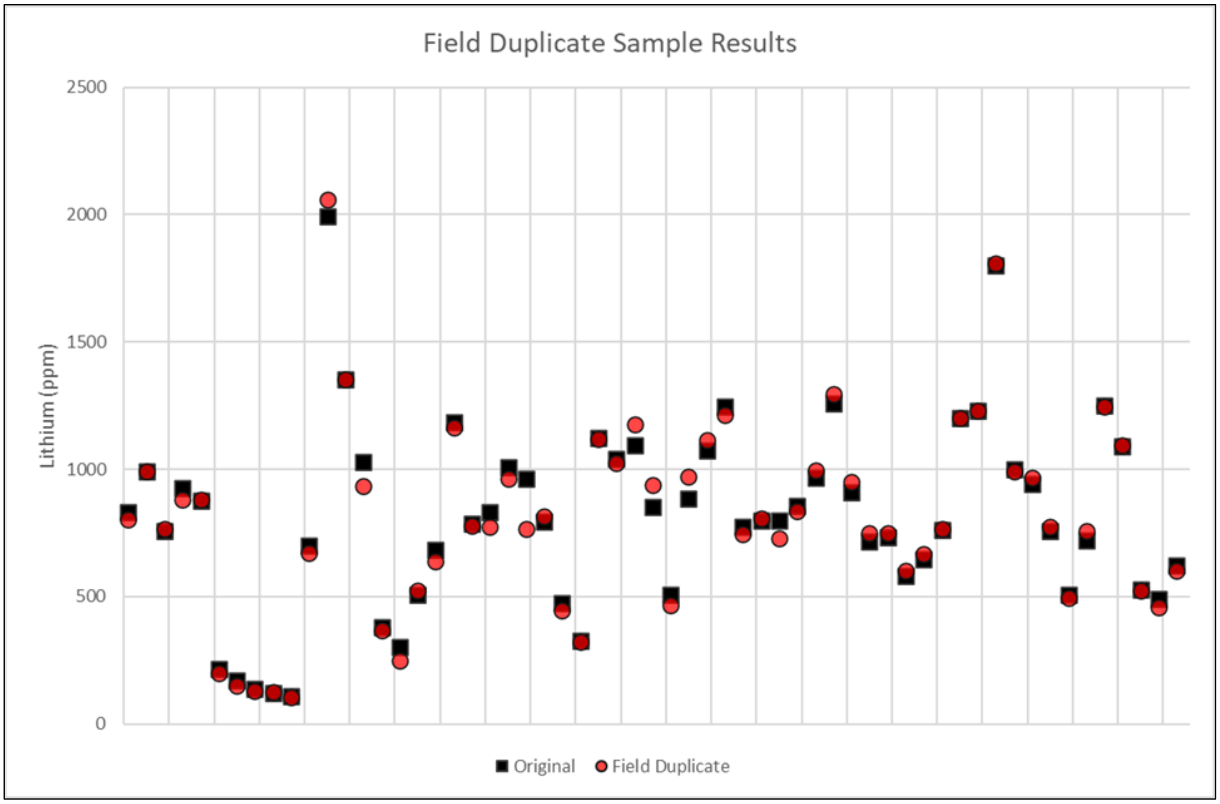



Sources: BRE 2024

### 11.4.3 Duplicates

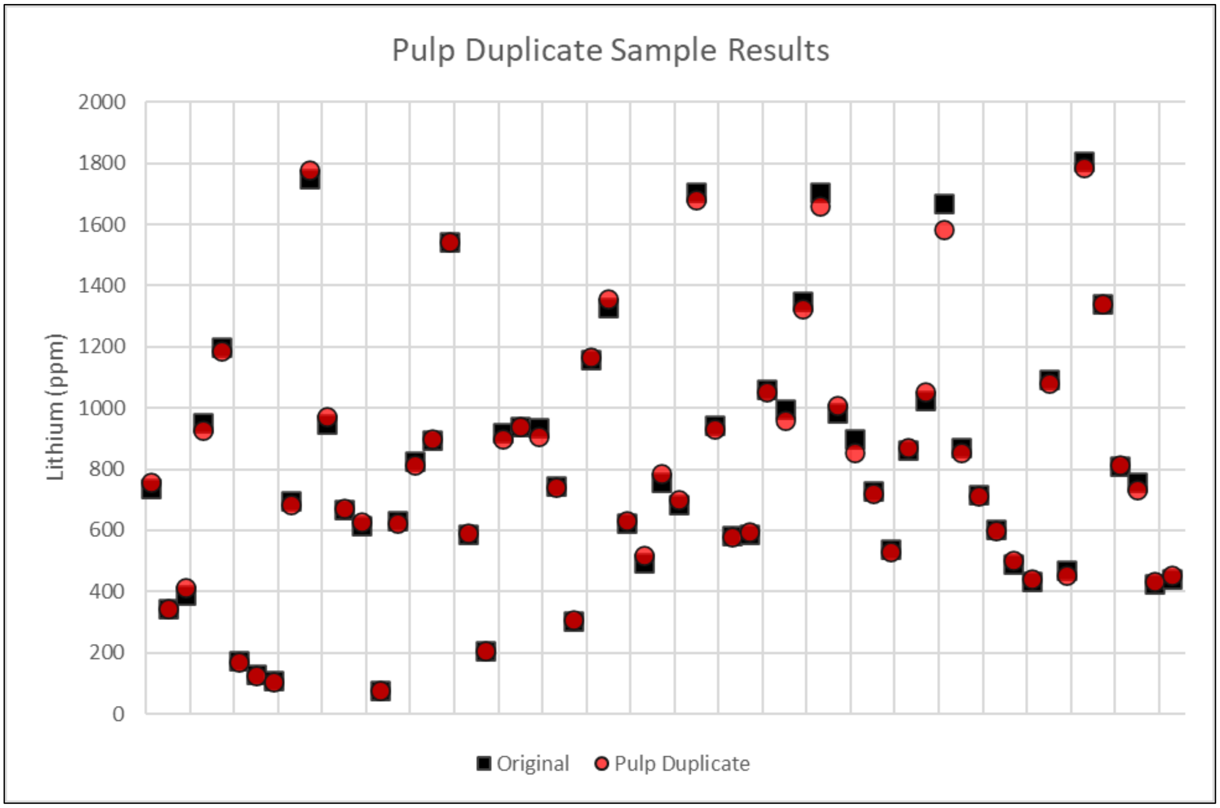
Field and pulp duplicates were used to monitor homogeneity of the rock and reproducibility of assay results. Field duplicates (Figure 11-5) constituted two ¼ core samples taken from the same interval, where the right ¼ is the primary samples and the left is the duplicate. Fifty-nine field duplicate pairs (4% of the total assays) were analyzed; results were close to the primary samples, with an average relative standard deviation (RSD) for samples pairs of 2%. The greatest RSD for a sample pair is 11% followed by a 9.4% pair. Pulp duplicates (Figure 11-6) were prepared by the lab and inserted into the sample stream. Pulp duplicate results for 59 pairs (4% of the total assays) reproduced the primary pulp accurately, with an average sample-pair deviation of 0.93% and a maximum RSD of 2.61%.

**Figure 11-5: Results of ¼ Core Field Duplicates from Phase VII Drilling**




Sources: BRE 2024

**Figure 11-6 Results of Pulp Duplicates from Phase VII Drilling**




Sources: BRE 2024

## 11.5 Opinion on Adequacy

The procedures used for sample security, sample preparation, analytical procedures and Quality Assurance/Quality Control (QA/QC) are adequate to support the current Mineral Resource Estimation.

# 12 Data Verification

Work onsite by Dean Peterson and Teddy Berg of Big Rock Exploration was conducted as direct reports and under the direction supervision of the author.

Some of the historic work was conducted under the supervision of other CP's. The author was unable to review this work at the time it occurred, as they were not yet associated with the project. Data verification procedures have been applied to the greatest reasonable extent possible for work done prior to the author's involvement in the project and disclaimed where appropriate to alert the reader to the nature of the data being presented.

Any records that exist but were incomplete or missing details that render them unverifiable were excluded from use in geology and resource models. Any reference to non-complaint historic information in this report is clearly disclosed and presented to provide supporting context to the exploration agenda and its advancement. The conclusions and recommendations in this report are drawn based on verified data.

## 12.1 Procedures

For the purposes of this report, the author/QP reviewed the following:

- Internal and laboratory QA/QC results, discussed in Section 11
- Validated lithologic logs to core photos
- Validated Lithologic logs to geologic model contacts
- Verification of drill collar locations, as discussed in Section 12.2 below
- Verification of downhole deviation, as discussed in Section 12.3 below
- Verification of accurate data transfer to database, as discussed in Section 12.4 below

## 12.2 Drillhole Collars

The authors of the March 2023 Mineral Resource Estimate (Cukor and Hilscher, 2023) were able to confirm the locations of many of the previous drillholes. By the time of the Phase VII drilling program, these locations were reclaimed to varying degrees and some of these were impossible to verify. Others were reclaimed to a point where the drill pad was able to be located and confirmed, though the precise collar location was impossible to be definitively located. For the Phase VII program, several drillhole collars were measured with handheld GPS at different times to verify their accuracy. When the collar coordinates were plotted onto the topography during the geological modeling process, it was found that some of the elevation coordinates plotted above or below the topography. This discrepancy was found to be minimal in most cases (<1 meter) but was rarely found to be up to 2 meters off from the topography. The collar elevations were adjusted to lie on the topography and were considered otherwise acceptable for resource estimation.

## 12.3 Downhole Deviation

No downhole surveys were performed on Phases I -VI drill programs. It was reasonably assumed that the vertical drilling through soft ground would result in insignificant deviation of the drillhole. Downhole surveys were performed on all 10 Phase VII drillholes using a Champ North Seeking Gyro, and the resulting deviation was extremely minimal. These surveyed holes illustrate that the previous unsurvey holes are acceptable for resource estimation.

## 12.4 Analytical Results

Authors of previous reports (Peek and Spanjers, 2017; Peek and Barrie, 2019; Cukor and Hilscher, 2023) have deemed that sampling procedures for drilling phases I-VI were adequately performed and the drillhole assays were sufficiently accurate for resource estimation. No authors of this report were a part of those earlier drilling campaigns or reports and were therefore not able to personally visit the site during those programs. During the Phase VII drilling program, Dean Peterson of Big Rock Exploration was on site during the drilling, logging, and sampling of the drillholes and was able to personally oversee the implementation of the sampling protocols defined in Section 11.

Spot checks of greater than 10% of the certificates of analysis from all drilling phases were performed by BRE to ensure that the certificates match the drillhole database used for resource estimation. The author is satisfied that correct laboratory procedures were in place and followed.

## 12.5 Limitations

The data verification is limited to the procedure described above.

## 12.6 Opinion on Data Adequacy

The data verification completed as part of this study is adequate to support the Mineral Resource estimation.

# 13 Mineral Processing and Metallurgical Testing

## 13.1 Testing and Procedures

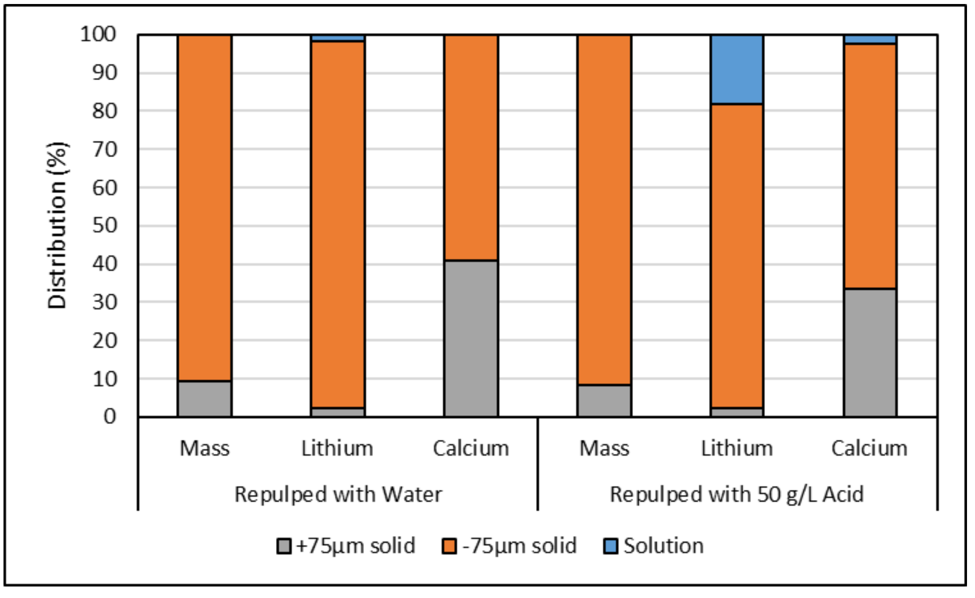
SRK has been provided with reports on beneficiation, leaching and LCE production. A summary of this information is provided below.

## 13.2 Beneficiation

Testwork was done on the lithology samples to determine if a size-based pre-treatment would have potential to remove a low lithium, calcium (limestone) rich coarse fraction which would remove acid consumers prior to leaching. In the testwork, all nine samples were screened at 75 microns after repulping with water, and then with a 50 g/L acid solution, to mimic the inclusion of the post leach acid recovery process. The average of the nine tests is summarized in Figure 13-1. Due to the practicality of separating these viscous solids at ultra-fine sizes a separation size of around 75 microns was considered a practical limit, so separation was tested at this size.

When repulped in water, the +75-micron fraction contained 9.5% of the mass, 41% of the calcium and only 2.5% of the lithium; 1.7% of the lithium was water soluble. When repulped in dilute acid, the coarse fraction contained around 8.4% of the mass, 34% of the calcium and only 2.4% of the lithium, while 18% of the lithium was acid soluble. These tests confirmed the possibility of removing a coarse calcium rich fraction, after repulping in recycled acid.

**Figure 13-1: Beneficiation Summary**

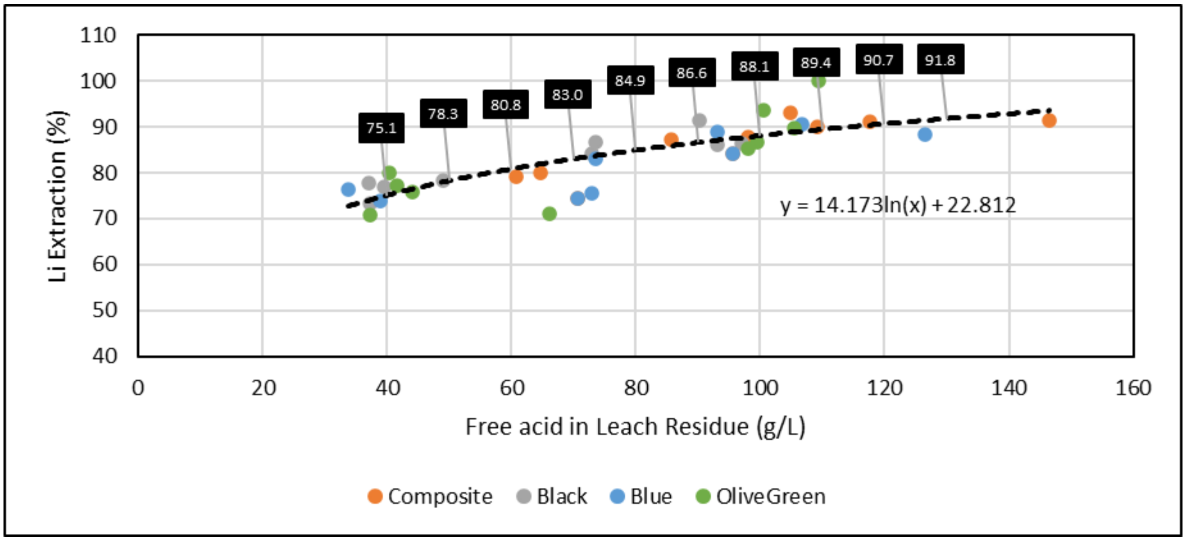


## 13.3 Leaching and Neutralization

Development of a viable small scale laboratory procedure for separating the coarse solids from the fines, without extensive dilution, was not achieved, so the leach development work was performed using samples without beneficiation.

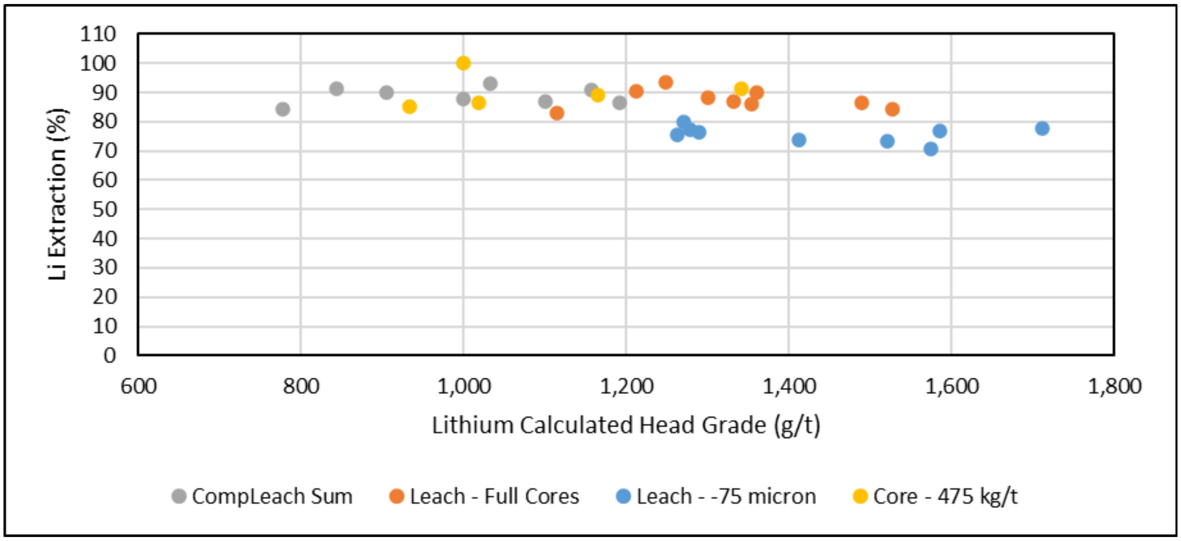
The leach testwork is best summarized by Figure 13-2 which shows lithium recovery vs residual free acid in the solution after leaching.

**Figure 13-2: Leaching Summary – Recovery vs Free Acid**




Another important outcome from this work is that recovery does not seem to be impacted by head grade as shown in Figure 13-3.

**Figure 13-3: Leaching Summary – Recovery vs Lithium Head Grade**




Acid consumption throughout the test program is summarized in Table 13-1. While acid consumption varied between 200-350 kilograms per ton (kg/t) on a test-by-test basis the average for each sample type was reasonably consistent and averaged 268 kg/t (average acid addition was 480 kg/t).

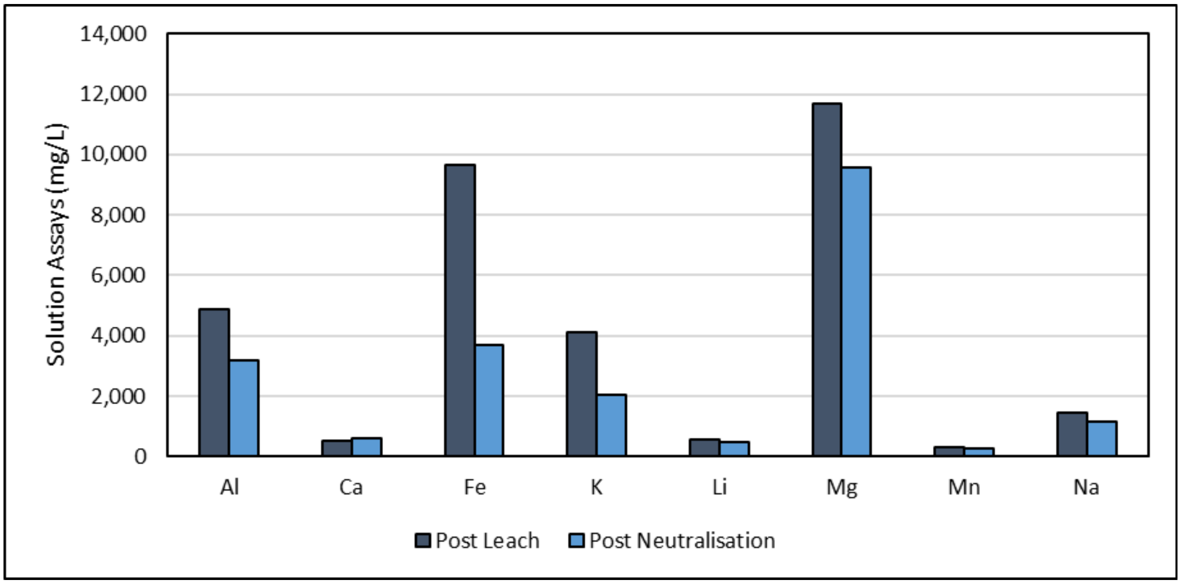
Acid deportment suggests that about 22 % of the acid is consumed by reaction with calcite in the ore, so if a third of this can be removed through beneficiation, acid consumption could be reduced by approximately 20 kg/t, which equates to about 10 g/L free acid in the leach discharge.

**Table 13-1: Leach Acid Consumption**

| Samples | Average Acid Consumption (kg/t) |
|---|---|
| 900 ppm Li Grade Composite | 257 |
| 1050 ppm Li Grade Composite | 258 |
| 1200 ppm Li Grade Composite | 292 |
| Olive Green 1 | 241 |
| Olive Green 2 | 272 |
| Olive Green 3 | 252 |
| Olive Green 4 | 285 |
| Blue 1 | 251 |
| Blue 2 | 263 |
| Black 1 | 268 |
| Black 2 | 288 |
| Black 3 | 295 |
| Overall | 268 |

After leaching, the slurry is neutralized with limestone slurry to a pH of about 2. The average solution composition for the nine lithology samples leached using 475 kg/t acid is shown in Figure 13-4 In the tests the free acid concentration in the leach discharged averaged 99 g/L. The solution composition before and after neutralization suggests, that by pH 2, some aluminum, iron and potassium has started to precipitate.

**Figure 13-4: Leaching Summary – Solution Composition**




## 13.4 Solid-Liquid Separation

Thickening and filtration testing was performed by Pocock and Paterson & Cooke on products from leach and neutralization testing performed at Kemetco Research. Both vendors received samples generated by leaching the 1050 g/t lithium grade composite. Pocock performed the testing at Kemetco, as received slurry samples; Paterson & Cooke were sent a filter cake from a bulk leach test after neutralization to pH 2.

At Kemetco, the neutralized bulk leach residue filtered well and produced a 50 mm cake at 37.5 % moisture, as shown in Figure 13-5.

**Figure 13-5: S/L Separation Summary – Bulk Leach Filter Cake**

The following conclusions were taken away from the Pocock work.

- The nonionic, medium to high molecular weight nonionic polyacrylamide flocculant SNF-920-SH was determined to be suitable for both the leach discharge and neutralization discharge applications.
- Slurry needs to be diluted to 3-5% solids to maximize settling characteristics.
- Flocculant doses of 70-75 g/t are required in the first thickener and drop slightly through a simulated CCD circuit.
- It was concluded that the material would thicken to 22% solids by weight, which is below the solid concentration used for the leach testwork. This suggests that once diluted, thickening may be problematic.
- The CCD simulation showed similar underflow solids concentrations can be achieved as the pH increases through washing.
- Filtration can produce a cake with about 40% moisture using air blow and squeeze.
- Filtration cycle times below 20 minutes can be achieved without washing.

The following conclusions were taken away from the Paterson & Cooke work.

- Dynamic thickening shows that after 24 hours of compaction thickener underflow can be generated with 35% solids by weight, indicating that the tailings are amenable to high-density or paste thickening.
- The leach residue is highly thixotropic, even the as received leach product filter cake, which was dry and crumbled to touch, could be sheared so sample behaved as a fluid. This property would make conveying filter cake over any distance problematic.
- Filtration with a high form pressure seems to be best at generating a low moisture cake. A membrane squeeze after filtration can reduce moisture content but a final air blow shows limited benefit.
- Cake washing was slow.

### Iron and Aluminum Precipitation

Aluminum and iron were effectively removed from solution at 80°C and pH 4.5, with less than 2% lithium co-precipitated. Potassium was also precipitated suggesting jarosite and alunite were being formed.

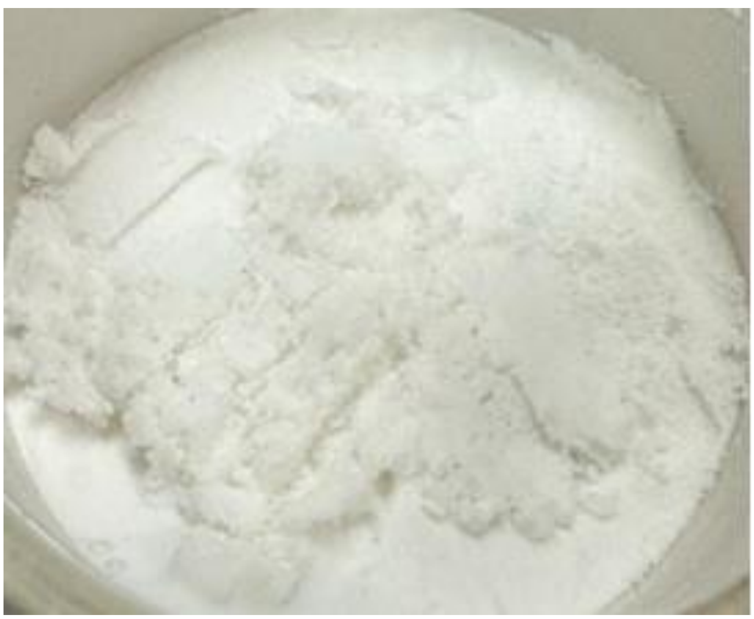
## 13.5 Lithium Carbonate Production

A bulk leach solution was processed to generate lithium carbonate. A six-step process was evaluated for upgrading, solution purification and carbonate precipitation.

- Bulk evaporation,
- Magnesium sulphate crystallization,
- Magnesium polishing precipitation using lime,
- Calcium removal using sodium carbonate,
- Solution polishing with ion exchange and
- Lithium carbonate precipitation with sodium carbonate.

Based on the impurity assays the product (Figure 13-6) was estimated to be about 99.2% lithium carbonate and would require further processing to remove sodium and potassium sulphate.

**Figure 13-6: Summary - Lithium Carbonate Precipitate**



### 13.5.1 Sample Representativeness

## 13.6 Metallurgical Composite Samples

Several samples have been composited from the available drill core for use in the test work. These are be summarized in Table 13-2. The initial samples were grade composites generated from assay rejects and were milled, and the latest samples were more spatial samples representing specific lithology and location. These samples were prepared directly from drill core, so any coarse material was still intact.

**Table 13-2: Met Testwork Composites**

| Composite Name | Composite Mass (kg) | No. of Interval Samples | No. of Holes Represented |
|---|---|---|---|
| 900 ppm Li composite | 201 | 162 | 21 |
| 1050 ppm Li composite | 201 | 146 | 20 |
| 1200 ppm Li composite | 151 | 110 | 18 |
| Olive Green 1 | 5.2 | 2 | 1 |
| Olive Green 2 | 24.5 | 7 | 1 |
| Olive Green 3 | 17.2 | 6 | 1 |
| Olive Green 4 | 10.9 | 4 | 1 |
| Blue 1 | 12.8 | 5 | 2 |
| Blue 2 | 12.7 | 4 | 1 |
| Black 1 | 8.0 | 3 | 1 |
| Black 2 | 6.4 | 3 | 1 |
| Black 3 | 25.2 | 7 | 1 |

# 14 Mineral Resource Estimate

The Mineral Resource Estimation (MRE) for the Zeus deposit was completed by Big Rock Exploration. The MRE has been reviewed by Bart Stryhas of SRK Consulting (U.S.) who is a qualified person.

## 14.1 Drillhole Database

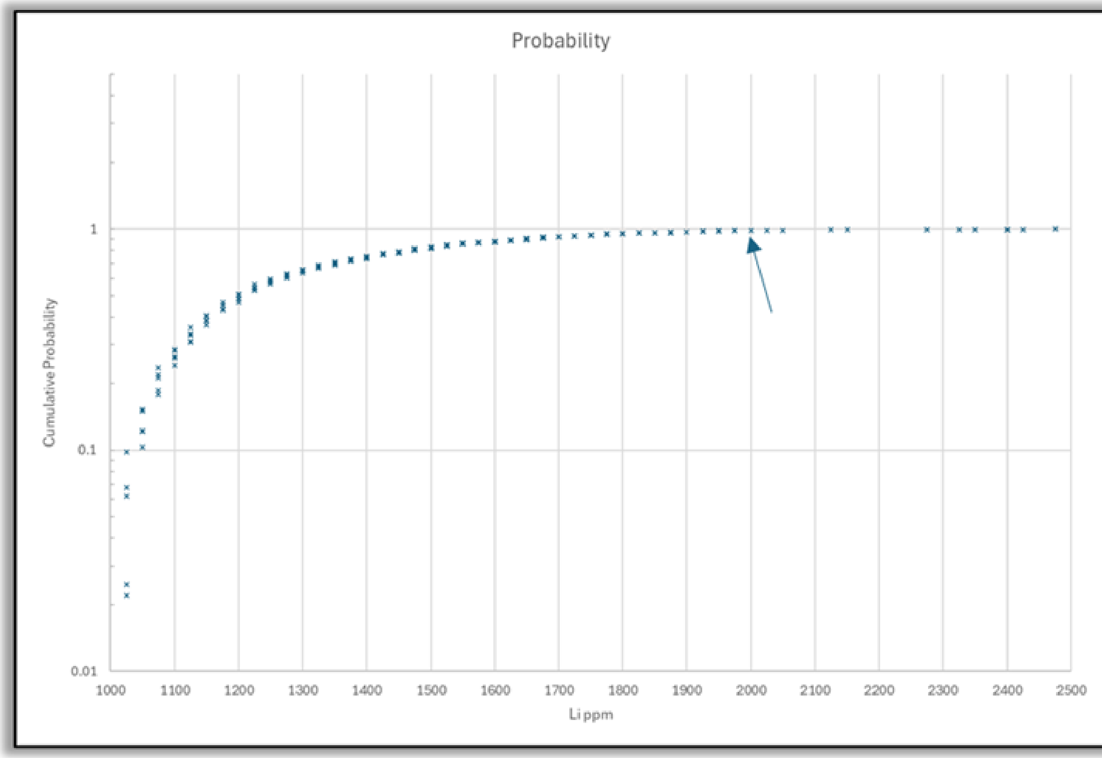
Collar coordinates for all 92 drillholes were compiled and their elevation values adjusted slightly to lie on the topographic surface. Plotted collar coordinates were checked against aerial imagery to verify their location

Assay data for the Mineral Resource Estimate update was compiled from 89 of the 92 diamond drillholes discussed in Section 10. Three of these holes do not penetrate through the Quaternary alluvium and so were not sampled. There are a total of 3,374 individual assays in the assayed 89 holes, with an average sample length of 1.71 meters.

## 14.2 Assay Capping and Compositing

The raw assays were plotted on a cumulative probability plot (Figure 14-1), as well as a histogram of assays above 1000 ppm to determine where the dataset becomes discontinuous. From these plots, it was determined that the dataset should be capped at 2000 ppm, which resulted in a total loss of lithium content of approximately 0.11%.

**Figure 14-1 Cumulative Probability Plot of the Raw Assay Database with Capping Threshold at 2000 ppm Lithium**




Sources: BRE 2024

### 14.2.1 Compositing

After the raw assays were capped, they were composited to 3 meters. The proposed mining method allows for vertically selective mining, so a composite of 3 meters was deemed appropriate. The compositing resulted in a total of 1,981 composites with an average length of 2.93 meters

## 14.3 Density

For the 2017 maiden resource estimate (Peek & Spanjers, 2017), 20 randomly selected pulps from core samples were submitted to ALS Reno for gas displacement pycnometry testing which determined a density of the dried and pulverized material of 2.66 g/cm$^3$. This value is accurate but does not account for pore space in the bulk material, water contained within the pore spaces, or crystallographic water that is driven off during the preparation of samples for assay. During the Phase V drill program, 19 core samples were submitted to ALS Reno for bulk density testing utilizing wax coated core and water displacement to determine specific gravity. This testing resulted in an average density value of 1.87 g/cm$^3$ for the entire Esmeralda formation (lithium host unit). This value is determined to be too high for resource estimation, as it does not account for the saturated nature of the clays that host the lithium mineralization, and therefore does not correspond to the concentrations reported in the lithium assays which are dried out in an oven before analysis. This value is appropriate for estimating in situ bulk density when determining tonnages for mining purposes but should not be used in conjunction with the lithium assays or composites for resource estimation without adjusting for moisture content.

During the Phase VII drill program, 167 whole core samples were measured for density through water displacement as part of the geologic core logging and sampling process. The core samples were measured for density shortly after being drilled, and therefore remained saturated during this process. The average density of those samples was 1.88 g/cm$^3$, which corresponds with the 1.87 g/cm$^3$ value obtained during previous test work.

Moisture content was then applied by lithologic unit to the 167 samples for which saturated bulk densities were obtained during the logging process to determine an average density of each lithology unit. Those density values are shown in Figure 14-1. These average density values are what is used in this updated mineral resource estimate. Density values for unmineralized units with no moisture content data have been estimated.

Of the 167 samples tested during the logging process, 32 were sealed to preserve moisture and sent to Blue Coast Research in Parksville, British Columbia for further analysis to determine moisture content by tracking mass changes over time in a drying environment with conditions identical to the kiln used to dry samples at ALS (105°C). Results from this testing showed that on average the samples contained 24.72% moisture by mass. These results are displayed by lithologic unit in Figure 14-1. Only samples from mineralized lithologic units were sent for this analysis. Moisture content of unmineralized units remains undetermined at this time.

**Table 14-1: Density by Lithologic Unit**

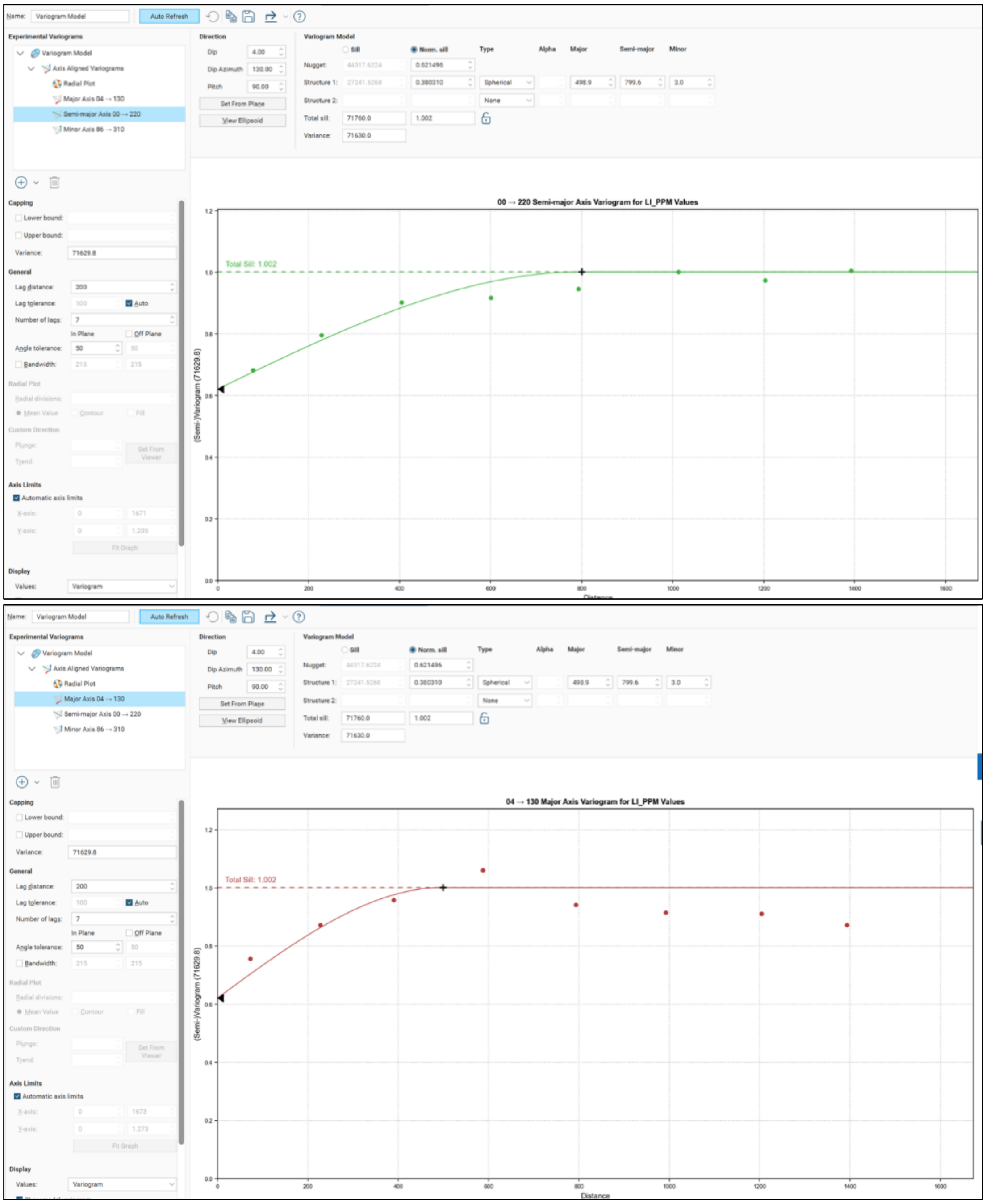
| Unit | Number of Samples | In Situ Density | Percent Moisture | Dry Density |
|---|---|---|---|---|
| Qu | 0 | 1.8* | 25%* | 1.350* |
| Tegd | 0 | 1.9* | 25%* | 1.425* |
| Teu | 30 | 1.835 | 24.92% | 1.378 |
| Tem | 37 | 1.845 | 27.20% | 1.343 |
| Tel | 67 | 1.921 | 23.76% | 1.464 |
| Tlt | 33 | 1.892 | 21.95% | 1.477 |
| Ttb | 0 | 1.9* | 25%* | 1.425* |
| **Total** | **167** | **1.88** | **24.72%** | **1.425** |

Source: BRE 2024
Note: *Values are estimated

## 14.4 Variogram Analysis and Modeling

Variography was completed in each of the estimation domains described below. Overall, the variogram structures within each unique estimation domain are not well developed. Variograms completed internal to the Middle Member of the Esmeralda Formation do show good experimental structure and can be fit with reliable variogram models. Figure 14-2 shows the along strike and down dip variogram from 3m capped composites located in the Middle Esmeralda Formation.

**Figure 14-2: Along Strike and Down Dip Variograms**




Sources: BRE 2024

Notes: 3m Comps from Middle Esmeralda Fm

## 14.5 Block Model

A block model was constructed using Seequent's Leapfrog Edge for this Resource Estimate update. It has an origin at the UTM coordinate 456000.00E, 4176800.00N, 1450.00 and is rotated about the Z-axis 45 degrees. There is no dip or pitch to the model. It uses blocks that are 6 meters wide, 6 meters long, and 3 meters high. This block size was chosen as the proposed mining method is capable of a relatively small selective mining unit. The smaller block size also allows for grade variability evident in the assay and composite databases to be maintained during the estimation process rather than being overly diluted by a larger block size. The model is 875 blocks by 867 blocks in the X and Y axis respectively, and 134 blocks in the Z axis. Variography was performed upon each of the domains individually, with the variogram model verified in three-dimensional space to ensure that its shape and orientations are reasonable geologically. Domains used hard boundaries, and composites from one domain are excluded from use in any other domain.

## 14.6 Topography

A 1-meter resolution LIDAR surface was generated during the geological mapping work discussed in Section 7. This file was imported to Leapfrog to use as a topography, however due to the large computing power required to use this surface for three-dimensional modeling, it was smoothed out to 20-meter resolution during import to match the surface resolution of the geological model.

## 14.7 Estimation Methodology

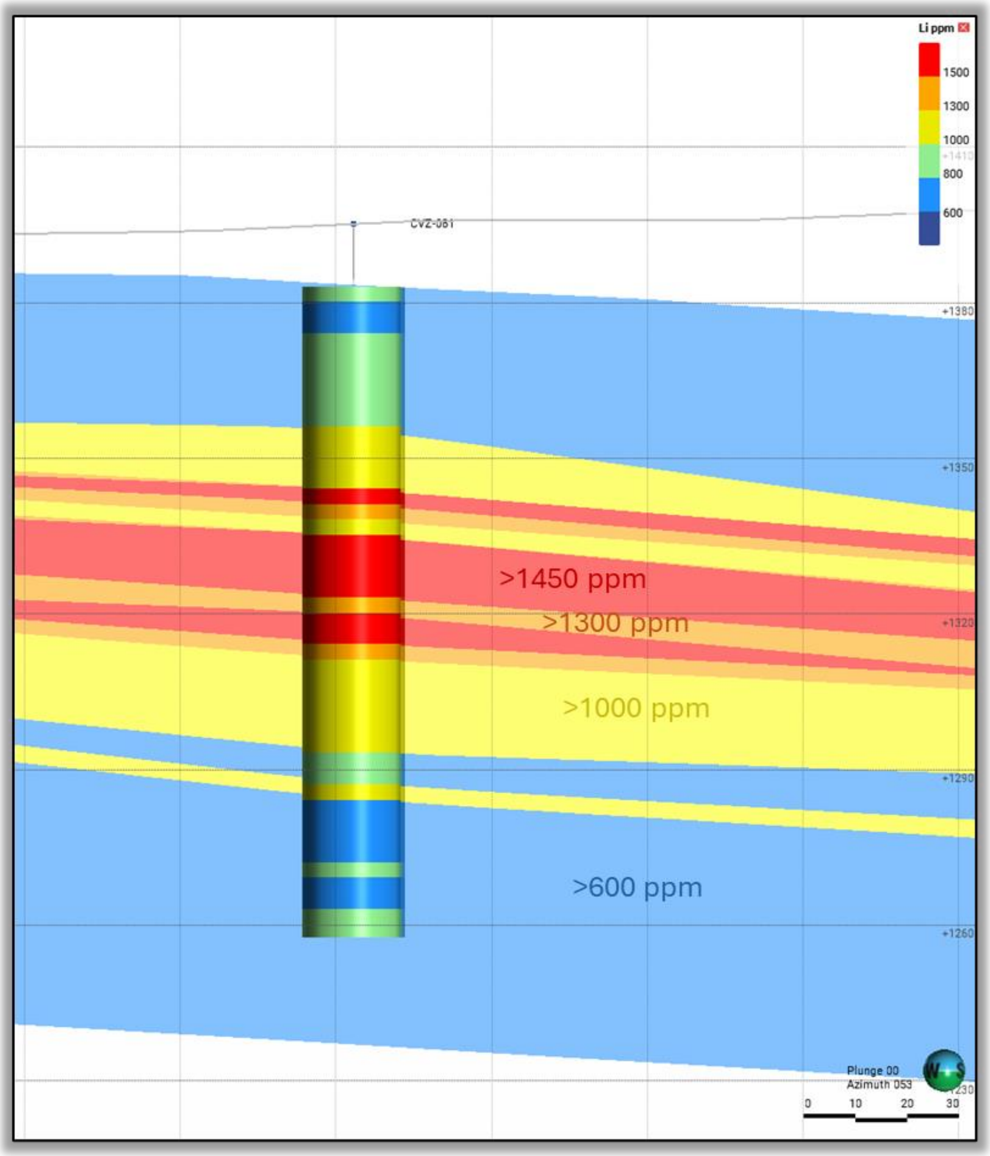
Using the composited assay database, six grade domains were built to contain laterally continuous and stratiform horizons of similar lithium concentrations using Seequent's Leapfrog Geo V2023.1 software. The orientations of these domains honored the geological model, with the highest-grade domains being contained entirely within the Tem lithologic unit. The domains were built using a nested approach, where grade shells of lower lithium concentration encapsulate the grade shells of higher concentrations. Composites contained within the inner shell are excluded from the outer shell via a hard boundary and vice versa.

There were two sets of domains built for this Resource Estimate update. These correspond to the major orientations of the stratigraphy on opposite sides of the anticline running sub-parallel to the Paymaster Fault, where the stratigraphy and corresponding domains on the southeast side of the anticline dip uniformly gently to the southeast, and the stratigraphy and domains on the northwest side of the anticline dip variably to the northwest. All domains are truncated by either the topographic surface, the contact with Quaternary alluvium (Qu), or the claim boundary. In some areas the two sets of domains come together (on or near the anticlinal hinge), and in these scenarios the domains on the northwest side of the anticline are truncated against the domains on the southeast side.

On the southeast side of the anticline lies the majority of the drillhole data, as well as the thickest and highest-grade lithium intercepts. Four estimation domains were built in this area at lithium grade cutoffs of 1450 ppm, 1300 ppm, 1000 ppm, and 600 ppm (Figure 14-3).

Each domain utilizes a variable orientation search, which uses the geological model as a reference to adjust the variogram model for each individual block to account for folded stratigraphy. Each domain was estimated with a total of three passes of ordinary kriging, with the 1st pass being most restrictive and the 3rd pass being least restrictive. A summary of the parameters for all three passes for each domain can be seen in Table 14-2.

**Figure 14-3: Example Cross Section View of Estimation Domains**




Sources: BRE 2024

Notes: SE side of Anticline and 3m Comps.

**Table 14-2: Estimation Parameters by Domain and Pass**

| Domain | Pass | Minimum Samples | Maximum Samples | Outlier Restrictions* | Sector Search | Samples per Drillhole Limit | Major Axis Search Radius (m) | Intermediate Axis Search Radius (m) | Minor Axis Search Radius (m) |
|---|---|---|---|---|---|---|---|---|---|
| SE 1450 | 1 | 6 | 16 | 85% | Octant | 2 | 465 | 408 | 6 |
| | 2 | 6 | 16 | 85% | Quadrant | 2 | 775 | 680 | 12 |
| | 3 | 4 | 16 | 85% | None | 2 | 1550 | 1360 | 24 |
| SE 1300 | 1 | 6 | 16 | - | Octant | 2 | 1050 | 595 | 6 |
| | 2 | 6 | 16 | - | Quadrant | 2 | 1500 | 850 | 10 |
| | 3 | 4 | 16 | - | None | 2 | 3000 | 1700 | 20 |
| SE 1000 | 1 | 6 | 16 | - | Octant | 2 | 630 | 168 | 12 |
| | 2 | 6 | 16 | 85% | Quadrant | 2 | 1050 | 280 | 20 |
| | 3 | 4 | 16 | 85% | None | 2 | 2100 | 560 | 40 |
| SE 600 | 1 | 6 | 16 | - | Octant | 2 | 765 | 405 | 18 |
| | 2 | 6 | 16 | - | Quadrant | 2 | 1275 | 675 | 29 |
| | 3 | 4 | 16 | - | None | 2 | 2550 | 1350 | 58 |
| NW 1000 | 1 | 6 | 16 | - | Quadrant | 2 | 675 | 525 | 9 |
| | 2 | 6 | 16 | - | None | 2 | 900 | 700 | 15 |
| | 3 | 4 | 16 | - | None | 2 | 1800 | 1400 | 30 |
| NW 600 | 1 | 6 | 16 | - | None | 2 | 450 | 281.25 | 9 |
| | 2 | 6 | 16 | - | None | 2 | 600 | 375 | 15 |
| | 3 | 4 | 16 | - | None | 2 | 1200 | 750 | 30 |

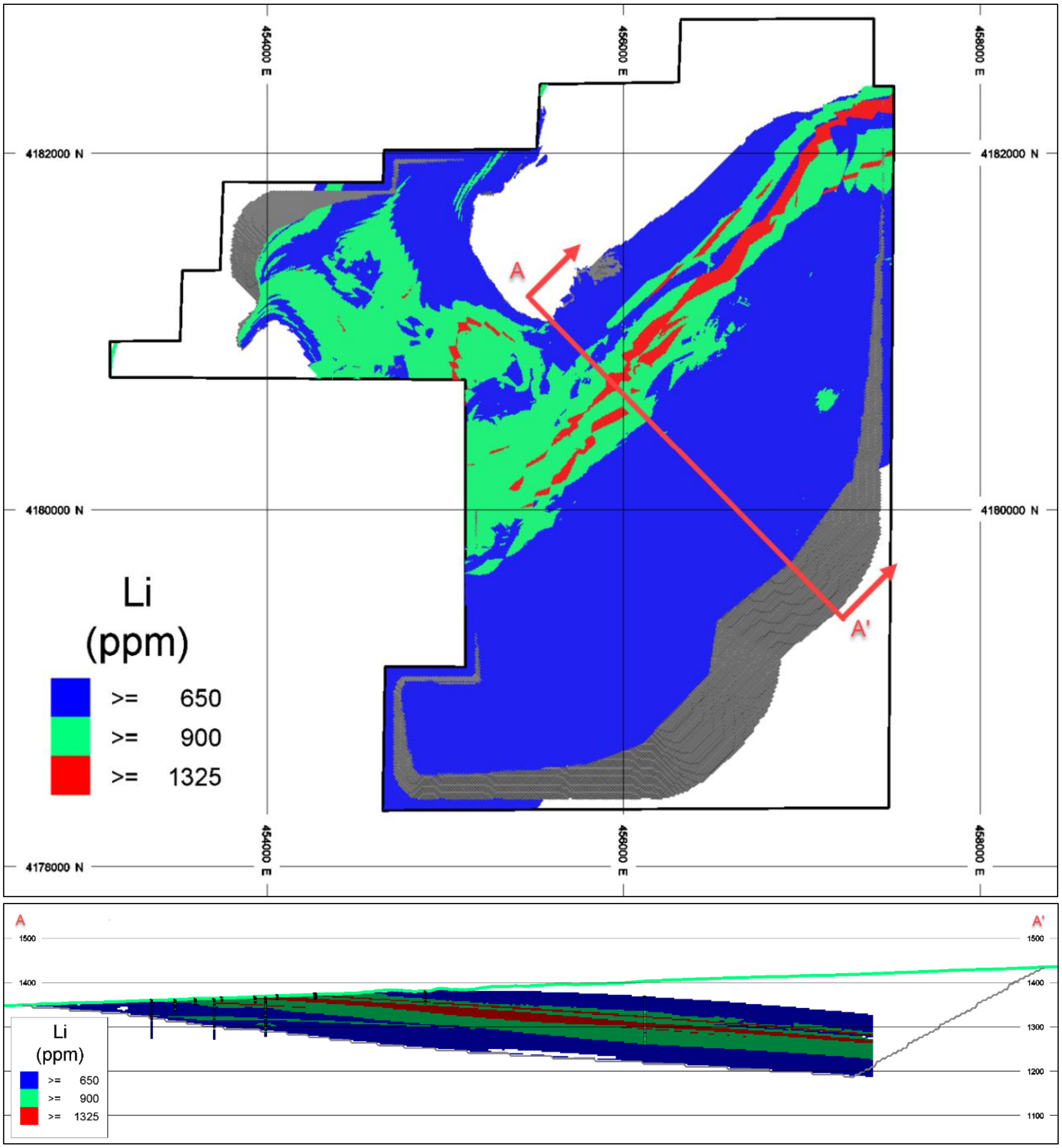
Note: *Composites beyond this percentage of the search distance are clamped to the domain mean lithium concentration.

## 14.8 Model Validation

### 14.8.1 Visual Comparison

Figure 14-4 shows an example of a visual validation cross section showing the block model grades compared to the 3m composites.

**Figure 14-4: Example Cross Section View of Estimation Domains**




Sources: SRK 2024

### 14.8.2 Comparative Statistics

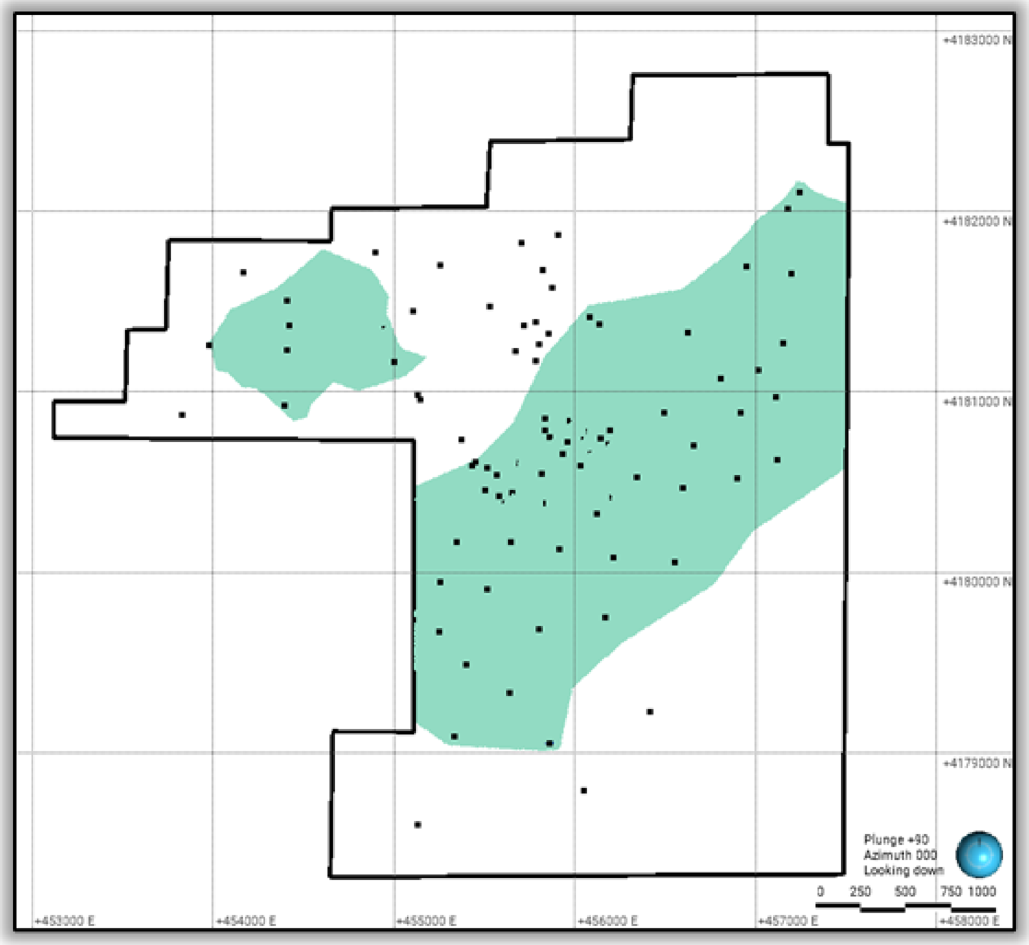
**Table 14-3: Statistics of Lithium Composites and Blocks**

| | Min | Q1 | Median | Q3 | Max | Mean | Std Dev | # of Samples |
|---|---|---|---|---|---|---|---|---|
| **Composites** | 293 | 774 | 943 | 1127 | 2000 | **976** | 285.00 | 1,649 |
| **Blocks** | 473 | 765 | 853 | 1069 | 1868 | **920** | 227.28 | 8,865,798 |

## 14.9 Resource Classification

Indicated Resources at Zeus were determined by constructing a volume around the blocks predominantly estimated by the first 2 estimation passes, which search at a range up to 100% of the variogram model for each domain and require at a minimum 2 samples from 3 drillholes to estimate (minimum of 6 samples). The indicated portion of the Zeus deposit contains the highest drillhole density. This portion of the deposit has experienced adequately detailed and reliable exploration, sampling, and testing to assume geological and grade continuity to be deemed an Indicated Resource. A plan view of the Indicated Mineral Resources is shown in Figure 14-5.

**Figure 14-5 Plan View of the Indicated Resources**




Sources: BRE 2024
Notes: Green Outline.

All estimated resources outside of the Indicated outline are classified as Inferred Mineral Resources. Note, all Inferred Mineral Resources are located less than 500m from drilling.

## 14.10 Mineral Resource Statement

### Table 14-4 Zeus Mineral Resource Estimate as of May 15, 2024 – SRK Consulting (U.S.), Inc.

| ZONE | Classification | Mass dry (Mt) | Contained Li grade (ppm) | Contained Li mass (kt) | Contained LCE mass (kt) |
|---|---|---|---|---|---|
| Total | Measured | 0 | 0 | 0 | 0 |
| | Indicated | 586 | 957 | 561 | 2,987 |
| | **Measured and Indicated** | **586** | **957** | **561** | **2,987** |
| | Inferred | 300 | 861 | 258 | 1,375 |
| High Grade Core | Measured | 0 | 0 | 0 | 0 |
| | Indicated | 166 | 1,121 | 186 | 989 |
| | **Measured and Indicated** | **166** | **1,121** | **186** | **989** |
| | Inferred | 2 | 1,102 | 2 | 9 |
| Peripheral Halo | Measured | 0 | 0 | 0 | 0 |
| | Indicated | 421 | 893 | 375 | 1,998 |
| | **Measured and Indicated** | **421** | **893** | **375** | **1,998** |
| | Inferred | 299 | 859 | 257 | 1,366 |

Sources: BRE and SRK 2024

Notes: *Resources are contained within a potentially economically minable open pit. Open pit optimization was based on an assumed lithium carbonate equivalent sales price of US$24,000/t (versus long term price forecast of US$30,000/t), process recovery of lithium of 85%, mining costs of US$1.70/wet tonne, processing cost of US$51.52/dry tonne, G&A cost of US$1.00/wet tonne and downstream costs of US$90/dry tonne of refined lithium carbonate. Pit slopes were assumed to be 30°. Average moisture content of the mineralized claystone material at Zeus was measured to be 25%. Lithium Carbonate Equivalent ("LCE") was calculated suing 5.323 tonnes LCE per tonne of lithium.

As of May 2014, the CIM Standing Committee on Reserve Definitions has defined a Mineral Resource as: A concentration or occurrence of solid material of economic interest in or on the earth's crust in such form, grade or quality and quantity that there are reasonable prospects for eventual economic extraction. The location, quantity, grade or quality, continuity and other geological characteristics of a Mineral Resource are known, estimated or interpreted from specific geological evidence and knowledge, including sampling. **Mineral Resources are not Mineral Reserves and do not have demonstrated economic viability.**

## 14.11 Mineral Resource Sensitivity

The Indicated Mineral Resource sensitivity to cut off grade is listed in Table 14-5 and Figure 14-6.

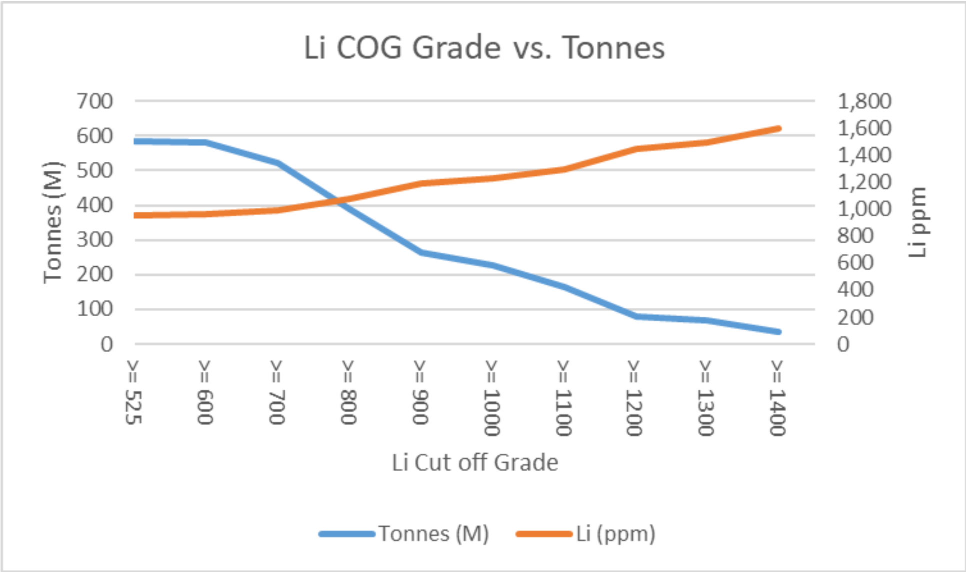
**Table 14-5 Zeus Mineral Resource Sensitivity**

| Li COG (ppm) | Tonnes (M) | Li (ppm) | Li Tonnes (k) |
|---|---|---|---|
| >= 525 | 586 | 957 | 561 |
| >= 600 | 581 | 960 | 558 |
| >= 700 | 521 | 995 | 519 |
| >= 800 | 388 | 1077 | 418 |
| >= 900 | 262 | 1189 | 312 |
| >= 1000 | 227 | 1229 | 279 |
| >= 1100 | 163 | 1292 | 211 |
| >= 1200 | 79 | 1451 | 115 |
| >= 1300 | 67 | 1490 | 100 |
| >= 1400 | 36 | 1596 | 57 |

Sources: BRE and SRK 2024

Notes: *Resources are contained within a potentially economically minable open pit. **Mineral Resources are not Mineral Reserves and do not have demonstrated economic viability.**

**Figure 14-6 Zeus Mineral Resource Sensitivity**




Sources: BRE & SRK 2024

Notes: *Resources are contained within a potentially economically minable open pit. **Mineral Resources are not Mineral Reserves and do not have demonstrated economic viability.**

The high grade core zone was further analyzed as shown in Table 14-6.

**Table 14-6: Zeus High Grade Core Indicated Resources**

| Material | Grade (ppm Li) | Tonnes (Mt) | Grade (ppm Li) |
|---|---|---|---|
| High-Grade | >1,325 | 54 | 1,496 |
| Medium Grade | 900-1,325 | 49 | 1,108 |
| Low Grade | <900 | 64 | 814 |
| **Total** | | **166** | **1,121** |

## 14.12 Relevant Factors

There are no relevant environmental, permitting, legal, title, taxation marketing or other factors that could affect resources

# 15 Mineral Reserve Estimate

Mineral Reserves were not prepared as part of this Mineral Resource Estimate.

# 16 Mining Methods

Mining methods were not prepared as part of this Mineral Resource Estimate.

# 17 Recovery Methods

Recovery methods were not prepared as part of this Mineral Resource Estimate.

# 18 Project Infrastructure

Project infrastructure was not prepared as part of this Mineral Resource Estimate.

# 19 Market Studies and Contracts

## 19.1 Supply

Lithium supply in 2022 was 706k tonnes Lithium Carbonate Equivalent (LCE). Of the supply, 52% was derived from spodumene concentrate refining and 48% from brine operations. Geographically, Australian production represented 39% of the supply with Chilean/Argentina production at 45% and China producing 8.1%. The United States produced only 10k tonnes LCE in 2022 or 1.4% of the total supply.

For 2023, the forecast LCE production is expected to increase to 861k tonnes LCE (estimated at September 2023) and subsequently increase further to 1,180k tonnes LCE for 2024 on the back of production ramp up at existing facilities, expansions and new production being brought online. The represents a 25% year over year increase in supply from 2023 to 2024.

Global lithium supply has come in distinct waves:

1. Low cost brine production in the Lithium Triangle – Chile/Argentina.
2. Hard-rock mining of spodumene in Australia.
3. Hard-rock mining of lepidolite in China.
4. Hard-rock, brine, clay extraction of lithium in Canada and the USA as nearshoring of the EV supply chain is largely a response to increased lithium protectionism.

Lithium supply is shown in Table 19-1.

**Table 19-1: Lithium Supply Actual to 2022 and Estimated to 2027**

Lithium Supply Forecast by Country/Resource Type (k mt LCE)

| Production | '17 | '18 | '19 | '20 | '21 | '22 | '23E | '24E | '25E | '26E | '27E |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Australia | 86 | 110 | 132 | 174 | 190 | 275 | 336 | 444 | 511 | 540 | 648 |
| Argentina | 12 | 35 | 34 | 32 | 43 | 72 | 112 | 167 | 218 | 285 | 288 |
| Brazil | 3 | 5 | 13 | 14 | 18 | 24 | 37 | 76 | 87 | 94 | 94 |
| Canada | 0 | 0 | 0 | 0 | 0 | 0 | 95 | 95 | 113 | 180 | 189 |
| Chile | 80 | 91 | 110 | 147 | 183 | 249 | 282 | 291 | 318 | 320 | 344 |
| China | 0 | 6 | 7 | 25 | 50 | 57 | 57 | 57 | 63 | 70 | 70 |
| USA | 0 | 0 | 0 | 2 | 4 | 10 | 10 | 10 | 50 | 50 | 50 |
| Other | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | **181** | **246** | **295** | **397** | **496** | **705** | **951** | **1,184** | **1,409** | **1,642** | **1,797** |

| Production | '17 | '18 | '19 | '20 | '21 | '22 | '23E | '24E | '25E | '26E | '27E |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Spodumene | 89 | 124 | 172 | 234 | 263 | 368 | 537 | 702 | 803 | 866 | 983 |
| Brine | 92 | 122 | 124 | 162 | 233 | 337 | 409 | 473 | 557 | 631 | 658 |
| Clay | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 40 | 40 | 40 |
| Other | 0 | 0 | 0 | 0 | 0 | 0 | 5 | 9 | 9 | 105 | 117 |
| | **181** | **246** | **295** | **397** | **496** | **705** | **951** | **1,184** | **1,409** | **1,642** | **1,797** |

Source: Scotiabank GBM

## 19.2 Demand

Demand is forecasted to increase from electrification of the transportation sector and stationary storage supported by government policy in the EU, North America, and Asia. Sales of passenger and light duty electric vehicles are expected to increase from 5.8 million in 2021 to over 15 million in 2025 (approximately 15% of total vehicles sold). By 2030, approximately 31% of all passenger vehicles sold are forecasted to be electric.

Demand is forecast to increase to 900k tonnes LCE in 2024 and 1,150k tonnes LCE in 2025. As base demand grows and matures, coupled with improvements in battery technology, it is expected that growth rates will decelerate over time. For 2024 and 2025, demand forecast is expected to be fully met from supply estimates. However, demand growth is expected to exceed supply forecasts by 2027 and depending on delays to new supply, a tight market is likely to develop between 2026 and 2030.

A lithium demand forecast is shown in Figure 19-1 and Figure 19-2.

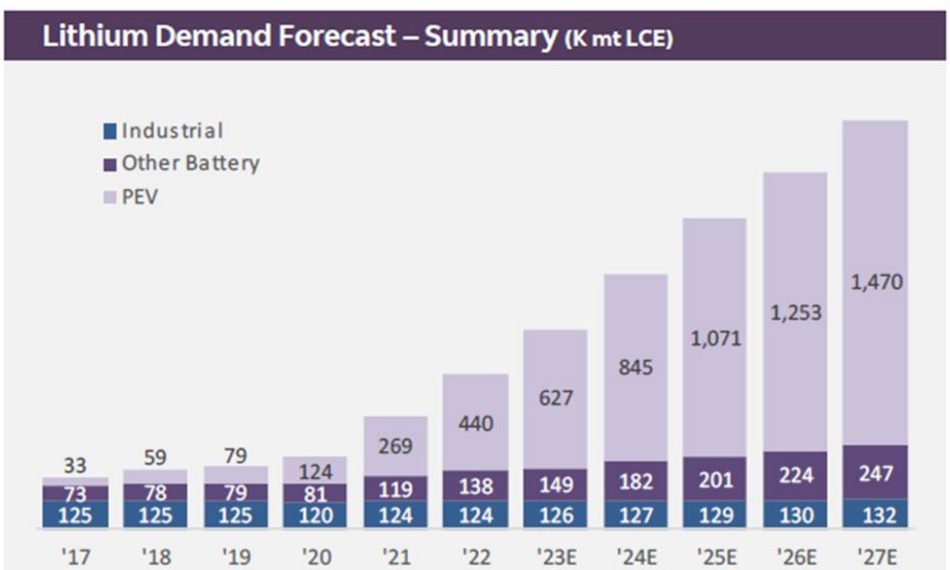
**Figure 19-1: Lithium Demand – Actual to 2022 and Forecast to 2030**

Lithium Demand Forecast – Detailed (K mt LCE)

| LCE Demand (000 mt) | '17 | '18 | '19 | '20 | '21 | '22 | '23E | '24E | '25E | '26E | '27E | '28E | '29E | '30E |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Passenger EVs | 32.6 | 59.2 | 78.9 | 123.9 | 269.0 | 439.5 | 627.2 | 844.9 | 1,071.1 | 1,253.4 | 1,470.2 | 1,769.5 | 2,134.2 | 2,579.3 |
| Electronics | 49.9 | 49.6 | 50.7 | 50.2 | 63.6 | 65.4 | 61.3 | 65.3 | 67.6 | 70.1 | 74.3 | 77.0 | 79.7 | 82.6 |
| Energy storage | 3.0 | 6.6 | 5.2 | 9.0 | 20.1 | 37.1 | 52.2 | 68.2 | 73.3 | 78.8 | 87.7 | 94.3 | 101.3 | 108.9 |
| Electric bikes | 6.0 | 6.7 | 7.2 | 8.0 | 9.2 | 9.5 | 9.9 | 10.3 | 10.7 | 11.0 | 11.2 | 11.6 | 12.0 | 12.4 |
| Other batteries | 14.3 | 15.3 | 15.8 | 13.5 | 26.5 | 26.3 | 25.8 | 37.8 | 49.1 | 63.9 | 74.0 | 81.4 | 89.5 | 98.5 |
| Total battery | 105.8 | 137.4 | 157.9 | 204.6 | 388.4 | 577.8 | 776.5 | 1,026.5 | 1,271.8 | 1,477.2 | 1,717.4 | 2,033.7 | 2,416.8 | 2,881.7 |
| Glass and ceramics | 46.0 | 46.4 | 47.4 | 47.2 | 47.5 | 47.7 | 47.8 | 47.9 | 48.1 | 48.3 | 48.4 | 48.6 | 48.8 | 48.9 |
| Lubricants and grease | 22.0 | 21.8 | 20.7 | 17.4 | 19.8 | 19.1 | 19.8 | 20.4 | 20.9 | 21.4 | 21.9 | 22.5 | 23.0 | 23.6 |
| Catalysts | 7.2 | 7.3 | 7.4 | 7.1 | 7.5 | 7.8 | 8.0 | 8.3 | 8.5 | 8.8 | 9.1 | 9.4 | 9.8 | 10.1 |
| Other industrial | 49.7 | 49.9 | 50.0 | 48.4 | 49.2 | 49.7 | 50.1 | 50.6 | 51.1 | 51.7 | 52.3 | 52.8 | 53.4 | 54.0 |
| Total industrial | 124.8 | 125.4 | 125.4 | 120.1 | 124.1 | 124.3 | 125.8 | 127.2 | 128.6 | 130.2 | 131.7 | 133.3 | 135.0 | 136.6 |
| | **231** | **263** | **283** | **325** | **512** | **702** | **902** | **1,154** | **1,400** | **1,607** | **1,849** | **2,167** | **2,552** | **3,018** |
| *Change YOY (%)* | *10%* | *14%* | *8%* | *15%* | *58%* | *37%* | *29%* | *28%* | *21%* | *15%* | *15%* | *17%* | *18%* | *18%* |

Source: Scotiabank GBM

**Figure 19-2: Lithium Demand Ramp-up 2017-2027 Estimated**




Source: Benchmark Mineral Intelligence, 2021

## 19.3 Pricing Forecast

Lithium carbonate prices are expected to remain choppy in the near-term with a downward bias as the market is in a supply surplus. However, longer term, both spot and contract prices are expected to continue to rise as demand outpaces supply, with not enough additional tonnage available to ease market tightness.

In addition, unprecedented market demand combined with lack of supply is expected to support pricing required to incentivize capital-intensive greenfield projects. Further, pressure from customers to incorporate carbon-neutral and sustainable technologies will further increase capital and operational costs that will be reflected in pricing.

Lithium carbonate is expected to average US$30,000/tonne LCE long term (2027 onwards) for sales in Asia and US$27,500/tonne LCE for sales in North America, as shown in Table 19-2.

**Table 19-2: Lithium Carbonate Pricing – Actual to 2022 and Forecast to 2027 and Long-term**

Scotiabank GBM Lithium Price Deck

| Lithium Carbonate | | '21 | '22 | '23E | '24E | '25E | '26E | '27E | L/T |
|---|---|---|---|---|---|---|---|---|---|
| Asia (>99.2%) | (CIF; $/mt) | 12,351 | 47,615 | 51,840 | 45,000 | 40,000 | 35,000 | 30,000 | 30,000 |
| South America (99.5% FOB) | (FOB; $/mt) | 9,883 | 43,458 | 49,859 | 39,000 | 34,500 | 30,500 | 26,000 | 26,000 |
| North America (99.5%) | (CIF; $/mt) | 10,970 | 44,875 | 52,104 | 41,000 | 36,500 | 32,000 | 27,500 | 27,500 |
| Europe (99.5%) | (CIF; $/mt) | 10,718 | 45,010 | 51,089 | 39,500 | 35,000 | 31,000 | 26,500 | 26,500 |

Source: Scotiabank GBM

## 19.4 Pricing Forecast for this Study

Base case lithium carbonate pricing is simplified as a fixed US$24,000 per tonne, while long-term price forecast of Scotiabank GBM as of September 2023 indicate this price assumption could be considered conservative based on supply/demand forecasts.

# 20 Environmental Studies, Permitting, and Social or Community Impact

All exploration activities completed at the Zeus Project site to-date have been completed under a series of Notice of Intent approvals from the Bureau of Land Management ("BLM"). Reclamation of the disturbances from drilling operations have been subject to continuous reclamation under the guidance of the BLM. In the second half of 2023, the Company began working on furthering permitting of the Zeus Project.

## 20.1 Exploration Plan of Operations

Noram submitted a letter to BLM on September 7th, 2023, indicating Noram's intent to pursue an Exploration Plan of Operations. The letter submitted to BLM identified that data collection efforts necessary to complete a PFS would require more than five (5) acres of disturbance and therefore, an Exploration Plan of Operations would be required. Data collection programs included in the letter were: resource drilling, geotechnical drilling, test pitting, bulk sampling, monitor well installation, and air monitoring equipment installation. Noram's request was reviewed at BLM's November 7th Project Manager's Meeting where it was identified that BLM is required to take up the request as the project is a critical minerals project.

In February 2024, the BLM hosted Company representatives and conducted a workshop to complete a Base Needs Assessment for the Exploration Plan of Operations. Gathering the information identified in the Baseline Needs Assessment meeting is a precursor to submitting the Plan of Operations for review and approval.

## 20.2 Environmental Baseline Programs

In accordance with the Baseline Needs Assessment, Noram has begun an initial environmental characterization of the claim block which has consisted of desktop hydrogeologic characterization, a small mammal survey, completion of a cultural resource survey, two rounds of burrowing owl and raptor surveys.

- The hydrogeologic characterization of the claim block took place in summer of 2023 and was conducted by WSP. The focus of the study was identifying potential water sources at depth. This work aggregated multiple data sets including previous geophysical surveys, local groundwater well data, and drill log data. The results indicated there was very little chance of a deep-water source within the claim block.
- A small mammal survey was completed in late October of 2023 by Stantec. This survey focused on identifying whether Kangaroo Mice inhabited the claim block. The survey was conducted over four consecutive nights and no Kangaroo Mice were captured.
- A cultural survey took place during the months of September and October of 2023 that covered the entire claim block. This work was completed by Kautz Environmental and a member of the Timbisha

Shoshone Tribe. The survey resulted in the identification of ninety-three (93) artifacts being identified but nothing that rose to a level of significance.

- Initial burrowing owl and raptor surveys took place in late March and early May of 2024. No burrowing owls or raptor presence was identified within the project area.
- In anticipation of a preliminary material characterization program, Noram requested and received approval for modified program requirements from Nevada Department of Environmental Protection in August of 2023. Work has not been initiated under the modified program but approval from the department is in place to do so.

Additional baseline work of importance to complete in the future includes:

- The installation of monitoring wells to further understand the hydrogeologic environment.
- Additional wildlife surveys (small mammal, vegetation, and raptor surveys).
- Installation and data collection from a meteorological station to understand local climate.
- Remaining characterization of resources and data gathering identified by the Baseline Needs Assessment

## 20.3 Water Appropriation

Installation of water production wells requires a water right issued by the Nevada Division of Water Resources ("NDWR"). Because Nevada is in an arid region, water usage is allocated among multiple users and rationed by the state in order to prevent depletion of the resource through overuse.

Noram developed two water rights applications that were submitted to the NWDR. These applications were originally filed on October 2nd, 2023, and later amended to include the survey maps that are required before review of the applications can be completed. The two applications both request an inter-basin transfer of 1,000 acre/ft annually from Alkali Springs Valley for use in Clayton Valley. The difference between the applications is that one is a permanent water right request, and one is a temporary water right request. The purpose of the dual submittal was to provide the State Engineer optionality in which they would prefer to approve. The applications were reviewed and subjected to a public forum review period. In early February 2024, the Company received notification that the County of Esmeralda had filed a protest against the Company's water rights applications. The Company is engaging with the County and its advisors to resolve any concerns with respect to the approval of the water rights applications.

## 20.4 General Permitting Considerations

### 20.4.1 Tailings Disposal

Disposal of tailings is regulated by the BLM under 43 Code of Federal Regulations (CFR) 3809, NEPA, the Nevada Division of Environmental Protection – Bureau of Mining Regulation and Reclamation (NDEP-BMRR) NAC 445A, Water Controls, and the NDWR as part of Dams and Other Obstructions, NAC 535.

The primary consideration for tailings disposal is the protection of surface water and groundwater resources and the prevention of degradation of Waters of the State of Nevada. The primary regulatory instrument for protecting these resources is the Water Pollution Control Permit, which is issued by the NDEP-BMRR. This permit adopts the design of an engineered facility for long-term containment of the tailings developed by the mine and approved by the state. The facility must specify measures for constructing the tailings facility and then characterizing, handling, placing, and monitoring tailings in a manner that is protective of water resources.

The other primary consideration for tailings disposal is the physical stability of the tailings impoundment. The facility must be designed with sufficient factors of safety to remain competent under pseudo-static seismic conditions. The design of any embankment requires the approval of the NDWR, which will inspect the facility annually. Impoundment of water by the embankment also requires a Nevada J-Permit with an associated annual fee based on the volume of water impounded.

### 20.4.2 Waste Rock Disposal

Disposal of waste rock is regulated by the BLM under 43 CFR 3809, NEPA, and the NDEP-BMRR under the Clean Water Act. The primary consideration for waste rock disposal is the protection of surface water and groundwater resources and the prevention of degradation of Waters of the State of Nevada. The primary regulatory instrument for protecting these resources is the Water Pollution Control Permit, which is issued by the NDEP-BMRR. This permit adopts a Waste Rock Management Plan developed by the mine and approved by the state. The Plan specifies measures for characterizing, handling, placing, covering, and monitoring waste rock in a manner that is protective of water resources.

### 20.4.3 Water Management

Management of water (i.e., pumping, storage, handling, and disposal) is regulated by the BLM under 43 CFR 3809, NEPA, the NDEP-BMRR under the Clean Water Act, and the NDWR via water rights adjudication. If the mine is not a zero-discharge facility and discharges water to the environment by design, the NDEP and the U.S. Environmental Protection Agency (EPA) would also regulate that discharge via the national pollutant discharge elimination system (NPDES).

A primary consideration for water management is the protection of surface water and groundwater resources and the prevention of degradation of Waters of the State of Nevada. The primary regulatory instrument for protecting these resources is the Water Pollution Control Permit, which is issued by the NDEP-BMRR. This permit adopts the design of an engineered water management system (including production wells, conveyance pipelines and channels, storage ponds, infiltration ponds, etc.) developed by the mine and approved by the state. The facility design must specify measures for handling, storing, and monitoring water in a manner that is protective of water resources.

## 20.5 Social and Community Considerations

The Zeus project is in early stages of development and has yet to assess the social impact it will have on local communities. Noram will work closely with authorities of Nevada to attain a mutually beneficial relationship between the company and the nearby communities and stakeholders.

# 21 Capital and Operating Costs

Capital and operating costs were not prepared as part of this Mineral Resource Estimate.

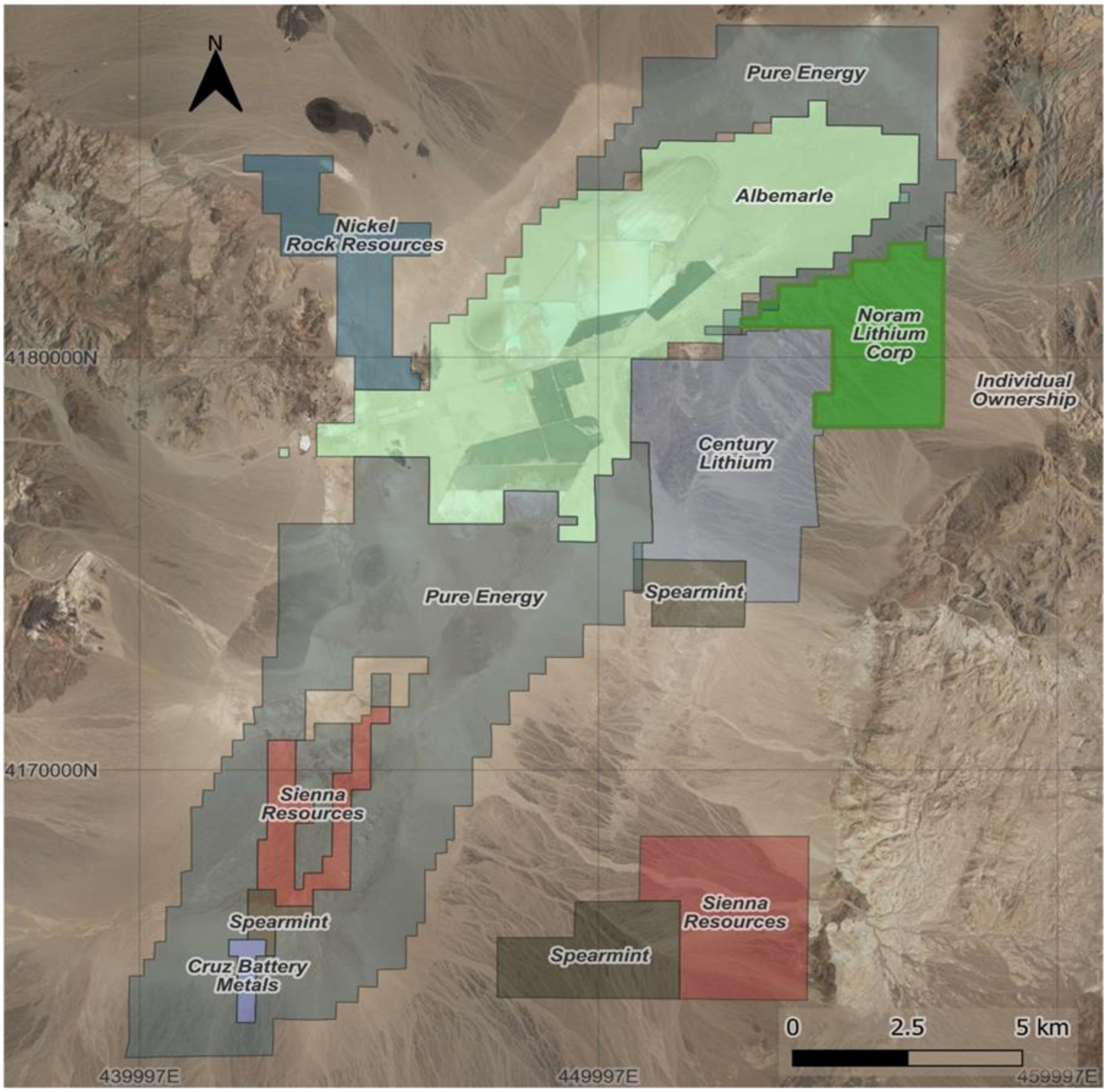
# 22 Economic Analysis

An economic analysis was not prepared as part of this Mineral Resource Estimate.

# 23 Adjacent Properties

Clayton Valley has become an area of intense interest for mining exploration companies in search for lithium, both in brines and lithium clays. Figure 23-1 shows the Noram Lithium Claims holdings and the adjacent properties; the map is a compilation of published mineral property maps in QGIS program from adjacent claimholder’s maps, published on various Websites, and with varying dates of publication. The main source was Pure Energy’s presentation, showing Zeus Li Project’s position relative to surrounding properties. Discrepancies were noted in some overlap of adjacent properties due to cartoon-presentation precision of data. The QP is not responsible for the exact location of these claims or anyone that relies on them. Property boundaries are subject to change over time. This map has been included as a visual aid only.

**Figure 23-1: Clayton Valley Claims Map**




## 23.1 Lithium in Brine

Albemarle's Silver Peak lithium brine operation is the only other lithium mine in production in North America and is located within 1 mile (1.6 kilometers) of Noram's claims. Lithium at Albemarle's plant is produced from deep wells that pump brine from the basin beneath the Clayton Valley playa (Kunasz , Ihor A., 1970); (Zampirro , 2005); (Munk & Chamberlain, 2011). Albemarle is currently in the process of expanding their operations to double their lithium production and are evaluating the recovery of lithium from clays (Albemarle Corporation, 2021).

Pure Energy Minerals Ltd.'s (Pure Energy) Clayton Valley South Project lies between Albemarle's operation and Noram's land claims. According to Pure Energy's revised Preliminary Economic Assessment (PEA) dated March 23, 2018, an inferred resource of 200,000 metric tonnes of lithium hydroxide monohydrate is expected to be extracted by their operation over a 20-year period (Molnar, et al, 2018). In 2019, Pure Energy formed a partnership with Schlumberger Ltd., and announced plans to develop a lithium extraction technology that will greatly reduce production time (Pure Energy Minerals Ltd, 2021).

Sienna Resources Inc has several properties in the Clayton Valley Area. One of these properties has focused on a lithium brine deposit. This deposit is in the middle and completely surrounded by Pure Energy's claims.

## 23.2 Lithium in Sediments

East of Pure Energy's claims and adjacent to the west of Noram's holdings, Cypress Development (changed its name to Century Lithium Corporation on January 26, 2023) completed a PFS dated August 05, 2020, and amended March 15, 2021. The economic analysis from the PFS reports 1.304 billion tonnes of indicated mineral resources at a grade of 904.7 ppm Li and 236.4 million tonnes of inferred resources at a grade of 759.6 ppm Li. They reported 231.3 million tonnes of probable reserve at 1129 ppm grade to be mined in 11 stages. The current mine plan calls for the first 8 stages to be mined over a 40-year mine life at a production rate of 15,000 tonnes/day. Currently, the company is conducting a feasibility study which is expected to be completed in the second quarter of 2023. The company achieved a significant milestone in September 2022 with the production of 99.94% $Li_2CO_3$ from Li-bearing claystone from the Project.

Enertopia Corporation which holds a smaller land position that borders both Cypress Development and Noram, produced a maiden resource estimate from the results of 4 drillholes and 1 metallurgical hole on March 30, 2020 (Peek, 2020). At a 400-ppm cut-off, the indicated mineral resource is 91.7 million tonnes with a grade of 1,121 ppm and an inferred resource of 20.5 million tonnes with a grade of 1,131 ppm Li.

Spearmint Resources Inc has properties that are located to the south and west of Noram's claims. The McGee Lithium Clay Deposit is south and adjacent to Century Lithium Corporation. The Green Clay Lithium Project is South of Noram's claims and West of Sienna Resources lithium project. On June 17, 2022, Spearmint received its resource estimate in a technical report which estimated that the McGee Lithium Clay Deposit has an estimated resource of 1,369,000 indicated tonnes and 723,000 inferred tonnes, for a total of 2,092,000 tonnes of lithium carbonate equivalent.

Sienna Resources Blue Clay Lithium Project is located to the east and adjacent to Spearmint Resources claims. Sienna announced that their maiden drill program revealed high-grade lithium values of 1,230 ppm Li. Grades of Li were 800 ppm Li over 36.58 m (120 ft) and also 1,011 ppm Li over 40 ft (12.19 m).

# 24 Other Relevant Data and Information

Chapter 27 provides a list of documents that were consulted in support of the Resource Estimate Update. No further data or information is necessary, in the opinion of the author to make the report understandable and not misleading.

# 25 Interpretation and Conclusions

Noram has mineral ownership to 1,133 hectares of U.S. Government owned land administered by the BLM which host a lithium Mineral Resource. Noram is required to pay annual assessment fees to maintain mineral title to these lands and is required to permit all activities which result in surface impact at the project.

Noram has completed a total of 92 drillholes in seven phases of drilling between 2017 to 2024. The results of the drilling have defined a relatively continuous horizon of lithium mineralization hosted within clay minerals in the Esmeralda Formation. Density and moisture content studies have determined appropriate mass conversions for all lithologic units of importance. Preliminary metallurgical studies have shown that lithium can be recovered from the clays with an acid leach and solid recovery method.

A Mineral Resource estimation has been completed by Big Rock Exploration and has been reviewed by a Qualified Person from SRK Consulting (U.S.), Inc.. Reasonable prospects of eventual economic extraction of the MRE has been satisfied by applying appropriate, costs, recovery and pit slopes angle to construct a Mineral Resource conceptual pit shell. The results of the MRE study are 564 million dry tonnes of Indicated Mineral Resource averaging 956 ppm lithium and hosting 2,871 kilo tonnes of Lithium Carbonate. The deposit also contains an additional 287 million dry tonnes of Inferred Mineral Resource averaging 861 ppm Lithium and hosting 1,314 kilo tonnes of lithium carbonate.

Additional future drilling has the potential to convert the Inferred Mineral Resource to Indicated Mineral Resource as well and to expand the Mineral Resource to the east.

# 26 Recommendations

## 26.1 Recommended Work Programs

Based on the conclusions outlined in this report, it is recommended that Noram complete further engineering studies to evaluate the potential economics of lithium carbonate production from Zeus mineralized materials. These engineering studies should be completed to the NI 43-101 standard for a Preliminary Economic Assessment (PEA).

### 26.1.1 Geology and Mineralization

Adequate work on geology and mineralization has been undertaken to support a PEA, no further work is recommended at this time.

### 26.1.2 Mineral Processing and Metallurgical Testing

Adequate metallurgical testwork was completed in 2023 by Noram to support a PEA, no further work is recommended at this time.

### 26.1.3 Mineral Resource Estimate

The Mineral Resources estimated in this report are adequate to support a PEA, no further work is recommended at this time.

### 26.1.4 Mining Methods

It is recommended that mining methods be developed for the Zeus mineralized material, including an evaluation of use of coal-seam style scrapers to minimize mining costs. A mine schedule for the high-grade core of the deposit should be developed as the basis for the PEA mine plan.

### 26.1.5 Recovery Methods

A fully integrated mass and energy balance has been completed for the Zeus flowsheet by Noram. The balance should be reviewed, and a final equipment list selected for use in capital and operating cost estimates for the PEA.

### 26.1.6 Project Infrastructure

Basic project infrastructure should be developed for the project including preliminary tailings storage facility conceptual designs and waste storage facilities.

#### 26.1.7 Environmental Studies and Permitting

No further site work will be required for the PEA so further environmental and permitting studies are not required to complete the PEA. However, Noram have undertaken a number of base line studies as recommended by the Bureau of Land Management for the completion of an Environmental Assessment for an Exploration Plan of Operations permit. Although not required for a PEA, it is recommended that theses base line studies continue.

#### 26.1.8 Capital and Operating Costs

An AACE Class 5 capital and operating cost estimate should be prepared for the Zeus project.

#### 26.1.9 Economic Analysis

A project based discounted cash flow model should be developed for the project to estimate Net Present Value and Internal Rate of Return. The model should include taxes and royalties payable at the project level.

## 26.2 Recommended Work Program Costs

**Table 26-1: Summary of Costs for Recommended Work**

| Discipline | Cost (US$) |
|---|---|
| Mining Methods | $60,000 |
| Recovery Methods | $10,000 |
| Project Infrastructure | $50,000 |
| Environmental Studies and Permitting | $380,000 |
| Capital and Operating Costs | $50,000 |
| Economic Analysis | $30,000 |
| Preparation of NI 43-101 report | $50,000 |
| **Total US$** | **$630,000** |

Source: SRK, 2024

# 27 References

Albers, J. P. and Stewart, J. H., 1965, Preliminary Geologic Map of Esmeralda County, Nevada: U.S. Geol. Survey Field Studies Map MF-298, 1:250,000 scale.

Albers, John P. and Stewart, J. H., 1972, Geology and Mineral Deposits of Esmeralda County, Nevada: Nevada Bureau of Mines and Geology Bulletin 78, 80p.

Benson, T.R., Coble, M.A., and Dilles, J.H., 2023, Hydrothermal enrichment of lithium in intracaldera illite-bearing claystones, Sci. Adv. 9 (35), eadh8183. DOI: 10.1126/sciadv.adh8183.

BRE, 2024, Updated Mineral Resource Estimate Zeus Lithium Project, Clayton Valley Nevada USA, May 27, 2024.

Climate Goldfield - Nevada, 2020, Retrieved from U.S. Climate Date: https://www.usclimatedata.com/climate/goldfield/nevada/united-states/usnv0036

CIM (2014). Canadian Institute of Mining, Metallurgy and Petroleum Standards on Mineral Resources and Reserves: Definitions and Guidelines, May 10, 2014.

Cukor, D. and Hilscher, B., 2023, Updated resource estimate, Zeus Lithium Project, Esmeralda County, Nevada: ABH Engineering Inc. NI 43-101 Report for Noram Lithium Corporation.

Flint, R. F., 1960, Diamictite, a substitute term for symmictite. Geological Society of America. Bulletin, volume 71(12), pp. 1809 - 1810.

Hamilton AR, Campbell KA, Guido DM. 2019. Atlas of siliceous hot spring deposits (sinter) and other silicified surface manifestations in epithermal environments. Lower Hutt (NZ): GNS Science. 56 p. (GNS Science report; 2019/06).

Kunasz , Ihor A., 1970, Geology and geochemistry of the lithium deposit in Clayton Valley, Esmeralda County, Nevada: Unpublished Ph.D., Dissertation, Pennsylvania State University.

Munk & Chamberlain, 2011, Geochemistry of Lithium-rich brines in Clayton Valley, Nevada, USA

Peek, B. C., & Barrie, C. T, 2019, Updated Inferred Mineral Resource Estimate, Zeus Project, Clayton Valley, Nevada, prepared for Noram Ventures Inc. NI 43-101 Technical Report.

Peek, B., & Spanjers, R. P, 2017, Lithium Inferred Mineral Resource Estimate, Clayton Valley, Emeralda County, Nevada, prepared for Noram Ventures Inc. and Alba Minerals Ltd. NI 43- 101 Technical Report.

Peterson D.M. and Berg, E.A., 2024. Updated Bedrock Geology and Quaternary Landform Map of Noram Lithium Corp's Zeus Property, Esmeralda County, Nevada: Big Rock Exploration map BRE-MAP-2024-02, 1:10,000 scale.

Zampirro, Danny, 2005, Hydrogeology of Clayton Valley Brine Deposits, Esmeralda County, Nevada: The Professional Geologist, Vol. 42, No. 3, pp. 46-54.

# 28 Glossary

The Mineral Resources and Mineral Reserves have been classified according to CIM (CIM, 2014). Accordingly, the Resources have been classified as Measured, Indicated or Inferred, the Reserves have been classified as Proven, and Probable based on the Measured and Indicated Resources as defined below.

## 28.1 Mineral Resources

A **Mineral Resource** is a concentration or occurrence of solid material of economic interest in or on the Earth's crust in such form, grade or quality and quantity that there are reasonable prospects for eventual economic extraction. The location, quantity, grade or quality, continuity and other geological characteristics of a Mineral Resource are known, estimated or interpreted from specific geological evidence and knowledge, including sampling.

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

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

A **Measured Mineral Resource** is that part of a Mineral Resource for which quantity, grade or quality, densities, shape, and physical characteristics are estimated with confidence sufficient to allow the application of Modifying Factors to support detailed mine planning and final evaluation of the economic viability of the deposit. Geological evidence is derived from detailed and reliable exploration, sampling and testing and is sufficient to confirm geological and grade or quality continuity between points of observation. A Measured Mineral Resource has a higher level of confidence than that applying to either an Indicated Mineral Resource or an Inferred Mineral Resource. It may be converted to a Proven Mineral Reserve or to a Probable Mineral Reserve.

## 28.2 Mineral Reserves

A **Mineral Reserve** is the economically mineable part of a Measured and/or Indicated Mineral Resource. It includes diluting materials and allowances for losses, which may occur when the material is mined or extracted and is defined by studies at Pre-Feasibility or Feasibility level as appropriate that include application of Modifying Factors. Such studies demonstrate that, at the time of reporting, extraction could reasonably be justified.

The reference point at which Mineral Reserves are defined, usually the point where the ore is delivered to the processing plant, must be stated. It is important that, in all situations where the reference point is different, such as for a saleable product, a clarifying statement is included to ensure that the reader is fully informed as to what is being reported. The public disclosure of a Mineral Reserve must be demonstrated by a Pre-Feasibility Study or Feasibility Study.

A **Probable Mineral Reserve** is the economically mineable part of an Indicated, and in some circumstances, a Measured Mineral Resource. The confidence in the Modifying Factors applying to a Probable Mineral Reserve is lower than that applying to a Proven Mineral Reserve.

A **Proven Mineral Reserve** is the economically mineable part of a Measured Mineral Resource. A Proven Mineral Reserve implies a high degree of confidence in the Modifying Factors.

## 28.3 Definition of Terms

The general mining terms shown in Table 28-1 may be used in this report.

**Table 28-1: Definition of Terms**

| Term | Definition |
|---|---|
| Assay | The chemical analysis of mineral samples to determine the metal content. |
| Capital Expenditure | All other expenditures not classified as operating costs. |
| Composite | Combining more than one sample result to give an average result over a larger distance. |
| Concentrate | A metal-rich product resulting from a mineral enrichment process such as gravity concentration or flotation, in which most of the desired mineral has been separated from the waste material in the ore. |
| Crushing | Initial process of reducing ore particle size to render it more amenable for further processing. |
| Cut-off Grade (CoG) | The grade of mineralized rock, which determines as to whether or not it is economic to recover its gold content by further concentration. |
| Dilution | Waste, which is unavoidably mined with ore. |
| Dip | Angle of inclination of a geological feature/rock from the horizontal. |
| Fault | The surface of a fracture along which movement has occurred. |
| Footwall | The underlying side of an orebody or stope. |
| Gangue | Non-valuable components of the ore. |
| Grade | The measure of concentration of gold within mineralized rock. |
| Hangingwall | The overlying side of an orebody or slope. |
| Haulage | A horizontal underground excavation which is used to transport mined ore. |
| Hydrocyclone | A process whereby material is graded according to size by exploiting centrifugal forces of particulate materials. |
| Igneous | Primary crystalline rock formed by the solidification of magma. |
| Kriging | An interpolation method of assigning values from samples to blocks that minimizes the estimation error. |
| Level | Horizontal tunnel the primary purpose is the transportation of personnel and materials. |
| Lithological | Geological description pertaining to different rock types. |
| LoM Plans | Life-of-Mine plans. |

| Term | Definition |
|---|---|
| LRP | Long Range Plan. |
| Material Properties | Mine properties. |
| Milling | A general term used to describe the process in which the ore is crushed and ground and subjected to physical or chemical treatment to extract the valuable metals to a concentrate or finished product. |
| Mineral/Mining Lease | A lease area for which mineral rights are held. |
| Mining Assets | The Material Properties and Significant Exploration Properties. |
| Ongoing Capital | Capital estimates of a routine nature, which is necessary for sustaining operations. |
| Ore Reserve | See Mineral Reserve. |
| Pillar | Rock left behind to help support the excavations in an underground mine. |
| RoM | Run-of-Mine. |
| Sedimentary | Pertaining to rocks formed by the accumulation of sediments, formed by the erosion of other rocks. |
| Shaft | An opening cut downwards from the surface for transporting personnel, equipment, supplies, ore and waste. |
| Sill | A thin, tabular, horizontal to sub-horizontal body of igneous rock formed by the injection of magma into planar zones of weakness. |
| Smelting | A high temperature pyrometallurgical operation conducted in a furnace, in which the valuable metal is collected to a molten matte or doré phase and separated from the gangue components that accumulate in a less dense molten slag phase. |
| Stope | Underground void created by mining. |
| Stratigraphy | The study of stratified rocks in terms of time and space. |
| Strike | Direction of line formed by the intersection of strata surfaces with the horizontal plane, always perpendicular to the dip direction. |
| Sulfide | A sulfur bearing mineral. |
| Tailings | Finely ground waste rock from which valuable minerals or metals have been extracted. |
| Thickening | The process of concentrating solid particles in suspension. |
| Total Expenditure | All expenditures including those of an operating and capital nature. |
| Variogram | A statistical representation of the characteristics (usually grade). |

## 28.4 Abbreviations

The abbreviations shown in Table 28-2 may be used in this report.

**Table 28-2: Abbreviations**

| Abbreviation | Unit or Term |
|---|---|
| A | ampere |
| AA | atomic absorption |
| $A/m^2$ | amperes per square meter |
| ANFO | ammonium nitrate fuel oil |
| Ag | silver |
| Au | gold |
| AuEq | gold equivalent grade |
| BRE | Big Rock Exploration |
| BLM | United States Bureau of Land Management |
| °C | degrees Centigrade |
| CCD | counter-current decantation |
| CIL | carbon-in-leach |

| Abbreviation | Unit or Term |
|---|---|
| CoG | cut-off grade |
| cm | centimeter |
| $cm^2$ | square centimeter |
| $cm^3$ | cubic centimeter |
| cfm | cubic feet per minute |
| CFR | Code of Federal Regulations |
| ConfC | confidence code |
| CRec | core recovery |
| CSS | closed-side setting |
| CTW | calculated true width |
| ° | degree (degrees) |
| dia. | diameter |
| EIS | Environmental Impact Statement |
| EMP | Environmental Management Plan |
| FA | fire assay |
| ft | foot (feet) |
| $ft^2$ | square foot (feet) |
| $ft^3$ | cubic foot (feet) |
| g | gram |
| gal | gallon |
| g/L | gram per liter |
| GOR | gross overriding loyalty |
| gpm | gallons per minute |
| g/t | grams per tonne |
| ha | hectares |
| IFC | International Finance Corporation |
| ILS | Intermediate Leach Solution |
| kA | kiloamperes |
| kg | kilograms |
| km | kilometer |
| $km^2$ | square kilometer |
| koz | thousand troy ounce |
| kt | thousand tonnes |
| kt/d | thousand tonnes per day |
| kt/y | thousand tonnes per year |
| kV | kilovolt |
| kW | kilowatt |
| kWh | kilowatt-hour |
| kWh/t | kilowatt-hour per metric tonne |
| L | liter |
| L/sec | liters per second |
| L/sec/m | liters per second per meter |
| lb | pound |
| LoM | Life-of-Mine |
| LRC | Lithium Royalty Corp. |
| m | meter |
| $m^2$ | square meter |
| $m^3$ | cubic meter |
| mm | millimeters |
| masl | meters above sea level |
| mg/L | milligrams/liter |
| mm | millimeter |

| Abbreviation | Unit or Term |
|---|---|
| $mm^2$ | square millimeter |
| $mm^3$ | cubic millimeter |
| MME | Mine & Mill Engineering |
| Moz | million troy ounces |
| MRE | Mineral Resource Estimation |
| Mt | million tonnes |
| MTW | measured true width |
| MW | million watts |
| m.y. | million years |
| NI 43-101 | Canadian National Instrument 43-101 |
| Noram | Noram Lithium Corporation |
| oz | troy ounce |
| % | percent |
| ppm | parts per million |
| QA/QC | Quality Assurance/Quality Control |
| QP | Qualified Persons |
| RC | rotary circulation drilling |
| RoM | Run-of-Mine |
| RQD | Rock Quality Description |
| SEC | U.S. Securities & Exchange Commission |
| sec | second |
| SG | specific gravity |
| SRK | SRK Consulting (U.S.), Inc. |
| st | short ton (2,000 pounds) |
| t | tonne (metric ton) (2,204.6 pounds) |
| t/h | tonnes per hour |
| t/d | tonnes per day |
| t/y | tonnes per year |
| µm | micron or microns |
| Zeus | Zeus Lithium project |

# Appendix A Certificates of Qualified Persons

SRK Consulting (U.S.), Inc.
Suite 400
999 Seventeenth Street
Denver, CO 80202

**T: 303.985.1333**
**F: 303.985.9947**

denver@srk.com
www.srk.com

## CERTIFICATE OF QUALIFIED PERSON

I, Rob Bowell, C.Chem, C.Geol, P.Geo (NL) do hereby certify that:

1. I consent to the public filing of the technical report titled "NI 43-101 Technical Report - Mineral Resource Estimation – Zeus Lithium Project, Clayton Valley Nevada, USA" with an effective date of May 15, 2024 prepared for Noram Lithium Corp.
2. I have read the definition of "Qualified Person" set out in National Instrument 43-101 Standards of Disclosure for Mineral Projects and certify that by virtue of my education, affiliation to a professional association and past relevant work experience, I fulfill the requirements to be a "Qualified Person" for those sections of the Technical Report that I am responsible for preparing.
3. I did not visit the Zeus Lithium Project property.
4. I am responsible for Metallurgy Section 13, and portions of Sections 1, 25 and 26 summarized therefrom, of this Technical Report.
5. I am independent of Noram Lithium Corp as independence is defined in Section 1.5 of NI 43-101.
6. I have had no previous involvement with the Zeus Lithium Project.
7. I have read NI 43-101 and the sections of the technical report for which I am responsible have been prepared in compliance with that instrument. 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 those sections of the technical report not misleading.

Dated this 10th Day of July, 2024.

*Signed*

__________________________________

Rob Bowell

SRK Consulting (U.S.), Inc.
Suite 400
999 Seventeenth Street
Denver, CO 80202

**T: 303.985.1333**
**F: 303.985.9947**

denver@srk.com
www.srk.com

## CERTIFICATE OF QUALIFIED PERSON

I, Sam Siebenaler, SME-RM do hereby certify that:

1. I consent to the public filing of the technical report titled "NI 43-101 Technical Report - Mineral Resource Estimation – Zeus Lithium Project, Clayton Valley Nevada, USA" with an effective date of May 15, 2024 prepared for Noram Lithium Corp.
2. I have read the definition of "Qualified Person" set out in National Instrument 43-101 Standards of Disclosure for Mineral Projects and certify that by virtue of my education, affiliation to a professional association and past relevant work experience, I fulfill the requirements to be a "Qualified Person" for those sections of the Technical Report that I am responsible for preparing.
3. I did not visit the Zeus Lithium Project site.
4. I am responsible for sections 4-12 and portions of Sections 1, 25 and 26 summarized therefrom.
5. I am independent of Noram Lithium Corp as independence is defined in Section 1.5 of NI 43-101.
6. I have had no previous involvement with the Zeus Lithium Project.
7. I have read NI 43-101 and the sections of the technical report for which I am responsible have been prepared in compliance with that instrument. 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 those sections of the technical report not misleading.

Dated this 10th Day of July, 2024.

*Signed*

______________________________

Sam Siebenaler

SRK Consulting (U.S.), Inc.
Suite 400
999 Seventeenth Street
Denver, CO 80202

**T: 303.985.1333**
**F: 303.985.9947**

denver@srk.com
www.srk.com

## CERTIFICATE OF QUALIFIED PERSON
## Bart Stryhas, AIPG-CPG

I, Bart Stryhas, AIPG-CPG, certify that:

1. I consent to the public filing of the technical report titled "NI 43-101 Technical Report - Mineral Resource Estimation – Zeus Lithium Project, Clayton Valley Nevada, USA" with an effective date of May 15, 2024 prepared for Noram Lithium Corp.
2. I have read the definition of "Qualified Person" set out in National Instrument 43-101 Standards of Disclosure for Mineral Projects and certify that by virtue of my education, affiliation to a professional association and past relevant work experience, I fulfill the requirements to be a "Qualified Person" for those sections of the Technical Report that I am responsible for preparing.
3. I visited the Zeus Lithium Project site on June 2, 2023 and December 8, 2023 for a visit duration of 2 days.
4. I am responsible for sections 2, 3, 14, 19, 20, 23, 24 and portions of Sections 1, 25 and 26 summarized therefrom
5. I am independent of Noram Lithium Corp as independence is defined in Section 1.5 of NI 43-101.
6. I have had no previous involvement with the Zeus Lithium Project.
7. I have read NI 43-101 and the sections of the technical report for which I am responsible have been prepared in compliance with that instrument. 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 those sections of the technical report not misleading.

Dated this 10th Day of July, 2024.

*Signed*

________________________________

Bart Stryhas