



# UPDATED NI 43-101 TECHNICAL REPORT ON THE FEASIBILITY STUDY OF THE CLAYTON VALLEY LITHIUM PROJECT Esmeralda County, Nevada, USA



**Effective Date:** January 3, 2026

**Prepared for:** Century Lithium Corp.

**Prepared by:** Richard W. Jolk, P.E., Mineral Property Development (MPDI)  
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## CERTIFICATE OF QUALIFIED PERSON

Hamid Samari, MMSA  
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I, Hamid Samari, MMSA, am employed as a Principal Geologist with Global Resource Engineering Ltd.

This certificate applies to the technical report entitled "Updated NI 43-101 Technical Report on the Feasibility of the Clayton Valley Lithium Project, Esmeralda County, Nevada, USA" with an effective date of January 3, 2026 (the "Technical Report").

I am registered as a Professional Geologist with MMSA. I graduated with a PhD degree in Tectonics and Structural Geology from Azad University, Sciences and Research Branch, Tehran, in 2000. I got my master's degree in Tectonics from Beheshti University, Tehran, in 1995, and my bachelor's degree in geology from Beheshti University, Tehran, in 1991. I worked for Azad University, Mahallat branch, as an assistant professor and head of the geology department for 19 years, and simultaneously for Tamavan Consulting Engineers as a senior geologist for 12 years. I have also worked for Global Resource Engineering for nearly nine years.

I have practiced my profession for more than 26 years. As a consulting geologist, I have worked on geologic reports and resource statements for gold, silver, precious metals, and lithium deposits mainly in Nevada, Utah, and Latin America. I have overseen exploration drilling programs involving sampling and QA/QC, have prepared geologic models and maps, and conducted database validation. I have been involved with the preparation of several mining studies, ranging from preliminary economic assessments to feasibility studies. As a result of my experience and qualifications, I am a Qualified Person as defined in National Instrument 43-101 *Standards of Disclosure for Mineral Projects* (NI 43-101), for those sections of the Technical Report that I am responsible for preparing.

I visited the Clayton Valley property between 31 May and 1 June 2022.

I am responsible for Sections 1.4 to 1.7, 1.18 to 1.20; Sections 2.2, 2.3, 2.5; Section 3; Sections 6 to 11; Sections 12.1 to 12.4, 12.5.1; Sections 25.1, 25.3, 25.4, 25.13-14; Sections 26.1, 26.2, 26.8; and Section 27, of the Technical Report.

I am independent of Century Lithium Corp. as independence is described by Section 1.5 of NI 43-101.

I have had previous involvement with the Clayton Valley property, preparing the NI 43-101 Technical Report on the prefeasibility study dated December 15, 2022 and the Technical Report on the Feasibility Study of the Clayton Valley Lithium Project, Esmeralda County, Nevada, USA" with an effective date of April 29, 2024.

I have read NI 43-101, and the sections of the Technical Report that I am responsible for 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 for preparing contain all scientific and technical information that is required to be disclosed to make those sections of the Technical Report not misleading.

Hamid Samari, MMSA  
Dated: January 3, 2026



**CERTIFICATE OF QUALIFIED PERSON**

Haiming (Peter) Yuan, PE, PhD  
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I, Haiming (Peter) Yuan, PE, PhD, am employed as a Principal Geotechnical Engineer with SRK Consulting, Inc.

This certificate applies to the technical report entitled "Updated NI 43-101 Technical Report on the Feasibility of the Clayton Valley Lithium Project, Esmeralda County, Nevada, USA" with an effective date of January 3, 2026 (the "Technical Report").

I am registered as a Professional Engineer (PE), in the State of Nevada (#019348). I graduated from Zhejiang University, in China in 1997 with a Bachelor of Civil Engineering degree, and obtained a Master of Science degree in Geotechnical Engineering from the same university in 2000. I graduated from Clemson University in 2003, with a doctoral degree in Geotechnical Engineering.

I have practiced my profession for 22 years. I have been directly involved in design of tailings impoundments, heap leach pads, and other mine waste disposal facilities. I have been supporting environmental, permitting, water management and social aspects of mining projects from engineering perspectives, and been involved in studies from scoping levels to closure for projects located throughout North America, South America and Asia.

As a result of my experience and qualifications, I am a Qualified Person as defined in National Instrument 43-101 *Standards of Disclosure for Mineral Projects* (NI 43-101), for those sections of the Technical Report that I am responsible for preparing.

I most recently visited the Clayton Valley property on 3 August 2022.

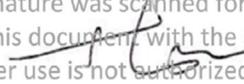
I am responsible for Sections 1.15, 1.18 to 1.20; Sections 2.2, 2.3, 2.5; Section 3; Sections 12.1, 12.5.4; Sections 18.1, 18.6 to 18.7; Section 20; Sections 25.1, 25.8, 25.12 to 25.14; Sections 26.1, 26.5, 26.6; and Section 27, of the Technical Report.

I am independent of Century Lithium Corp. as independence is described by Section 1.5 of NI 43-101. I have previous involvement with the Clayton Valley property in the Technical Report on the Feasibility Study of the Clayton Valley Lithium Project, Esmeralda County, Nevada, USA" with an effective date of April 29, 2024.

I have read NI 43-101, and the sections of the Technical Report that I am responsible for 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 for preparing contain all scientific and technical information that is required to be disclosed to make those sections of the Technical Report not misleading.

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use in this document, with the author's approval;  
any other use is not authorized.

A handwritten signature in black ink, appearing to be "H. Yuan", is written over the text.

---

Dr. Haiming (Peter) Yuan  
Dated: January 3, 2026

## CERTIFICATE OF QUALIFIED PERSON

Richard W. Jolk, P.E.  
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I, Richard W. Jolk, P.E., am employed as a Principal Engineer and Owner of MPDI, LLC.

This certificate applies to the technical report entitled "Updated NI 43-101 Technical Report on the Feasibility of the Clayton Valley Lithium Project, Esmeralda County, Nevada, USA" with an effective date of January 3, 2026 (the "Technical Report").

I am a Registered Professional Engineer in the State of Colorado, PE License PE.0024448. I am an emeritus member of the International Institute of Mineral Appraisers, CMA 2010-10. I graduated from the Colorado School of Mines and obtained a BS in Metallurgical Engineering in 1978, an EM (Engineer of Mines) credential in Mining Engineering in 1986, a MS in Environmental Engineering in 1993, and a PhD in Mining and Earth Systems Engineering in 2007.

I have practiced my profession for 46 years since receiving my undergraduate degree and have extensive global experience in the engineering, operating, and consulting fields associated with the evaluation of mineral deposits and the development of mining and processing operations.

As a result of my education, experience and qualifications, I am a Qualified Person as defined by National Instrument 43-101 *Standards of Disclosure for Mineral Projects* (NI 43-101), for those portions of the Technical Report for which I take responsibility.

Due to health considerations, I have not conducted a personal site visit. I have relied on the site visit conducted by several other Qualified Persons contributing to the Technical Report and on detailed technical documentation, operational records, and discussions with project personnel.

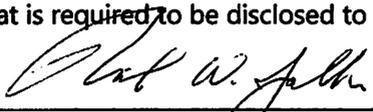
I oversaw writing of this report and reviewed the preparation of Sections 1.1-1.2, 1.7, 1.8, 1.12-1.20; Sections 2.2, 2.3, 2.5; Section 3; Sections 12.1, 12.5.2; Section 13; Sections 17-19, Sections 21-22; Sections 25.1, 25.5, 25.7, 25.9-25.11, 25.13, 25.14; Sections 26.1, 26.3, 26.7, 26.8; and Section 27 of the Technical Report.

I am independent of Century Lithium Corp., as independence is described by Section 1.5 of National Instrument 43-101.

I have had no previous involvement with the Clayton Valley property.

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

As of the date of this certificate, to the best of my knowledge, information reviewed, and belief, the parts of the Technical Report that I am responsible for preparing contain all scientific and technical information that is required to be disclosed to prevent this Technical Report from being misleading.



Dr. Richard W. Jolk, P.E.

Dated: January 3, 2026



## CERTIFICATE OF QUALIFIED PERSON

Terre Lane, RM SME, MMSA  
Principal Mining Engineer  
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I, Terre Lane, RM SME, MMSA, am employed as a Principal Mining Engineer at Global Resource Engineering Ltd.

This certificate applies to the technical report entitled "Updated NI 43-101 Technical Report on the Feasibility of the Clayton Valley Lithium Project, Esmeralda County, Nevada, USA" with an effective date of January 3, 2026 (the "Technical Report").

I am a Qualified Professional in the United States from the Mining and Metallurgical Society of America (MMSA) with a membership number of 01407QP and a Registered Member of the Society of Mining, Metallurgy and Exploration (SME) with a membership number of 4053005. I graduated from Michigan Technological University with a Bachelor of Science in Mining Engineering in 1982.

I have practiced my profession for over 40 years. I have been directly involved in construction, startup, operations of several mines. I have been involved with or led geology, resource and reserve estimation, mine design, capital and operating cost estimation, economic analysis, and reports, for hundreds of developing projects from preliminary to detailed design engineering levels.

As a result of my experience and qualifications, I am a Qualified Person as defined in National Instrument 43-101 Standards of Disclosure for Mineral Projects (NI 43-101), for those sections of the Technical Report that I am responsible for preparing.

I visited the Clayton Valley property March 21, 2019 and between 31 May and 1 June, 2022.

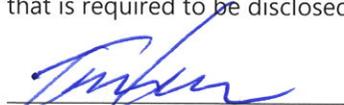
I am responsible for Sections 1.3, 1.7, 1.9 to 1.11, 1.16.1, 1.16.2, 1.17 to 1.20, 12.1, 12.5.3, 14 to 16, 21.2.2.1, 21.2.2.2, 21.3, 21.4.2, 21.4.3.3, 22, 25.1, 25.6, 25.10 to 25.11, 26.1, 26.4, and 26.8 of the Technical Report.

I am independent of Century Lithium Corp. as independence is described by Section 1.5 of NI 43-101.

I have been involved with the Clayton Valley property since 2018 and have acted as a Qualified Person for the preliminary economic assessment, prefeasibility study, and feasibility.

I have read NI 43-101, and the sections of the Technical Report that I am responsible for 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 for preparing contain all scientific and technical information that is required to be disclosed to make those sections of the Technical Report not misleading.

  
Terre A. Lane, RM SME, MMSA  
Dated: January 3, 2026

**CERTIFICATE OF QUALIFIED PERSON**

Todd S. Fayram, QP1300, MMSA  
Century Lithium Corp.  
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Butte, MT 59701

I, Todd S. Fayram, MMSA am employed as a Senior Vice President Metallurgy with Century Lithium Corp and Principal of Continental Metallurgical Services.

This certificate applies to the technical report entitled "Updated NI 43-101 Technical Report on the Feasibility of the Clayton Valley Lithium Project, Esmeralda County, Nevada, USA" with an effective date of January 3, 2026 (the "Technical Report").

I am registered as a Metallurgical Engineer with Mining and Metallurgical Society of America, QP1300. I graduated from Montana Tech in 1983 with a Bachelor of Science in Mineral Processing Engineering and completed a Master of Science from Montana Tech in Metallurgical Engineering in 2013.

I have practiced my profession for over 40 years since graduation from undergraduate university and have years of diversified experience in the consulting and operating fields for various mining and milling operations across the world. Since 2017, I have worked on the Century Clayton Valley claystones as Principal of Continental Metallurgical Services and as VP Metallurgy for Century Lithium to identify methods for lithium recovery.

As a result of my experience and qualifications, I am a Qualified Person as defined in National Instrument 43-101 *Standards of Disclosure for Mineral Projects* (NI 43-101), for those sections of the Technical Report that I am responsible for preparing.

I visited the Clayton Valley property numerous times over the past five years with the most recent visit in November 2025.

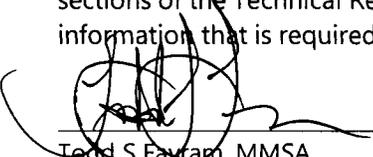
I am responsible for parts or all of Sections 1.1-1.2, 1.7, 1.8, 1.12-1.20; 2.2, 2.3, 2.5; 3; 12.1, 12.5.2; 13; 17-19, 21-22 (Except 21.3), 24, 25.1, 25.2, 25.5, 25.7, 25.9-25.11, 25.13, 25.14; 26.1, 26.3, 26.7, 26.8; and 27 of the Technical Report.

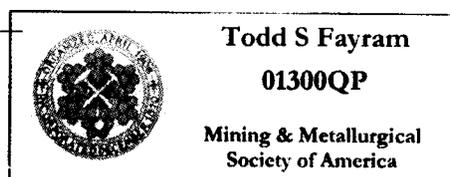
I am not independent of Century Lithium Corp. as independence is described by Section 1.5 of NI 43-101.

I have been involved with the Clayton Valley property since November 2017. Initial involvement started in November 2017 as a metallurgical consultant through Continental Metallurgical Services, LLC (CMS). Involvement though CMS continued until May 2023 when I went to work for Century Lithium Corp. as a fulltime employee.

I have read NI 43-101, and the sections of the Technical Report that I am responsible for 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 for preparing contain all scientific and technical information that is required to be disclosed to make those sections of the Technical Report not misleading.

  
Todd S. Fayram, MMSA  
Dated: January 3, 2026



## Important Notice

*This Report was prepared for Century Lithium Corp. (Century) by Richard W. Jolk, P.E., Mineral Property Development (MPDI), Terre Lane, Global Resource Engineering, Todd S. Fayram, Century Lithium Corp., Hamid Samari, Global Resource Engineering, and Haiming Yuan, P.E., SRK). This Report has been prepared in accordance with National Instrument 43-101 and the CIM Definition Standards and is based on information available as of the effective date of the Report. Subsequent changes in regulatory, market, or technical conditions may materially affect the conclusions presented herein.*

*In preparing this Report, the Qualified Persons have relied upon information, opinions, and interpretations provided by other experts and Qualified Persons in areas including, but not limited to, land tenure, taxation, and legal agreements. The Qualified Persons have no reason to believe that any of the information relied upon is materially inaccurate or incomplete for the purposes of this Report.*

*The quality of the information, conclusions and estimates contained herein is consistent with the level of effort involved in this and previous consultants' services and technical specialists in their respective fields. This Report is based on: i) information available at the time of preparation, ii) data supplied by outside sources, and iii) assumptions, conditions and qualifications set forth in this Report.*

*This Report is intended to be used by Century Lithium Corp. Except for the purposes legislated under Canadian provincial and territorial securities law, any use of, or reliance on, this Report by any third party is at that party's sole risk.*

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## Appendices

Appendix A	Claims List .....	A-1
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### **Abbreviations and Acronyms**

µm	microns
2D, 3D	2 dimensional, 3 dimensional
AAS	atomic absorption spectroscopy
amsl	Above Mean Sea Level
ABA	acid-base accounting
AIPG	American Institute of Professional Geologists
ARi	Amalgamated Research Inc.
ASTM	American Society for Testing and Materials
BLM	Bureau of Land Management
CA	chlor-alkali
CCTV	closed-circuit television
CDP	census designated place
CH <sub>3</sub> COOH	acetic acid
CIM	Canadian Institute of Mining, Metallurgy and Petroleum
CMS	Continental Metallurgical Services, LLC
CP	Centipoise
CVLP	Clayton Valley Lithium Project
Cypress	Cypress Development Corp., Cypress Holdings (Nevada) Ltd.
Century	Century Lithium Corp
DCF	discounted cash flow
DCS	distributed control system
DLE	direct lithium extraction
dmt	dry metric tonnes
EIS	Environmental Impact Study
EV	electric vehicle
F.O.B.	free on board
FS	feasibility study
in, ft, yd	inch, feet or foot, yard
gpm	gallons per minute
GRE	Global Resource Engineering Ltd.
ha	hectare
H <sub>2</sub> SO <sub>4</sub>	sulfuric acid
Hazen	Hazen Research Inc.
HDPE	high density polyethylene
HCl	hydrochloric acid
HNO <sub>3</sub>	nitric acid
Hz	hertz

I/O	input/output
ICP-AES	inductively coupled plasma atomic emission spectroscopy
ICP-MS	inductively coupled plasma mass spectrometry
IRR	internal rate of return in a cash flow analysis
IX	ion exchange
KTS	Koch Technology Systems
mg, kg, t	milligram, kilogram, tonne
km <sup>2</sup> , km <sup>3</sup>	square kilometers, cubic kilometers
kV	kilovolt
kWhr/t	kilowatt-hours/tonne
LCE	lithium carbonate equivalent
Li	lithium
Li <sub>2</sub> CO <sub>3</sub>	lithium carbonate
LOM	life of mine
ml, L	milliliter, liter
mm, cm, m, km	millimeter, centimeter, meter, kilometer
mbsg	meters below surface grade
MCC	motor control center
MMSA	Mining and Metallurgical Society of America
MTO	material take-off
MW	megawatt
NDEP	Nevada Division of Environmental Protection
NEPA	National Environmental Policy Act
NGO	non-governmental organizations
NI	National Instrument
NPV	net present value of a discounted cash flow
NSR	net smelter return
IOS	operator interface station
PC	personal computer
PE	Registered Professional Engineer
PEA	preliminary economic assessment
PFS	prefeasibility study
PLC	programmable logic controller
PLS	pregnant leach solution
PoO	Plan of Operations
ppm	parts/million
psi	pound per square inch
QA/QC	quality assurance/quality control
QP	qualified person
REEs	Rare earth elements
RO	reverse osmosis
rpm	rotations per minute
Saltworks	Saltworks Technologies, Inc.
SDS	safety data sheets
SERS	supplemental environmental reports

SG	specific gravity
SME	Society of Mining, Metallurgy & Exploration
SRCE	Nevada Standard Reclamation Cost Estimator
t/d	tonnes per day
TK	Thiessen Krupp
TSF	tailings storage facility
UPS	uninterruptible power supply
U.S.	United States
USGS	United States Geological Survey
WHMIS	Workplace Hazardous Materials Information System
WPCP	Water Pollution Control Permit
WRSF	waste rock storage facility
XRD	x-ray diffraction

## 1.0 SUMMARY

### 1.1 Introduction

Mineral Property Development, LLC (MPDI) and Global Resource Engineering Ltd (GRE) were retained by Century Lithium Corp. (Century) to update the April 2024, "NI 43-101 Technical Report on the Feasibility Study of the Clayton Valley Lithium Project,," Esmeralda County, Nevada, USA; a technical report (Report) under National Instrument 43-101 Standards of Disclosure for Mineral Projects (NI 43-101) for the Clayton Valley Lithium Project (Project) disclosing the results of a current feasibility study (FS) of the Clayton Valley deposit.

The Project is a greenfield site located in central Esmeralda County, approximately 354-kilometers (km) southeast of Reno, Nevada, USA (Figure 1-1).

### 1.2 Terms of Reference

This Report was completed to update metallurgical results and project cost estimates that were developed in the 2024 report. Items that were not changed from the 2024 report have been identified and disclosed.

Mineral Resource and Mineral Reserve estimates were prepared in accordance with the Canadian Institute of Mining, Metallurgy and Petroleum (CIM) Estimation of Mineral Resources and Mineral Reserves Best Practice Guidelines (CIM, 2019) (2019 CIM Best Practice Guidelines) and reported in accordance with the 2014 CIM Definition Standards on Mineral Resources and Mineral Reserves (2014 CIM Definitions Standards). The Mineral Resource and Mineral Reserve estimates retain an effective date of April 29, 2024 and purposely remain unchanged in this update.

Measurements used for the Project are in metric units unless otherwise stated. Tonnages are in metric tonnes, and grade is reported as parts per million (ppm) unless otherwise noted.

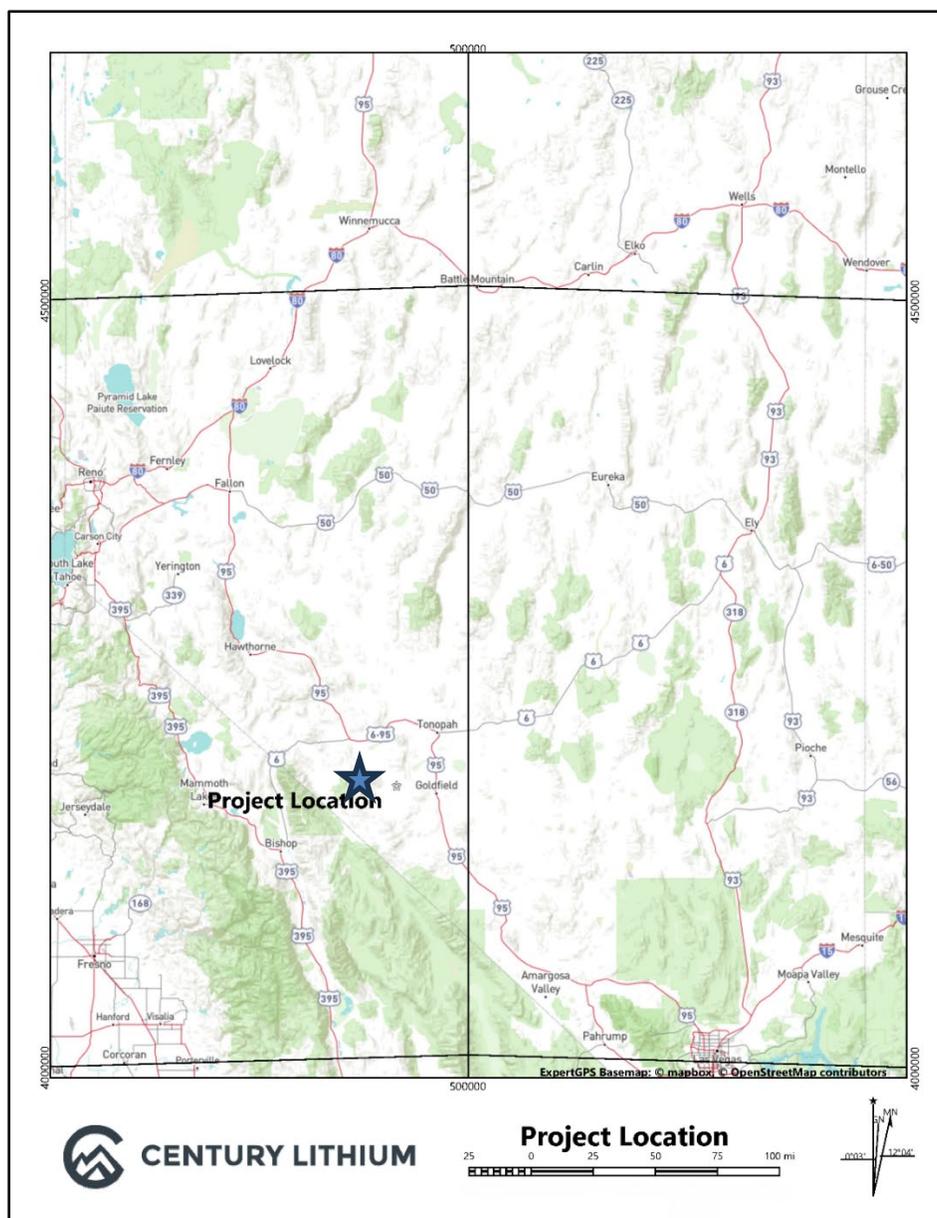
All currency amounts in this FS are presented in \$US dollars.

The Project is planned to produce lithium carbonate ( $\text{Li}_2\text{CO}_3$ ) as its primary product and includes the provision for selling of surplus sodium hydroxide (NaOH) from its on-site chlor-alkali plant. For reporting purposes, all production of lithium is quoted in terms of lithium carbonate equivalent (LCE).

The Project benefits from vertically integrated production of hydrochloric acid and sodium hydroxide via an on-site chlor-alkali facility, reducing exposure to external reagent markets while providing potential by-product revenue. This integration is expected to enhance operating cost stability and provides optional economic upside without being required for base-case project viability.

### 1.3 Mineral Tenure, Surface Rights, and Royalties

The center of the Project Property is located near 452,800 m east, 4,177,750 m north, WGS84, zone 11 north datum, in central Esmeralda County, Nevada. The Property is comprised of 276 unpatented placer mining claims and 227 unpatented lode mining claims. The claims are 100% owned by Cypress Holdings (Nevada) Ltd. (Cypress), a wholly owned subsidiary of Century, and cover 2,286 ha. The claims provide Century with the rights to access all brines, placer and lode minerals on the Property that are subject to four separate underlying royalty agreements.



**Figure 1-1: Project Location Map (Source: Century, 2023)**

## 1.4 History

Lithium was first identified in Clayton Valley in the 1950s with production of lithium carbonate at Silver Peak by 1967.

Century acquired first rights to mining claims in Clayton Valley in 2016 with the purchase of the Glory property and Dean property from third-party vendors. In 2018, Century staked additional claims directly from the Bureau of Land Management (BLM) at the Property. In 2021, Century amended the original Dean claims and staked additional Dean claims as well as staking additional claims directly from the BLM. In 2022, Century purchased property from Enertopia Corporation (Enertopia). In 2023, Century staked additional claims directly from the BLM at the Property.

## 1.5 Geology and Mineralization

No changes to Section 1.5 of the NI 43-101 April, 2024 Technical Feasibility Study have been made.

The Clayton Valley is an endorheic basin in western Nevada near the southwestern margin of the Basin and Range Province, a vast physiographic region in the Western US. Horst and graben normal faulting is a dominant structural element of this Basin and Range geologic feature and likely occurred in conjunction with deformation due to lateral shear stress, resulting in disruption of large-scale topographic features. Clayton Valley is the lowest in elevation of a series of regional playa filled valleys, with a playa floor with an area of approximately 100 square kilometers (km<sup>2</sup>) that receives surface drainage from an area of about 1,300 km<sup>2</sup>. The valley is fault-bounded on all sides, delineated by the Silver Peak Range to the west, Clayton Ridge and the Montezuma Range to the east, the Palmetto Mountains and Silver Peak Range to the south, and Big Smokey Valley, Alkali Flat, Paymaster Ridge, and the Weepah Hills to the north.

The western portion of the project area is dominated by uplifted basement rocks of the Angel Island formation which consist of metavolcanic and clastic rocks, and colluvium. The southern and eastern portions are dominated by uplifted, lacustrine sedimentary units of the Esmeralda Formation. Within the project area, the Esmeralda Formation is comprised of fine grained sedimentary and tuffaceous units, with some occasionally pronounced local undulation and minor faulting. Elevated lithium concentrations, generally greater than 600 ppm, are encountered in the local sedimentary units of the Esmeralda Formation from surface to at least 142 meters below surface grade (mbsg). The lithium-bearing sediments primarily occur as silica-rich, moderately calcareous, interbedded tuffaceous mudstone, claystone, and siltstone.

## 1.6 Drilling and Sampling

No changes to Section 1.6 of the NI 43-101, April 2024 Technical Feasibility Study have been made.

Surface samples of outcropping claystone, tuffaceous mudstone, and soil have been collected using standard hand tools, placed directly into cloth sample bags marked with a blind sample number, and their location recorded with a global positioning system (GPS). Analytical results indicated elevated lithium concentrations over most of the area sampled and provided information for generating drill targets.

Different operators have carried out drilling, with the first drilling on the Property in 2017. Century drilled 33 core holes totaling 2,992.7 m from 2017 to 2019. In 2022, Century drilled eight sonic holes totaling 579.1 m. Enertopia drilled five holes (including one metallurgical hole) on the Property, totaling 439.8 m in 2018. The Mineral Resource estimate is based on 45 core holes totaling 3,955.2 m of drilling. All core drilling was conducted by at-arms-length drilling contractors. Drill hole collars were surveyed by Century geologists using a handheld Garmin GPS MAP 64s and then applied to the elevation on lidar. Downhole surveys were not conducted due to deposit type and relatively shallow hole depths. Core was geologically logged, photographed and prepped for splitting, sample processing, and assay under the direction of Century geologists. Core recoveries ranged from a low of 67.35% to a high of 100% but generally were greater than 90% for holes drilled on the Property.

All core and surface samples were delivered to one of two ISL-certified, independent laboratories, ALS USA or Bureau Veritas Minerals (BV Minerals) in Reno, Nevada by Century personnel.

At the laboratory, samples were crushed, split, and pulverized. Samples from holes drilled in 2017 and 2018 were analyzed by 33-element, 4-acid inductively coupled plasma (ICP)-atomic emission spectroscopy (AES) or ICP-mass spectrometry (MS). Soil and rock chip samples were analyzed by 33-element 4-acid ICP-AES and/or 35-element aqua regia atomic absorption spectrometry (AAS). Samples from the 2019 drilling and the CM-series were analyzed by 60-element, 4-acid ICP-MS, which added the ability to test for rare earth elements. Samples from the sonic holes were digested using aqua regia and subjected to ALS USA's MEMS-61r method which is an ICP-MS and ICP-AES analysis of digested 0.5 g samples.

Century's quality assurance (QA) and quality control (QC) procedures include the insertion of blanks, certified reference material (CRM) standards, and duplicate samples which were routinely inserted into the sample stream to monitor analytical accuracy, precision, and contamination, respectively.

## **1.7 Data Verification**

No changes to Section 1.7 of the NI 43-101, April 2024 Technical Feasibility Study have been made.

The exploration programs completed at the Project to date are appropriate for the style of deposit and mineralization present on the Property.

The drilling and sample collection methods used by Century at the Project are acceptable for Mineral Resource and Mineral Reserve estimation.

The sample preparation, analysis, and security practices used by Century at the Project are acceptable and meet industry-standard practices and are sufficient to support Mineral Resource and Mineral Reserve estimation.

Century initiated a dynamic QA/QC program for the Project and used it in all sample collection and analysis streams from 2017 to 2022. The QA/QC protocol became more comprehensive and detailed with progressive years. The QA/QC submission rates meet industry-accepted standards and did not detect any material sample biases in the data reviewed that support the Mineral Resource and Mineral Reserve estimations.

Data verification concluded that the data collected from the Project adequately supports the geological interpretations and constitute a database of sufficient quality to support the use of the data in Mineral Resource and Mineral Reserve estimation.

## **1.8 Metallurgical Test Work**

Metallurgical, process development, and pilot plant testing completed through mid- 2025 was used for flowsheet development, equipment selection, evolution of operating parameters and development of process design criteria. All test work was performed on material collected from the area of the proposed pit and is considered representative of the Mineral Reserves. Metallurgical practices identified off-the-shelf technology that was readily scalable. Where data was not available, assumptions were made based on best industry practices and recommendations from process consultants familiar with the metallurgical processes associated with the key aspects of lithium production from claystone. The pilot plant has operated more than four years to minimize technical challenges.

Attrition scrubbing at a high pH has demonstrated itself to be an effective method to reduce lithium-bearing clays to their smallest natural component, remove gangue material, and allow for optimum leaching without grinding.

An optimal acid dose to maximize lithium production was determined during testing. Based on later pilot plant results, approximately 84% lithium extraction can be expected in the leach stage.

Neutralization using sodium hydroxide is accomplished after leaching followed by pressure filtration to produce a filter cake suitable for dry stacking in the tailings storage facility (TSF).

Direct lithium extraction (DLE) has demonstrated itself to be successful in removing deleterious elements such sodium, potassium, calcium, magnesium, and boron, eliminating the need for evaporation in the flowsheet.

Treatment of concentrated lithium solution from the pilot plant has consistently resulted in lithium carbonate grading at greater than 99.9%. The chlor-alkali plant generates hydrochloric

acid and sodium hydroxide for use in the process. At the design rates, surplus sodium hydroxide will be produced and available for sale.

A sufficient water supply is held by Century under its water rights permit for the current flowsheet design and operating parameters. No concerns were identified that would impact process performance or reagent consumption.

## 1.9 Mineral Resource Estimate

No changes to Section 1.9 of the NI 43-101, April 2024 Technical Feasibility Study have been made.

The Mineral Resource estimate presented in Table 1-1 assumes open pit mining methods and is reported in accordance with 2014 CIM Definition Standards. The Mineral Resource is reported at a break-even cut-off grade of 200 ppm Li, based on operating costs, process recovery and a lithium price of \$24,000/t.

QP Lane is not aware of any known legal, political, environmental, permitting, title, taxation, socio-economic, marketing, mining, metallurgical, or other factors that would further materially affect the Mineral Resource estimate, other than what is described in this Report.

**Table 1-1: Clayton Valley Mineral Resource Estimate**

Domain	Tonnes Above Cut-off (millions)	Li Grade (ppm)	Li Contained (Mt)	LCE (Mt)
<b>Measured</b>				
Tuffaceous mudstone	49.12	787	0.039	0.206
Claystone all zones	682.84	1,055	0.720	3.835
Siltstone	126.31	717	0.091	0.482
<b>Total</b>	<b>858.26</b>	<b>990</b>	<b>0.850</b>	<b>4.523</b>
<b>Indicated</b>				
Tuffaceous mudstone	17.33	715	0.012	0.066
Claystone all zones	184.74	972	0.180	0.956
Siltstone	78.26	739	0.058	0.308
<b>Total</b>	<b>280.33</b>	<b>891</b>	<b>0.250</b>	<b>1.329</b>
<b>Measured + Indicated</b>				
Tuffaceous mudstone	66.45	768	0.051	0.272
Claystone all zones	867.58	1,037	0.900	4.791
Siltstone	204.57	725	0.148	0.790
<b>Total</b>	<b>1,138.59</b>	<b>966</b>	<b>1.099</b>	<b>5.852</b>
<b>Inferred</b>				
Tuffaceous mudstone	22.67	761	0.017	0.092
Claystone all zones	125.42	883	0.111	0.590
Siltstone	39.19	652	0.026	0.136

<b>Total</b>	<b>187.28</b>	<b>820</b>	<b>0.154</b>	<b>0.817</b>
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1. The effective date of the Mineral Resource Estimate is April 29, 2024. The QP for the estimate is Ms. Terre Lane, MMSA, an employee of GRE and independent of Century.
2. The Mineral Resources are constrained by a pit shell with a 200 ppm Li cut-off and density of 1.505 g/cm<sup>3</sup>. The cut-off grade considers an operating cost of \$20/t mill feed, process recovery of 78% and a long-term lithium carbonate price of \$24,000/t LCE.
3. The Mineral Resource estimate was prepared in accordance with 2014 CIM Definition Standards and the 2019 CIM Best Practice Guidelines.
4. Mineral Resource figures have been rounded.
5. One tonne of lithium = 5.323 tonnes lithium carbonate.
6. Mineral Resources are inclusive of Mineral Reserves.

## 1.10 Mineral Reserves

No changes to Section 1.10 of the NI 43-101, April 2024 Technical Feasibility Study have been made.

The pit-constrained Mineral Resources were used to derive the Mineral Reserve estimate presented in Table 1-2. Mineral Reserves were classified in accordance with the 2014 CIM Definition Standards. Modifying factors were applied to the Measured and Indicated Mineral Resources to convert them to Proven and Probable Mineral Reserves. This was accomplished with a mine production plan based on selected areas >900 ppm generating six pit phases to support a target plant feed rates of 7,500 tonnes per day (t/d) for the first four years (Project Phase 1), 15,000 t/d for the remainder of the Project.

QP Lane is not aware of any known legal, political, environmental, permitting, title, taxation, socio-economic, marketing, mining, metallurgical, or other factors that would further materially affect the Mineral Reserve estimate, other than what is described in this Report.

## 1.11 Mining

The deposit will be mined using dozers with a ripper shank(s), trucks, and shovels. The broken clays will be placed into windrows of loose material for drying within the pit. The consolidated sediments are free digging. No drilling or blasting will be required. After several days of drying, the windrows will be loaded into haul trucks and hauled to a horizontal stacker and ultimately to a run-of-mine (ROM) stockpile located at the processing plant.

Mineralized low-grade and waste material will be excavated using trucks and loaders and hauled to low-grade and waste stockpiles, respectively. Some selective waste material will be backfilled into the sequenced pit phases to prepare the bottoms of these pits for construction of lined tailings storage facilities. Some select low-grade material will be used to construct 30 cm-thick compacted clay liners for waste and low-grade material stockpiles.

**Table 1-2: Clayton Valley Mineral Reserve Estimate**

Domain	Tonnes Above Cut-off (millions)	Li Grade (ppm)	Li Contained (Mt)	LCE (Mt)
<b>Proven</b>				
Tuffaceous Mudstone	8.68	1,159	0.010	0.054
Claystone Zone 1	122.34	1,135	0.139	0.739
Claystone Zone 2	111.19	1,161	0.129	0.687
Claystone Zone 3	24.18	1,140	0.028	0.147
Siltstone	0.00		0.000	0.000
<b>Total</b>	<b>266.39</b>	<b>1,147</b>	<b>0.306</b>	<b>1.626</b>
<b>Probable</b>				
Tuffaceous Mudstone	0.01	1,147	0.000	0.000
Claystone Zone 1	8.67	1,123	0.010	0.052
Claystone Zone 2	7.26	1,190	0.009	0.046
Claystone Zone 3	5.32	1,234	0.007	0.035
Siltstone	0.00		0.000	0.000
<b>Total</b>	<b>21.26</b>	<b>1,174</b>	<b>0.025</b>	<b>0.133</b>
<b>Total Proven and Probable</b>	<b>287.65</b>	<b>1,149</b>	<b>0.330</b>	<b>1.759</b>

1. The effective date of the Mineral Reserve Estimate is April 29, 2024. The QP for the estimate is Ms. Terre Lane, MMSA, an employee of GRE and independent of Century.
2. The Mineral Reserve estimate was prepared in accordance with 2014 CIM Definition Standards and 2019 CIM Best Practice Guidelines.
3. Mineral Reserves are reported within the final pit design at a mining cut-off of 900 ppm. The mine operating cost is \$5.44/t processed, processing cost of \$40.9/t processed, G&A cost of \$2.68/t processed and a credit for the NaOH sales of \$28.95/t processed. The NaOH sales credit is proportionally applied to all the operating costs to get appropriate costs for the cut-off grade calculation. The cut-off grade considers a mine operating cost of \$2.22/t moved, a process operating cost of \$16.69/t processed, a G&A cost of \$1.09/t processed, process recovery of 78% and a long-term lithium carbonate price of \$24,000/t LCE.
4. The cut-off of 900 ppm is an elevated cut-off selected for the mine production schedule as the elevated cut-off is 4.5 times higher than the break-even cut-off grade.
5. Mineral Reserve figures have been rounded.
6. One tonne of lithium=5.323 tonnes lithium carbonate.

Mining will progress from the southwest where mineralized clays outcrop and progress to the northeast where higher-grade clays dip underneath low-grade and waste materials. This scheduling approach results in limited handling of low-grade and waste material early in the project life.

The final pit design includes six pit phases based on target plant feed rates of 7,500 t/d in the first four years, 15,000 t/d for the remainder of the Project, resulting in a mine life of 62 years.

## 1.12 Recovery Methods

The process design was developed from metallurgical test work specifically conducted on material from the Project. The plant availability will be 92% and has a process capacity ranging from an initial 7,500 t/d process feed during years 1 through 4 to 15,000 t/d during subsequent years. Estimated production of lithium carbonate ranges from 36 t/d to 72 t/d.

ROM material delivered to the stockpile is first passed through a roll crusher followed by high pH attrition scrubbing prior to hydrochloric acid leaching. The feed material will be leached for four hours before being neutralized with sodium hydroxide to precipitate impurities. Neutralized slurry is filtered and dry stacked in the TSF. The filtrate, or pregnant leach solution (PLS), is pumped through polishing filters before flowing to the DLE circuit for purification. PLS is pumped through two polishing filters arranged in parallel before advancing to the DLE circuit for extraction. Lithium is eluted from the resin, and the barren solution is sent to a neutralization stage where calcium and magnesium are precipitated.

Lithium-rich eluate solution from the DLE circuit is passed through a reverse osmosis filter to remove water and sent to oxalate precipitation to remove any further impurities and is then ultra-filtered at 0.5 microns.

Lithium in solution is further concentrated in two stages by using a nano-filtration system to achieve the optimal lithium concentrations required in the lithium precipitation stage. At the precipitation reactors, soda ash is added to precipitate lithium in the form of a lithium carbonate slurry. The slurry is then filtered, washed, dried, milled, and bagged to produce lithium carbonate as the final product.

The chlor-alkali plant will produce sodium hydroxide and hydrochloric acid that are regenerated from the leach barren solution and used as pH control and leaching reagents in the production of lithium carbonate. The chlor-alkali plant is sized according to acid requirements of the Project and ranges from an initial 450 t/d to 900 t/d of hydrochloric acid (HCl) at 100% basis.

Power required for the process facilities will be supplied via power lines from the electrical grid.

## 1.13 Project Infrastructure

The Project areas are located near existing and planned infrastructure.

Access to the Silver Peak site will be via a new 1.8-kilometer (km) long road connecting to the existing county road to Silver Peak. The terrain around the mine and plant site allows easy access for construction of internal roads and facilities.

Key elements of the process plant facilities are the ROM stockpile, attrition scrubbers, leach and neutralization tanks, pressure filters, DLE and lithium carbonate plants, reverse osmosis (RO) systems, and chlor-alkali facility.

Water supply for Silver Peak is designed based on a 5- to 7-km long pipeline from a source southeast of the Project.

The Project design also includes on-site water storage and distribution, runoff diversions and ponds, as well as reagent and fuel storage.

The TSF was designed in six phases to hold 288 million (M) t of tailings material. The TSF was planned for dry stacking filter cake from the filtration plant with the tailings placed by conveyor on a geomembrane liner. TSF Phases 1 and 2 will be constructed on the ground surface east of the open pit mine. TSF Phases 3 to 6 will be constructed as a combination of in pit fill and ground surface to form one TSF upon completion.

Power supply will be provided from the grid and regional electric utility. The anticipated average electrical loads range from approximately 60 megawatts (MW) in Project Phase 1, to 120 MW in Project Phase 2.

## **1.14 Marketing and Contracts**

Current commodity market research including reports from Benchmark Mineral Intelligence (Benchmark), Global Exchange & Trading Inc. (Global Exchange), and DOB Energy were used to assess the long-term prices for lithium carbonate and sodium hydroxide, respectively. For lithium, a supply deficit is forecast by 2027 given the worldwide transition to electric vehicles (EVs) and use of lithium in lithium-ion batteries and stationary battery storage. In the US, growth in the demand for sodium hydroxide is linked to the growth in US Gross Domestic Product.

The lithium carbonate price used to estimate Mineral Resources and Mineral Reserves, and in the economic analysis for the Project is \$24,000/t as is the case in the previous FS.

The sales price for sodium hydroxide used in the economic analysis is \$750/ dry metric tonne (dmt). These prices are used for the base case in this Report and are free on board (F.O.B.) the Project. The price used is approximately 20% below current western United States price.

There are currently no contracts or sales agreements in place for mining, concentrating, refining, transportation handling, hedging, forward sales contractors or arrangements. Century has a non-binding MOU for the sale of sodium hydroxide which is anticipated to place a significant portion of the excess sodium hydroxide produced by the Project.

## **1.15 Environment, Permitting and Social Considerations**

The baseline environmental surveys have been conducted in preparation for National Environmental Policy Act (NEPA) compliance through the BLM. Initial meetings have been held with the BLM and other federal and state agencies to initiate the permitting process with the BLM including NEPA compliance.

Several agencies will require permits and approvals. The primary ones being the BLM and Nevada Division of Environmental Protection (NDEP). Following approval of baseline data, a Plan of Operations (PoO) will be submitted with its approval initiating the NEPA process. Compliance with NEPA will involve the completion of an Environmental Impact Study (EIS) and issuance of the Record of Decision by the BLM that is expected to take up to 24 months. NDEP will be responsible for issuance of the other major State permits including the Water Pollution Control Permit (WPCP), Reclamation Permit, Air Quality Operating Permit, and other minor permits.

Given the current mining activity in Esmeralda County, additional mining in the area is likely to have a positive impact on the economy. Potential risks to the socioeconomic resources would be the ability for the local infrastructure to support the added workforce in the area.

Consultation with Native American Tribes is generally conducted as a government-to-government process while other community relations activities occur during public scoping and public comment periods associated with the NEPA process.

Reclamation and closure activities will include several activities to provide chemical and physical stability of the mine facilities that will remain, including the TSF, waste rock storage facilities (WRSFs), roads, ponds, and a partially backfilled pit. Post-closure monitoring will continue for a minimum of five years after closure. Based on the current design, the Nevada Standardized Reclamation Cost Estimator (SRCE) was used to develop a preliminary reclamation cost estimate of \$13.4 million.

## **1.16 Capital and Operating Costs**

### **1.16.1 Capital Costs**

A Class 3 capital cost estimate was prepared in accordance with AACE International Guidelines Practice No. 47R-11 with an expected accuracy to be within +/- 15% of the Project's final cost, including contingency. Costs are developed based on first quarter 2026 \$US dollars.

The capital cost is \$997 million for the Project's initial phase of development, which is followed by one additional phase of expansion as summarized in Table 1-3. The Project Phase 2 capital costs represent the expansion of the process facilities and infrastructure established in Project Phase 1 with a capital cost of \$660 million.

Sustaining capital is included in the operating cost estimate.

**Table 1-3: Capital Cost Summary**

Description	Cost (\$M)	
	Project Phase 1 (Initial)	Project Phase 2 (Years 5)
	7,500 t/d	Expansion to 15,000 t/d
Mining	23.5	43.7
Site Preparation and Roads	3.0	4.5
Process Facilities	611.6	341.1
Infrastructure	167.5	135.2
Working Capital	14.0	0.0
Owner's Costs	88.2	62.8
EPCM	24.1	19.5
Freight	4.7	3.4
Contingency	60.7	50.0
<b>Total Capital Cost</b>	<b>997.4</b>	<b>660.2</b>

Note: Figures may not sum due to rounding.

## 1.16.2 Operating Costs

The average annual operating cost is estimated at \$73.8 million or \$30.59/t of plant feed for Project Phase 1 to \$121.4 million or \$22.16/t of plant feed for Project Phase 2. Average operating costs for each phase are summarized in Table 1-4.

**Table 1-4: Operating Cost Summary**

Cost Area	Avg \$(000s)/a	Avg \$/t feed	Avg \$/t LCE	% of Total
<b>Project Phase 1</b>				
Mining	12,648	5.25	1,092	17
Process	22,272	9.24	1,829	30
Process (chlor-alkali plant)	33,254	13.79	2,730	45
G&A	5,583	2.32	458	8
<b>Total</b>	<b>73,757</b>	<b>30.59</b>	<b>6,110</b>	<b>100</b>
<b>Project Phase 2</b>				
Mining	20,056	3.66	685	16
Process	29,981	5.48	1,065	25
Process (chlor-alkali plant)	65,353	11.94	2,322	54
G&A	5,993	1.09	213	5
<b>Total</b>	<b>121,383</b>	<b>22.16</b>	<b>4,285</b>	<b>100</b>

Note: Figures may not sum due to rounding.

## 1.17 Economic Analysis

The results of the economic analyses discussed in this section represent forward-looking information as defined under Canadian securities law. The results depend on inputs that are subject to several known and unknown risks, uncertainties, and other factors that may cause actual results to differ materially from those presented here. Information that is forward-looking includes the following:

- Mineral Resource and Mineral Reserve estimate
- Assumed commodity prices
- The proposed mine production plan
- Projected mining and process recovery rates
- Proposed processing method
- Proposed capital and operating costs
- Assumptions as to environmental, permitting, and social risks.

Additional risks to the forward-looking information include the following:

- Changes to costs of production from what are estimated
- Unrecognized environmental risks
- Unanticipated reclamation expenses
- Unexpected variations in quantity of mineralized material, grade, or recovery rates
- Geotechnical or hydrogeological considerations during mining being different from what was assumed
- Failure of mining methods to operate as anticipated
- Failure of plant, equipment, or processes to operate as anticipated.

The economic analysis of the Project was undertaken using a discounted cash flow (DCF) model in Microsoft Excel using only the first 40 years of Project life. Cash flows in the model were based on second-quarter 2025 US dollars with no escalation of costs or revenues. The DCF model uses a base-case discount rate of 8%. Financing costs were excluded from the valuation.

The analysis included generating gross sales from lithium carbonate and sodium hydroxide, before-tax cash flow, which is gross sales minus operating costs, and after-tax cash flow, which is before-tax cash flow minus taxes and capital costs. The net present value (NPV) at a discount rate of 8% was calculated to determine the DCF, and internal rate of return (IRR) was calculated from the DCF.

The economic analysis of the Project generates positive after-tax results. The results show an after-tax NPV of \$4.007 billion at an 8% discount rate, an IRR of 27.4% and a payback period of 4.9 years.

The Project is most sensitive to fluctuations in the lithium price.

## **1.18 Interpretation and Conclusions**

The Project is based on the mining and processing a large flat-lying, lithium claystone deposit. Mineral Reserves support a mine life of over 40 years. A chloride leaching process is used to extract lithium from the claystone followed by DLE, concentration, purification and precipitation of the lithium-bearing solution to recover the lithium into a marketable product.

The Project is designed for a two-phase production plan which will generate a life-of-mine (LOM) average of 26 Mt per annum (t/a) of lithium carbonate.

Positive cash flows are generated over each of the two production phases, including the initial development in Project Phase 1, sized at 7,500 t/d of mill feed, and Project Phase 2, at 15,000 t/d.

The after-tax discounted cash flow analysis results in a positive 27.4% IRR and a \$4.01 billion NPV-8% at a lithium carbonate price of \$24,000/t.

The Project is a potential source of lithium, a strategic commodity, for the US domestic market. Based on these results the Project merits detailed engineering and permitting. Further work is noted to address identified opportunities and risks.

## **1.19 Opportunities and Risks**

The following opportunities have been identified for the Project.

- The Project is a potential new source of lithium in the US. The US government has designated lithium a strategic mineral, therefore, the Project may have opportunity for accelerated permitting, access to designated financial support programs, and possible tax incentives.
- Although the sales prices of lithium carbonate and sodium hydroxide are subject to market fluctuations, forecasts indicate growth in domestic U.S. demand supporting the price assumptions in this Report.
- The Project has a large open area south of the pit which has been identified as suitable for development of a solar power field. A preliminary assessment identified the potential for constructing a 120 MW solar field at this location.
- Century holds a 256-ha geothermal lease 7 km northeast of the Project. The site requires exploration drilling to determine geothermal energy potential. There are two other active geothermal exploration/development projects in the area which also represent possible additional sources of power supply.
- A new 500-kilovolt (kV) powerline called "Greenlink" will be built on the eastern edge of the property. This powerline will have sufficient power for all Project activities. A provision in the operating cost was added to tie into the Greenlink powerline.
- Costs for the TSF could be reduced if the geomembrane liner is replaced or augmented

with non-permeable materials from the Property, if determined acceptable with engineering and permitting requirements.

- The capital costs associated with concrete and foundations may be reduced by locating a source of aggregate closer to the Project.
- It may be possible to produce rare earth elements (REEs) as a by-product of process operations.
- It may be possible to produce a salable clay for use in drilling muds as a by-product of the process operations.

The following risks have been identified for the Project.

- The Project is vulnerable to changes in the general economy, and especially, to the rate of adoption of battery metals for use in the EV market and energy storage. Changes in the sale price of lithium carbonate and sodium hydroxide may drop due to market fluctuations, possible oversupply from new and existing producers, and/or reduction in demand.
- Permitting constraints or delay in the NEPA approval process may occur due to public or non-governmental organization (NGO) opposition to NDEP and/or BLM permitting processes and approvals.
- The Project could be impacted by inability to secure a favorable power purchase agreement and/or limited by the power available for use at the Project.
- Average density was used in the estimation of Mineral Resources and Reserves. Actual tonnages may vary if densities differ locally between the different clay units. Lower than expected process recoveries for lithium and/or higher reagent consumptions may occur due to unforeseen changes in the estimated Mineral Reserves.
- Samples of tailings materials tested for the TSF design should be similar to but may not exactly reflect the current process design.
- Strength values of liners in TSF design are based on conservative published data, not test work. Because of this, additional test work may be required for final engineering and/or permit requirements.
- Geotechnical investigations are limited to shallow surface borings, test pits, and geophysical surveys. Additional test work may be required in detailed engineering to support the foundation designs for the process facility and TSF and pit slopes.

## **1.20 Recommendations**

Further work to advance the Project prior to detailed engineering and permitting is estimated at a cost of \$5.5 million. The recommendations include:

- A supplemental infill drilling program is recommended. The goals of the program would be 1) collect additional data to optimize the Project's Phase 1 economic model, 2) collect material for density test work, and 3) collect material for geotechnical test work.

- Additional pilot testing is recommended to be completed on deeper material from claystone zones 1 and 2 to further confirm the metallurgy of these materials at the Project. Additional improvement in leaching and neutralization stages may be possible through the review of leach kinetics to optimize agitator design and reduce energy requirements.
- Additional geotechnical data is recommended to be collected to supplement the existing characterization data and further support the tailings storage facility (TSF) design and foundation, foundation infrastructure requirements for the processing plant, and traffic management a load bearing capacity of materials in the pit.
- A Plan of Operations (PoO) is recommended to be completed and filed with the Bureau of Land Management (BLM) in Q1 2026. Following acceptance of the PoO, the BLM will initiate the National Environmental Policy Act (NEPA), for projects of this size, the level of NEPA analysis required is typically an Environmental Impact Statement (EIS). It is also recommended the permitting process with the State of Nevada be initiated at the Project and proceed concurrently with the federal permitting process.
- Infrastructure related recommendations include: 1) Engage NV Energy to initiate preliminary engineering studies for the interconnection of the Project to the electrical grid at a mutually selected Point of Delivery (POD). 2) The water source for the Project should be defined with a drilling program using piezometers and other pumping tests available to best plan a well field for future use under the Company's water rights permit in the Clayton Valley Basin. 3) Locate local sources of barrow material for construction use at the Project.
- Given the advanced stage of the Project, the QPs make the following recommendations to support the concurrent advancement of permitting, detailed engineering, and remaining technical work programs. The recommended work is organized into two phases; Phase A activities are recommended to proceed immediately in parallel with the PoO filing and NEPA process; Phase B activities are recommended to commence following initiation of the NEPA process and in support of detailed engineering.

## 2.0 INTRODUCTION

This report is an update of NI 43-101 Technical Feasibility Report for Clayton Valley Lithium Project, Esmeralda County, Nevada, USA. This report will make appropriate changes for time and technical updates, when appropriate. Areas that are not changed from the previous technical report will be identified appropriately.

Dr. Richard W. Jolk, Mineral Properties Development, Inc. (MPDI) and Ms. Terre Lane, Global Resource Engineering Ltd (GRE) were retained by Century to help prepare an update to the 2024 FS for the Clayton Valley deposit and prepare an updated NI 43-101 technical report for the Project.

### 2.1 Terms of Reference

This Report was prepared to support updated metallurgical and cost estimates associated with the previous feasibility entitled "NI 43-101 Technical Report on the Feasibility Study of the Clayton Valley Lithium Project", Esmeralda County, Nevada, USA.

Mineral resource and reserve estimates were prepared in accordance with the CIM Best Practice Guidelines and reported in accordance with the CIM Definition Standards.

All measurements used for the Project are metric units unless otherwise stated. Tonnages are in metric tonnes, and grade is reported as parts per million (ppm) unless otherwise noted.

All currency amounts in this FS are presented in US dollars.

The project is planned to produce lithium carbonate as its primary product and includes the provision for the sale of surplus sodium hydroxide from its on-site chlor-alkali plant. For reporting purposes, all production is quoted in terms of lithium carbonate equivalent (LCE).

In preparing this Report, the Qualified Persons have relied upon information, opinions, and interpretations provided by other experts and Qualified Persons in areas including, but not limited to, land tenure, metallurgy, permitting, environmental matters, and legal agreements. The Qualified Persons have no reason to believe that any of the information relied upon is materially inaccurate or incomplete for the purposes of this Report.

### 2.2 Qualified Persons

The following individuals are Qualified Persons (QP) for their current content and meet the definition as required by NI 43-101, Standards of Disclosure for Mineral Projects:

- Mr. Richard W. Jolk, Colorado P.E. 0024448, Principal, MPDI

Mr. Jolk, P.E., PhD, is an independent consultant who has reviewed all work completed on the previous feasibility study and assumes responsibility for the preparation of this current report with reliance on, and support from the various contributing Qualified Persons (QPs) in their respective technical disciplines. This review encompasses evaluation of the original feasibility study including sections not needing to be updated in the current report.

The previous feasibility study was authored by Mr. Todd S. Fayram of Continental Metallurgical Services. Following Mr. Fayram's appointment as Senior Vice President – Metallurgy for Century Lithium in April 2024, Mr. Jolk was retained to review those sections of work for which Mr. Fayram had previously been responsible and additional updated metallurgical work completed under Mr. Fayram's direction.

Particular attention was given to areas reflecting improved metallurgical test work results, including a detailed review of each unit operation forming the basis of the final process design. The review encompassed design criteria, process flowsheets, mass balances, major equipment lists, and equipment selection within the overall process circuit.

- Mr. Todd S. Fayram, MMSA 01300, Senior Vice President Metallurgy, Century Lithium Corp., takes responsibility for the update of the mineral processing and metallurgical testing and parts of the data verification, summary, introduction, mine and process capital and operating costs, economic analysis, parts of the data verification, summary, introduction, interpretation and conclusions, and recommendations relating to those areas.

The following individual QP's who were responsible for portions of the 2024, NI-43-101 report that remains unchanged. They meet the definition of QP as required by NI 43-101, Standards of Disclosure for Mineral Projects:

- Ms. Terre A. Lane, Mining and Metallurgical Society of America (MMSA) 01407, Society for Mining, Metallurgy & Exploration (SME) Registered Member 4053005, Principal Mining Engineer, GRE
- Dr. Hamid Samari, MMSA 01519, Principal Geologist, GRE
- Mr. Todd S. Fayram, MMSA 01300, Senior Vice President Metallurgy, Century
- Mr. Haiming (Peter) Yuan, PE, PhD, Principal Geotechnical Engineer, SRK

Ms. Lane takes responsibility for property description and location, accessibility, climate, local resources, infrastructure and physiography, Mineral Resource estimation, Mineral Reserve estimation, mining methods, market studies and contracts, mining capital and operating costs, economic analysis, and parts of the data verification, summary, introduction, interpretation and conclusions, and recommendations relating to those areas.

Dr. Samari takes responsibility for history, geological setting and mineralization, deposit types, drilling, 2022 sample preparation, analysis and security, and parts of the data verification, summary, introduction, interpretation and conclusions, and recommendations relating to those

areas.

Mr. Fayram takes responsibility for mineral processing and metallurgical testing and parts of the data verification, summary, introduction, mining capital and operating costs, economic analysis, parts of the data verification, summary, introduction, interpretation and conclusions, and recommendations relating to those areas.

Mr. Yuan takes responsibility for project infrastructure relating to the dry stack TSF, environmental studies, permitting, and social or community impact, and parts of the data verification, summary, introduction, interpretation and conclusions, and recommendations relating to those areas.

## **2.3 Site Inspections**

Due to significant physical issues, Mr. Jolk has not visited the Property. All other qualified persons have visited the property, with Mr. Fayram visiting the property as soon as November, 16, 2025. Because of physical health issues, Mr. Jolk has reviewed satellite photos, local photos and reviewed numerous issues associated with the area.

Site Inspections of previous qualified persons:

Ms. Terre A. Lane, MMSA 01407, Society for Mining, Metallurgy & Exploration (SME) Registered Member 4053005 conducted a site visit to the Property on 21 March 2019 and from 31 May to 1 June 2022. The visit comprised access to the Property from Tonopah and Goldfield, Nevada. Ms. Lane observed active drilling at the Project site and inspected composited drill samples at the core storage facility in Silver Peak, Nevada. While on site, Ms. Lane recommended geotechnical samples be collected from drill core at select intervals and requested an additional hole be drilled.

Dr. Hamid Sumari, MMSA 01519 conducted a site visit to the Property from 31 May to 1 June 2022. The visit comprised access to the Property from Tonopah, Nevada. The examination of surface geology, location and confirmation of 2022 drill hole collars, and visual inspection of sonic samples sorted at Century's sample storage facility near the Tonopah Airport. While at site Dr. Sumari collected 17 samples from the 2022 drilling campaign for check assay.

Mr. Todd Fayram, MMSA 01300 has visited the Property numerous times over the past five years. His most recent visit to the Property was 16 November 2025. During his visits, he has identified potential plant layout areas, water issues, assessed road access challenges and has participated in numerous site tours with other QP's and Engineers during engineering reviews. Over the past four years, Mr. Fayram has constructed and managed the Century pilot plant operation located in Amargosa Valley, approximately 160 km southeast of the project site. Mr. Fayram is also the owner and Principal of Continental Metallurgical Services, LLC. (CMS) (circa 2003) which maintains an office and laboratory in Butte, Montana, where CMS has worked on and completed the Century metallurgical test work from 2017 to 2024.

Mr. Peter Yuan, P.E. visited the Property twice in 2022. His most recent visit to the Property was 3 August 2022. During his visits, Mr. Yuan checked the site conditions of the planned TSF location and vicinity, reviewed progress of the geotechnical field investigation and inspected the subsurface samples retrieved from the investigation. Mr. Yuan also visited the core storage facility in Reno in April 2022 when he reviewed core handling, logging, sampling, and storage procedures of select core holes.

Ms. Teresa Conner, Conner and Associates LLC, has visited the property numerous times. Her most recent visit to the site was 19 January 2024. During her visits, Ms. Conner reviewed the progress of the numerous environmental studies and been on-site meetings with potential responsible parties.

## **2.4 Effective Date**

The original NI-43101 feasibility study had the following effective dates:

- Mineral resource estimate – April 29, 2024
- Mineral reserve estimate – April 29, 2024.

The effective date of this updated report is January 3, 2026.

## **2.5 Sources of Information**

Reports and documents listed in Section 27 were used to support the preparation of this Report. Additional information pertaining to each specific areas in this feasibility study as requested from Century personnel is referenced in Section 3.

Key sources of information for this Report include the following technical reports:

- Fayram, T. S., Lane, T. A., Samari, H., Yuan, P., Baluch, P., Drake, and A. Kossari, F. NI 43-101 2024. Technical Report Feasibility Study Clayton Valley Lithium Project, Esmeralda County, Nevada. Effective date August 5, 2024.
- Fayram, T. S., Lane, T. A., and Brown, J. J., 2021. NI 43-101 Technical Report Prefeasibility Study Clayton Valley Lithium Project, Esmeralda County, Nevada. Effective date August 5, 2020.
- Fayram, T. S., Lane, T. A., and Kalmbach, D. W., 2020. NI 43-101 Technical Report Prefeasibility Study Clayton Valley Lithium Project, Esmeralda County, Nevada. Effective date May 19, 2020.
- Lane, T., Harvey, T., Fayram, T., Samari, H., and Brown, J. J., 2018. Preliminary Economic Assessment Technical Report, Clayton Valley Lithium Project, Esmeralda County, Nevada., Effective date September 4, 2018.
- Lane, T., Harvey, T., Samari, H., and Brown, J. J., 2018. Mineral Resource Estimate NI 43-101 Technical Report, Clayton Valley Lithium Project Esmeralda County, Nevada, USA.

- Effective date May 1, 2018.
- Marvin, R. D., 2018. Dean Lithium Project National Instrument 43-101 Technical Report.  
Effective date February 3, 2018.

## 3.0 RELIANCE ON OTHER EXPERTS

The QPs have relied upon other expert reports, which provided information regarding property claim tenure, property contracts and agreements, royalties and taxation, and marketing.

### 3.1 Legal Status

The QPs have relied on other experts for property ownership and mineral tenure. Regarding mineral tenure to the property set forth in Sections 4.2 and 4.3, the QPs have relied entirely, and without independent investigation, on the legal opinion of Thomas Erwin, an attorney with Erwin Thompson Faillers and reliance on the following document: Erwin, T.P. (6 June 2024). Letter from Erwin Thompson Faillers [letter to Ms. Terre Lane].

This information is used in support of the property description and mineral rights and tenure, royalties, and any obligations that must be met to retain the property described in Section 4.

### 3.2 Taxation

The QPs have not independently reviewed the taxation information. The QPs have fully relied upon, and disclaim responsibility for, information supplied by Century's tax consultant Ben Haberman. Mr. Haberman provided specific information related to taxation as contained in the following document: Haberman, B. (13 May 2024). Taxation for Clayton Valley Feasibility Study Economic Model [letter to Ms. Terre Lane].

This information is used in support of the sub-section on tax information and the tax inputs to the financial model that provides the estimated after-tax analysis in Section 22, and the Mineral Reserve estimate in Section 15.

### 3.3 Marketing

The QPs have not independently reviewed the marketing and commodity pricing information for lithium carbonate and sodium hydroxide. The QPs have fully relied upon, and disclaim responsibility for, information supplied by Benchmark Mineral Intelligence (Benchmark), DOB Energy, and Global Exchange related to marketing, including lithium carbonate and sodium hydroxide pricing information, respectively through the following documents:

- Benchmark. (2024). Lithium Price Forecast, Q1 2024.
- DOB Energy (2025). Lithium Price Forecast
- Global Exchange. (February 2024). US Chlor-alkali Market Update.

Benchmark is a well-known and established price reporting agency that specializes in price forecasting for a variety of metals and commodities including lithium carbonate.

The lithium carbonate price forecast is dependent on future demand a large part of which is battery demand for industry and vehicular transformation to electric energy. Changes in global economies and public perception of these industries will affect demand and prices.

DOB Energy is a trusted news outlet and has developed several pricing forecasts that have proven to be of value to the price forecasting of lithium carbonate.

Similarly, Global Exchange is a well-known supplier and established forecaster of sodium hydroxide demand and prices.

QP Jolk visited the websites of the above companies as well as the websites of other companies that offer price forecasts and found they had a similar outlook.

This market research information is used in Section 14 as support for the commodity price input and marketability of lithium carbonate when establishing reasonable prospects for eventual economic extraction, in Section 15 for support of the assumptions used in mine planning, and in Section 22 to support the lithium carbonate and sodium hydroxide pricing.

## 4.0 PROPERTY DESCRIPTION AND LOCATION

### 4.1 Location

The open pit and processing facility Property is centered near 452,800 m east, 4,177,750 m north, WGS84, zone 11 north datum, in central Esmeralda County, Nevada. The Property is located 333 km northwest of Las Vegas, Nevada, and 354 km southeast of Reno, Nevada (Figure 4-1). The regional towns of Tonopah and Goldfield are 66 km northeast and 38 km east of the Property, respectively, and the small community of Silver Peak lies 10 km west of the Property. The Property lies within township 2 south, range 40 east and township 3 south, range 40 east, Mt. Diablo Meridian. Access to the Property from Tonopah is by traveling 35 km south on US Highway 95, then 30 km west on Silver Peak Road.

Access to the Project area is considered adequate for exploration and development activities. No known surface access restrictions have been identified that would materially impede the development of the Project, subject to the receipt of applicable approvals.

### 4.2 Mineral Rights and Tenure

The Property comprises 276 unpatented placer mining claims and 227 unpatented lode mining claims listed in Table 4-1, detailed in Appendix A and shown in Figure 4-2. The claims are 100% owned by Cypress Holdings (Nevada) Ltd. a wholly owned subsidiary of Century, cover 2,286 ha and provide Century with the rights to access all brines, placer, and lode minerals on the claims. The claims lie within portions of sections 2, 10, 11, 14-17, 20-23, 26-28, and 32-35 of township 2 south, range 40 east and section 2, 3 and 5 of township 3 south, range 40 east, Mt. Diablo meridian in the eastern portion of Clayton Valley, Nevada. All lode and placer claims are unpatented US Federal mining claims administered by the Bureau of Land Management (BLM).

The Property comprises mining claims acquired through purchase from property vendors and mining claims acquired by Century through the staking of open ground.

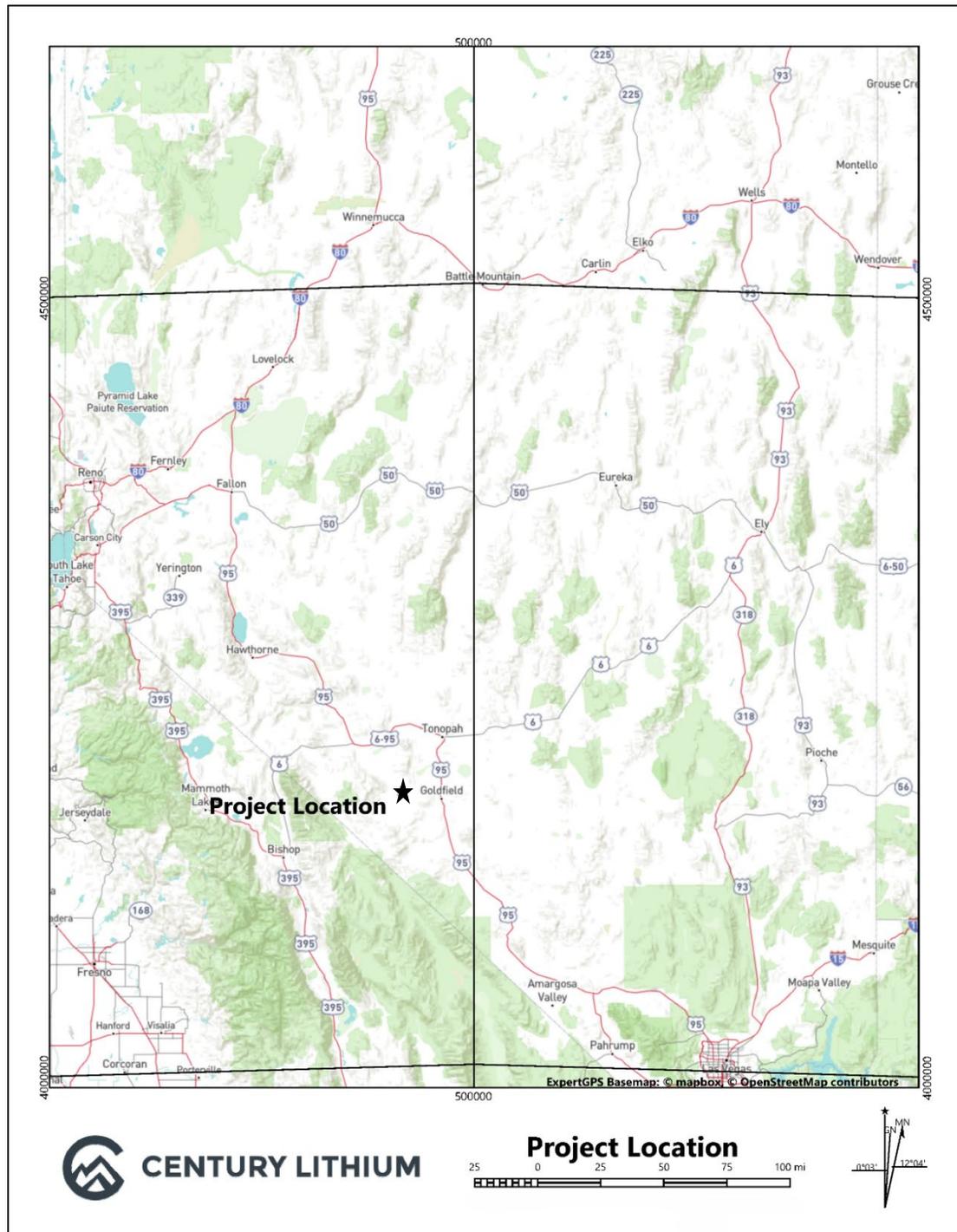
- Glory property: Angel, Glory, McGee, JLS and Longstreet claims
- Dean property: Dean and Clay claims
- Enertopia property: Dan and Steve claims
- Century: DX, DLX, GX, GLX, NDL and NDP claims.

Most of the Property is controlled with a combination of placer and lode claims while a portion of the Property is controlled only with placer claims. The placer claims are 8.09 ha in size and staked as aliquot parts of a surveyed section, as required under placer mine claim regulations. The lode claims are a maximum of 183 m x 457 m in size or 8.36 ha each. The mineral rights to

the lithium in the Mineral Resources and Mineral Reserves are covered by and controlled entirely by the lode claims.

The Property is comprised of mining claims acquired through purchase from property vendors and mining claims acquired by Century through the staking of open ground.

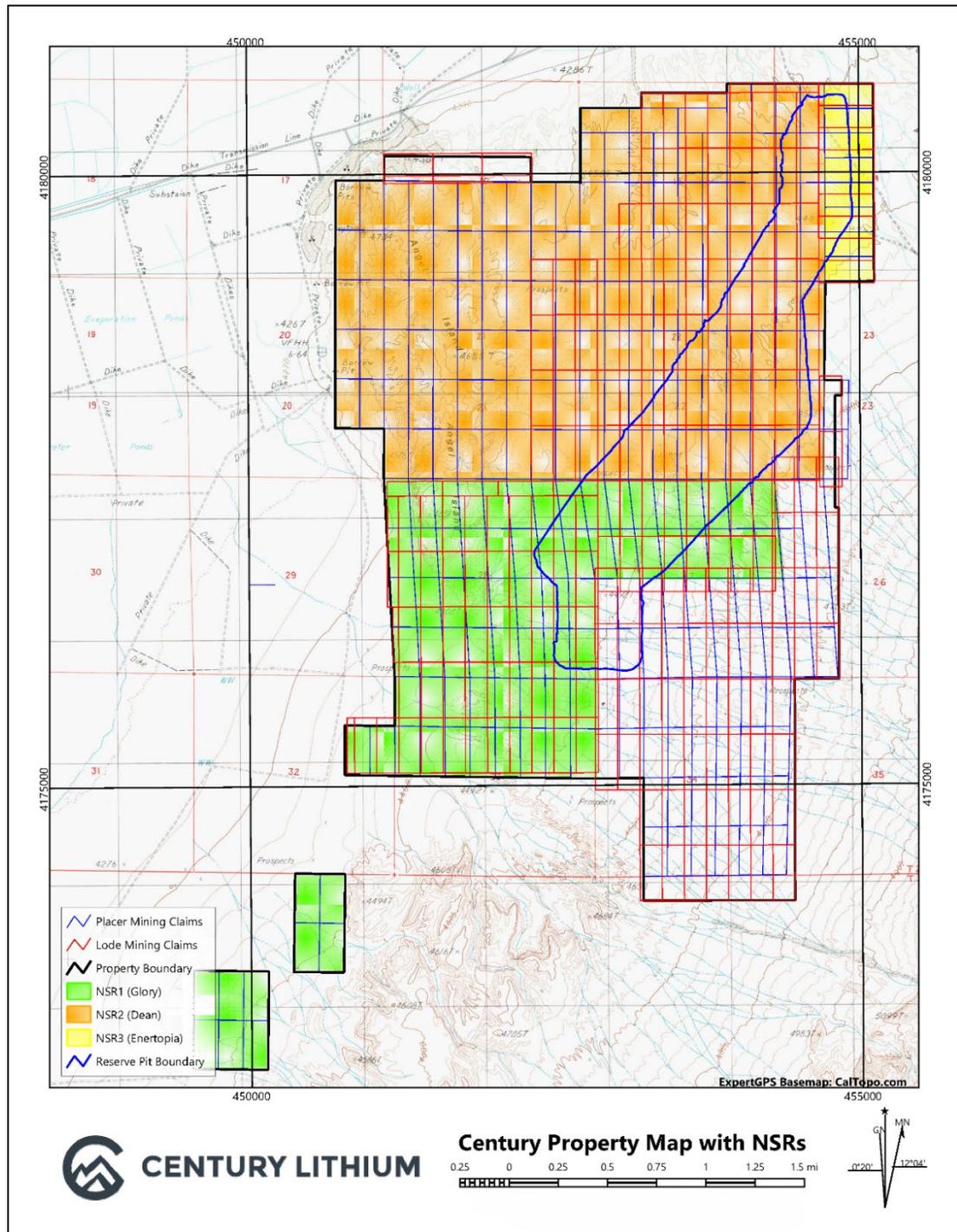
- Glory property: Angel, Glory, McGee, JLS and Longstreet claims
- Dean property: Dean and Clay claims
- Enertopia property: Dan and Steve claims
- Century: DX, DLX, GX, GLX, NDL and NDP claims.



**Figure 4-1: Project Location Map (Source: Century, 2023)**

**Table 4-1: Active Mining Claims (Sequentially Ordered)**

Serial Number From	Serial Number To	Number of Claims
<b>Placer Claims</b>		
NV101330726	NV101330732	7
NV101332557	NV101332558	2
NV101333183	NV101333200	18
NV101333335	NV101333337	3
NV101333920	NV101333931	12
NV101378980	NV101378995	16
NV101379917	NV101379937	21
NV101388149	NV101388158	10
NV101475862	NV101475880	19
NV101476771	-	1
NV101553227	NV101553228	2
NV101554268	NV101554278	11
NV101554401	NV101554405	5
NV101739343	-	1
NV101783884	NV101783885	2
NV101850484	NV101850490	7
NV105234190	NV105234289	100
NV105290433	NV105290468	36
NV106301926	NV106301928	3
<b>Total Placer Claims</b>		<b>276</b>
<b>Lode Claims</b>		
NV101544583	NV101544600	18
NV101545389	NV101545401	13
NV101545664	NV101545684	21
NV101546706	NV101546724	19
NV101553229	NV101553242	14
NV101554264	NV101554267	4
NV101570738	NV101570758	21
NV101648143	NV101648158	16
NV101649338	NV101649358	21
NV101739334	NV101739342	9
NV101763412	NV101763421	10
NV101763801	NV101763821	21
NV101764201	NV101764213	13
NV101782338	NV101782358	21
NV106301910	NV106301915	6
<b>Total Lode Claims</b>		<b>227</b>



**Figure 4-2: Property Land Map with Claims and Royalties (Source: Century, 2023)**

The placer and lode claims require annual filing of Intent to Hold and cash payments to the BLM and Esmeralda County totaling \$200 per claim on or before September 1. Mill site claims require an annual maintenance fee totaling \$200 per claim on or before August 31. All claims are all in good standing with the BLM and Esmeralda County through June 30, 2025. The Mineral Resource and Mineral Reserve estimate defined and described in this Report fall entirely on Century's unpatented mining claims.

### **4.3 Royalties**

Multiple Net Smelter Return (NSR) royalties for lithium and other metals exist at the Property (Figure 4-2). They are related to the purchase of the Glory, Dean, and Enertopia properties. The NSRs are further detailed in Appendix A.

- NSR1 (Glory) is 3% on 627 hectares (ha) and can be bought down to 1% in return for \$2 million in payments to the original property vendor.
- NSR2 (Dean) is 3% on 1,100 ha and can be bought down to 1% in return for \$2 million in payments to the original property vendor.
- NSR3 (Enertopia) is two separate 1% NSRs for an aggregate of 2% on 65 ha, payable to royalty holding companies.

### **4.4 Environmental Liabilities**

There are no current environmental liabilities known to Century on the Properties. The Properties are greenfield sites. There are rare small-scale pits and trenches from historical exploration efforts for salt or other metals on the Properties. None of these very small disturbances appear to have any environmental liability.

Permitting of the Project has started under the BLM Fast 41 program. All necessary studies have been completed and accepted by the BLM. To meet the Fast 41 deadlines, a Plan of Operations (PoO) will be completed and filed in mid to late January 2026. Century is focused on meeting all Fast 41 deadlines.

Project exploration and development activities to date have been conducted under permits issued by the BLM and other applicable regulatory agencies. Based on the information available at the effective date of this Report, no known permitting conditions or regulatory constraints have been identified that would preclude the advancement of the Project as described herein.

### **4.5 Exploration Activities**

Exploration activities completed to date were conducted under permits issued by the BLM, utilizing a Notice of Intent in accordance with the 43 CFR 3809 Exploration Notice requirements.

Environmental and permitting considerations relevant to future exploration and potential project development are discussed in Section 20.

## **4.6 Significant Factors and Risks**

There are no known significant factors or risks that may affect Property access, title, or the right to perform work on the Property. The Property comprises unpatented US Federal mining claims administered by the BLM and the claims come with the right to access and conduct mineral exploration and mining under the guidelines and rules set forth in the General Mining Act of 1872, 30 U.S.C. §§ 22-42.

Additionally, according to the investment attractiveness index discussed in the 2022 Fraser Institute Annual Survey of Mining Companies (Mejia and Aliakbari, 2023), Nevada is ranked number one out of 62 jurisdictions in the “world ranking of investment attractiveness index for favorable mining jurisdictions for investment.

## 5.0 ACCESSIBILITY, CLIMATE, LOCAL RESOURCES, INFRASTRUCTURE AND PHYSIOGRAPHY

### 5.1 Accessibility

The Properties are accessed from Tonopah, Nevada by traveling 35 k on US Highway 95, then 31 km west on Silver Peak Road, a county-maintained road or 65 km west on US Highway 95 to the Junction of US highway 6. This road is paved up to the Project's entrance.

### 5.2 Climate

The climate of the Clayton Valley is hot in summer, with average high temperatures in mid-30°C range, and cool in the winter, with daily average lows between -8 to 0°C (Table 5-1). Precipitation is normally in the form of thunderstorms, which can be very strong and cause violent flooding even miles from the actual storm. Other precipitation events, including snowfall, are limited due to the nature of the rain shadow produced by the mountain ranges to the west. Snow cover in winter is rare, and year-round low humidity aids in evaporation. Windstorms are common all year but occur predominantly in the summer and fall. It is expected that any future mining operations in the Project area will be year-round.

**Table 5-1: Project Weather Information**

<b>Silver Peak, Nevada Average Weather Data</b>						
<b>Month</b>	<b>Jan</b>	<b>Feb</b>	<b>Mar</b>	<b>Apr</b>	<b>May</b>	<b>Jun</b>
Average high in °C	8	12	17	21	27	32
Average low in °C	-7	-4	0	3	9	14
Avg. precipitation in mm	10	9.5	13.5	12	9.5	9.5
<b>Month</b>	<b>Jul</b>	<b>Aug</b>	<b>Sep</b>	<b>Oct</b>	<b>Nov</b>	<b>Dec</b>
Average high in °C	37	35	30	23	14	8
Average low in °C	17	15	10	3	-3	-8
Avg. precipitation in mm	11.5	10	6.5	10	8	5.5

Source: [www.usclimatedata.com/climate/silverpeak/nevada/united-states/usnv0084](http://www.usclimatedata.com/climate/silverpeak/nevada/united-states/usnv0084)

### 5.3 Local Resources and Infrastructure

The Property that comprises the Project has sufficient rights to explore, develop, and mine the lithium mineralization present. There is adequate land to accommodate the infrastructure required to operate a mine and processing facility, including, buildings, roads, ponds, tailings, and waste storage areas. Existing access routes are considered suitable to support ongoing

exploration activities and are expected to be adequate to support future development activities, subject to routine upgrades and applicable approvals.

The local communities are of adequate size to accommodate required skilled labor with this labor generally available in Nevada. The existing power grid and lines will support the Project with necessary upgrades. Water resources are limited in the valley, though Century owns a water rights permit for appropriation of up to 2,183,260 m<sup>3</sup> of water per year. Options are available to acquire additional water if needed through rights acquisition, purchase, or other agreements.

Local resources available vary depending on distance from the Project. Silver Peak (population 88) is the closest census designated place (CDP) to the Project and consists primarily of housing, a post office, library, a restaurant/bar and a few other services. The next closest CDP is Goldfield (population 324), the Esmeralda County seat, which has housing, small stores, a restaurant, motel and government offices. Tonopah (population 2,493) is the Nye County seat and closest full-service town to the Project. It has housing, grocery stores, restaurants, lodging, banks, hardware stores and government offices. Employment in Tonopah consists of service industry, government, mining, and industrial jobs. Experienced processing and other technical labor should be available as the Project is in a region of active lithium brine extraction, precious metals mining, and solar power generation.

Infrastructure available includes paved and well-maintained gravel roads, power lines near the northern border of the Project, and substations at Silver Peak and east at Alkali Hot springs. NV Energy is constructing Greenlink West Project, a new 525-kilovolt (kV), electric transmission line, that will run from North Las Vegas to Reno. The project is in construction and is planned to run within 3 km west of the Project at Silver Peak and construct a substation near the junction of 265 north from Silver Peak and US Highway 95 10 kilometers to the east of Coaldale, NV.

## **5.4 Physiography**

The Property is located in the southwestern margin of the Basin and Range Province within the Walker Lane geologic trough. The Silver Peak valley has a total watershed area of 1,430 km<sup>2</sup> and the floor of the valley lies at an altitude of 1,317 meters above mean sea level (amsl). The surrounding mountains rise over a thousand meters above the valley floor, with the highest surrounding mountain, Silver Peak, at 2,859 amsl. The valley is bounded to the west by the Silver Peak Mountain Range, to the west and south and the Clayton Ridge to the northeast and southwest, and to the north and east by the Weepah Hills. There is no permanent surface water in the Clayton Valley; all watercourses are ephemeral and only active during periods of intense precipitation or spring snowmelt. At the project sites, the terrain is dominated by mound-like outcrops of mudstone and claystone, cut by dry gravel-filled washes across a broad alluvial fan. Access in the Properties in the areas of lithium mineralization is excellent due to the overall low relief of the terrain (Figure 5-1 and Figure 5-2). The terrain to the east increases in elevation

towards the sources of the alluvial fan on Clayton Ridge. The terrain in the northwestern third of the Property is dominated by a ridge of older sedimentary and volcanic rocks known as Angel Island.

Vegetation at the Property is found within five ecological site types, coarse gravelly loam, dry sodic terrace, loamy, loamy slope, and sodic loam. Various shrubs, grasses, forbs, herbaceous and cacti species are present across the Properties.



**Figure 5-1: Property Looking East Up Dry Wash – Clayton Ridge in Background (Source: Century, 2022)**

## 6.0 HISTORY

The first recorded mining activity in Clayton Valley was in 1864 with the discovery of silver at the town of Silver Peak. The playa in the center of Clayton Valley was mined for salt as early as 1906 and later explored for potash during World War II. Lithium was noted during the 1950s. In 1964, Foote Minerals acquired leases and began production of lithium carbonate at Silver Peak by 1967. Production of lithium carbonate from brine has continued to the present under several companies, currently under Albemarle Corporation ([www.albamarle.com](http://www.albamarle.com)).

The occurrence of lithium in sediments of Clayton Valley was reported as early as the 1970s by the United States Geological Survey (USGS).

The Property has rare small-scale pits and trenches from historical exploration efforts, but no known production of lithium or other minerals has occurred on the Property.

In 2016, Century acquired rights to mining claims on the south and east side of Angel Island through purchase options on two contiguous claim blocks from a third-party vendor. The first purchase option was on the Glory property, consisting of the Angel, Glory, and McGee claims and later added the JLS and Longstreet claims. The second purchase option was on the Dean property consisting of the Dean claims and later added the Clay claims.

Surface sampling revealed high lithium concentrations in exposed outcrops of tuffaceous mudstones and claystones.

In 2017, Century drilled its first holes on the Dean property in two phases, DCH-1 through DCH-9, and DCH-10 through DCH-14, followed later in the year by drilling on the Glory property, GCH-1 through GCH-4.

In 2018, Century conducted additional exploration drilling, DCH-11 through DCH-17 and GCH-5 and GCH-6.

Exploration results on the Dean property were reported in a NI 43-101 technical report (Marvin, 2018).

The combined Dean and Glory properties were named the Clayton Valley Lithium Project. Two NI 43-101 technical reports, an initial mineral resource estimate (Lane et al., 2018a) and a preliminary economic assessment (Lane et al., 2018b), were completed.

Century staked additional claims directly from the BLM at the Property these included the DX, DLX, GX (1-16) and GLX claims.

Drilling in 2018 was conducted by a private company on Century-owned claims. Century retained the drill cores for four holes, CM001 through CM004, through a settlement agreement reached in 2019.

In 2019, Century conducted additional exploration drilling, GCH-7 through GCH-12. The purchase of the Glory property was finalized. Century retained drill cores in their entirety from CM001 through CM004 in a settlement agreement completed late in the year.

In 2020, Century filed a NI 43-101 technical report of a PFS (Fayram et al, 2020), an internal mineral resource estimate was updated, testing using chloride-based leaching commenced and initial baseline studies were conducted. In 2021, Century amended the NI 43-101 technical report of the PFS with an updated mineral resource estimate (Fayram et al, 2021).

Leases were acquired for property at the Tonopah, Nevada airport and at del Sol Refining in Armargosa Valley, Nevada. Assembly of a pilot plant was completed, and a water rights permit was purchased.

Century amended the original Dean claims and staked additional Dean claims. This was done to meet the maximum size requirement of a placer claim owned by a corporation and did not alter the property size.

Century staked additional claims in 2021 which resulted in additional GX claims.

In 2022, Century purchased property from Enertopia Corporation (Enertopia) consisting of the Dan and Steve claims. The property included five core holes drilled by Enertopia.

A bulk sample of lithium-bearing claystone was collected for pilot plant testing. A large diameter sonic drilling program was also conducted, resulting in core holes CVS-1 through CVS-8.

Century acquired a license for direct lithium extraction (DLE) technology for use at the pilot plant and Project. High-purity lithium carbonate was produced by Saltworks Technologies, Inc. (Saltworks) from solutions derived at the pilot plant.

In 2023, the NDL and NDP claims were staked. Additional baseline studies were conducted to assist in future permitting.

In 2024, Century revamped its DLE program to use Amalgamated Research Inc. (ARi) Technology. Technology was developed with Hargrove Engineers to make high purity lithium in-house. A patent was filed for the clay leaching technology developed for the Property.

In May 2024, Century received a Class 3 feasibility study completed by Wood Engineers. The study was named; Technical Report Feasibility Study Clayton Valley Lithium Project, Esmeralda County, Nevada.

Century was accepted into the BLM FAST 41 program in the 3<sup>rd</sup> quarter of 2025 to fast-track project permitting.

In December 2025, Century completed the necessary environmental studies for permitting and filed those studies with the BLM. The BLM accepted the documents thereafter.

## 7.0 GEOLOGICAL SETTING AND MINERALIZATION

This section is unchanged from the 2024 NI-43-101 Feasibility Study.

### 7.1 Regional Geology

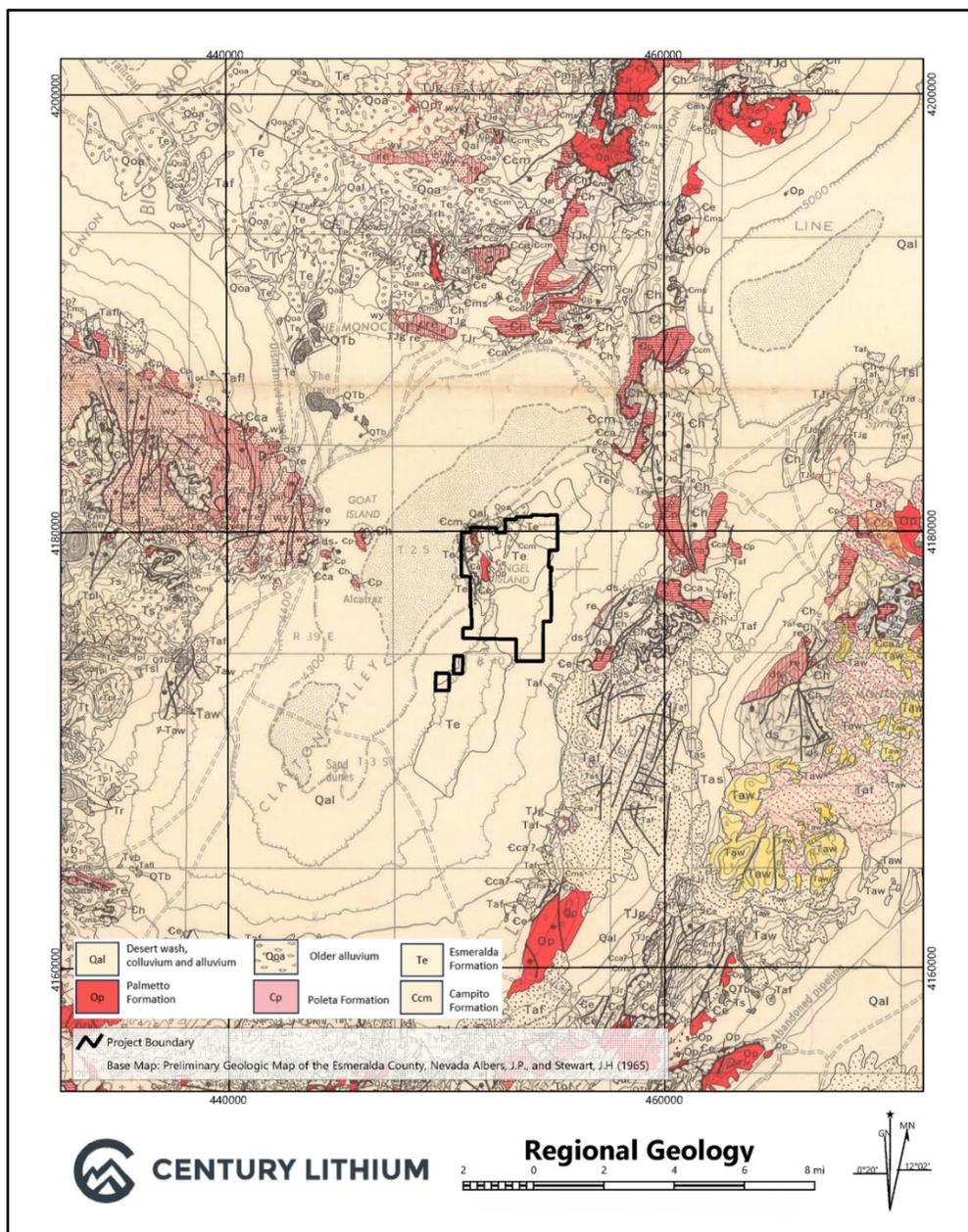
The Clayton Valley is an endorheic basin in western Nevada near the southwestern margin of the Basin and Range Province, a vast physiographic region in the Western US (Figure 7-1). Horst and graben normal faulting is a dominant structural element of the Basin and Range and likely occurred in conjunction with deformation due to lateral shear stress, resulting in disruption of large-scale topographic features. The Walker Lane, a zone of disrupted topography (Locke et al., 1940) perhaps related to right-lateral shearing (Stewart, 1967), is within a few kilometers of the northern and eastern boundaries of Clayton Valley. Walker Lane is not well defined in this area and may be disrupted by the east-trending Warm Springs lineament (Ekren et al., 1976), which could be a left-lateral fault conjugate to the Walker Lane (Shawe, 1965). To the west of Clayton Valley, the Death Valley-Furnace Creek fault zone is a right-lateral fault zone that may die out against the Walker Lane northwest of the valley. South of Clayton Valley are the Palmetto Mountains whose arcuate form is thought to represent tectonic "bending," a mechanism taking up movement in shear zones at the end of major right lateral faults (Albers, 1967).

In the mountains bordering the valley to the east and west, faults in Cenozoic rocks generally trend about N20°E to N40°E. Near the margins of the playa surface, fault scarps with two distinct trends were studied in detail (Davis and Vine, 1979). At the eastern margin, a set of moderately dissected scarps in Quaternary alluvial gravels strike about N20°E. In the east central portion of the valley, a more highly dissected set of scarps in alluvium and upper Cenozoic lacustrine sediments strikes about N65°E. If the modification of these fault scarps is similar to fault-scarp modification elsewhere in Nevada and Utah (Wallace, 1977; Bucknam and Anderson, 1979) the most recent movement on the N20°E set of scarps probably occurred less than 10,000 ya, while the last movement on the N65°E set is probably closer to 20,000 ya (Davis and Vine, 1979).

Regional basement rocks consist of Precambrian (late Neoproterozoic) to Paleozoic (Ordovician) carbonate and clastic rocks deposited along the ancient western passive margin of North America. Regional shortening and low-grade metamorphism occurred during late Paleozoic and Mesozoic orogenies, along with granitic emplacement during the mid to late Mesozoic (ca. 155 and 85 Mya). Tectonic extension began in the late Cenozoic (16 Mya) and continues today.

East of Clayton Valley, more than 100 km<sup>2</sup> of Cenozoic ash-flow and air-fall tuff is exposed at Clayton Ridge and as far east as Montezuma Peak. These predominantly flat lying, pumiceous rocks are interbedded with tuffaceous sediments between Clayton Ridge and Montezuma Peak;

but at Montezuma Peak these rocks are altered considerably and dip at angles of as much as 30°. In the Montezuma Range, they are unconformably overlain by rhyolitic agglomerates.



**Figure 7-1: Regional Geology Map (Source: Century, 2024 modified after Albers and Stewart, 1965)**

Davis et al. (1986) speculate that the source of these tuff sheets may be a volcanic center to the east near Montezuma Peak or to the south in the Montezuma Range, the Palmetto Mountains, Mount Jackson, or the Silver Peak center to the west.

Cenozoic sedimentary rocks are exposed in the Silver Peak Range, in the Weepah Hills, and in the hills due east of the Clayton Valley playa. These rocks all are included in the Esmeralda Formation (Turner, 1900). The Esmeralda Formation consists of sandstone, shale, marl, breccia, and conglomerate and is intercalated with volcanic rocks, although Turner excluded the major ash-flow units and other volcanic rocks in defining the formation. The rocks of the Esmeralda Formation in and around Clayton Valley apparently represent sedimentation in several discrete Miocene basins. The age of the lower part of the Esmeralda Formation in Clayton Valley is not known, but an air-fall tuff in the uppermost unit of the Esmeralda Formation has a K-Ar age of  $6.9 \pm 0.3$  Mya (Robinson et al., 1968).

## **7.2 Local Geology**

Clayton Valley is the lowest in elevation of a series of local playa filled basins, with a playa floor of about 100 km<sup>2</sup> which collects surface drainage from an area of about 1,300 km<sup>2</sup>. The valley is fault-bounded on all sides, delineated by the Silver Peak Range to the west, Clayton Ridge and the Montezuma Range to the east, the Palmetto Mountains and Silver Peak Range to the south, and Big Smokey Valley, Alkali Flat, Paymaster Ridge, and the Weepah Hills to the north.

The valley lies within an extensional half-graben system between a young metamorphic core complex and its breakaway zone (Oldow et al., 2009). The general structure of the north part of the Clayton Valley basin is known from geophysical surveys and drilling as a graben structure with its most down-dropped part on the east-northeast side of the basin along the extension of the Paymaster Canyon Fault and Angel Island Fault (Zampirro, 2005). A similar graben structure was identified in the south part of the Clayton Valley basin through gravity and seismic survey.

Multiple wetting and drying periods during the Pleistocene resulted in the formation of lacustrine deposits, salt beds, and lithium-rich brines in the Clayton Valley basin. Extensive diagenetic alteration of vitric material to zeolites and clay minerals has taken place in the tuffaceous sandstone and shale of the Esmeralda Formation, and anomalously high lithium concentrations accompany the alteration. The lacustrine sediment near the center of pluvial lakes in Clayton Valley is generally green to black calcareous mud. According to (Davis et al., 1986), about half of the sediments, by weight, are smectite and illite, which are present in nearly equal amounts, with the remaining half composed of calcium carbonate (10 to 20%), kaolinite, chlorite, volcanoclastic detritus, traces of woody organic material, and diatoms. These tuffaceous lacustrine facies of the Esmeralda Formation contain up to 1,300 ppm lithium and average 100 ppm lithium (Kunasz, 1974; Davis and Vine, 1979). Lithium bearing clays in the surface playa sediments contain from 350 to 1,171 ppm lithium (Kunasz, 1974). More recent work by

Morissette (2012) confirms elevated lithium concentrations in the range of 160-910 ppm from samples collected on the northeast side of Clayton Valley. Miocene silicic tuffs and rhyolites along the basin's eastern flank have lithium concentrations up to 228 ppm (Price et al., 2000).

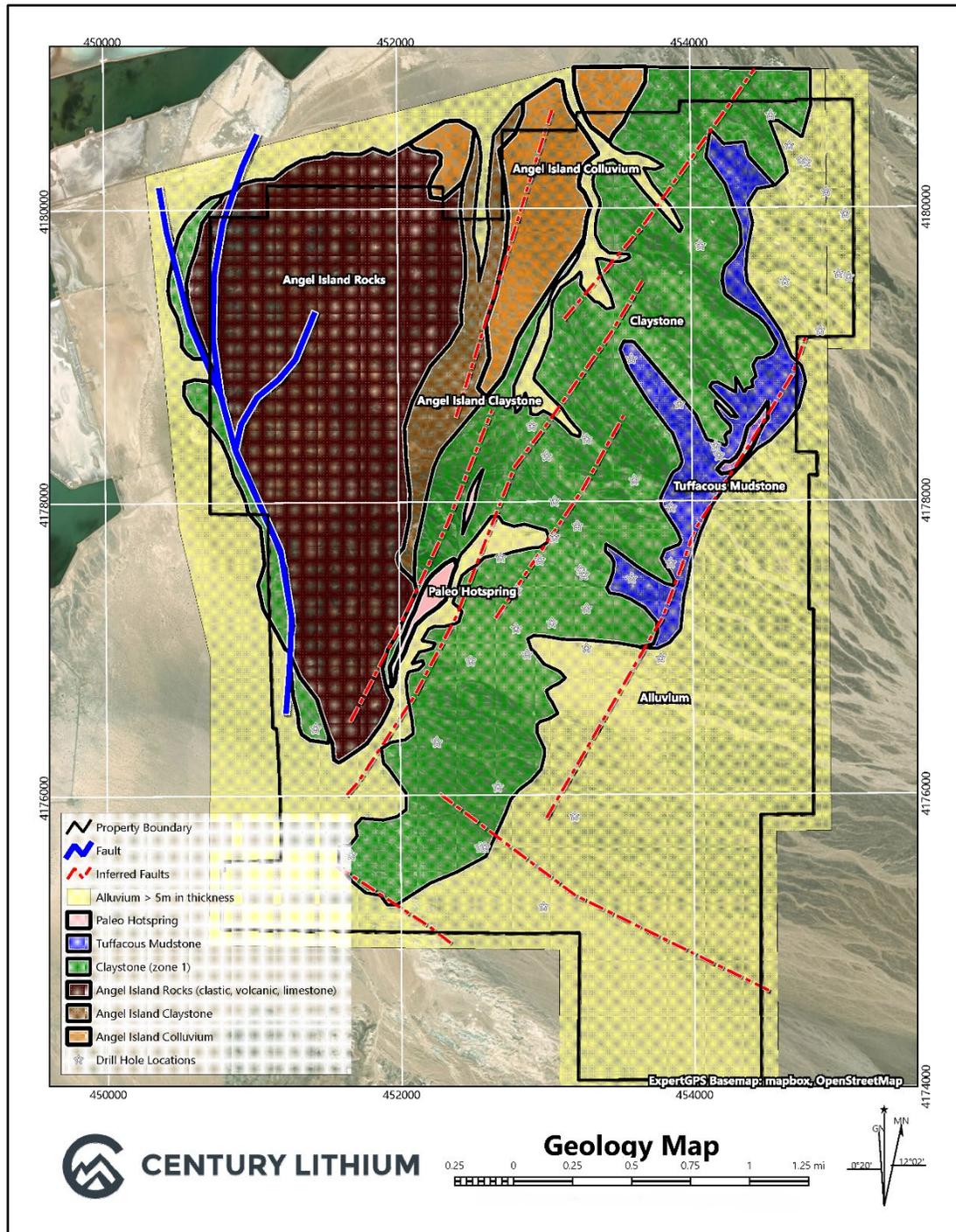
### 7.3 Project Geology

The western portion of the project area is dominated by the uplifted basement rocks of Angel Island which consist of metavolcanic and clastic rocks, and colluvium. The southern and eastern portions are dominated by uplifted, lacustrine sedimentary units of the Esmeralda Formation. Locally the Esmeralda Formation is comprised of fine grained sedimentary and tuffaceous units, with occasional pronounced local undulation and minor faulting (Figure 7-2 and Figure 7-3).

The resulting topography consists of elongate, rounded ridges of exposed Esmeralda Formation separated by washes and gullies filled with alluvial cobble, gravel, and fine sediment. The ridge tops are commonly mantled weathered fragments of rock (desert pavement) sourced from the surrounding highlands. Century provides the following description of the stratigraphic units of the Esmeralda Formation in the project area, which form a laterally and vertically continuous stratigraphic section which underlies the south and eastern portions of the project area. Cross-sections showing logged geology, geologic interpretations, and assay results from the assayed core intervals are presented in report Section 14 with Figure 14-22 to Figure 14-31.



**Figure 7-2: Exposed Esmeralda Formation in Southern Portion of Project (Source: GRE, 2018)**



**Figure 7-3: Project Geology Map (Source: Century, 2024)**

*Alluvium*—this unit consists of poly lithic sand, gravel, cobble, and boulder, and covers large portions of the Property. This unit varies from 0 to 10+ m in thickness, is a thin desert pavement on the ridge or mound tops and thickens in the fluvial channels and to the east up the alluvial fan. Most of the material is from the steep canyons cutting Clayton Ridge to the east with minor amounts from the eastern flanks of Angel Island. Lithium is locally not present in this unit.

*Tuffaceous mudstone*—this unit consists of interbedded silty mudstone and hard tuffaceous beds, tan to reddish brown in color. At some locations, this unit grades with the alluvium creating a thin (1 to 2 m) layer of semi-consolidated conglomerate. The unit is approximately 70% mudstone and 30% hard tuff layers. This unit is 0 to 15 m in thickness and lithium content averages 850 ppm.

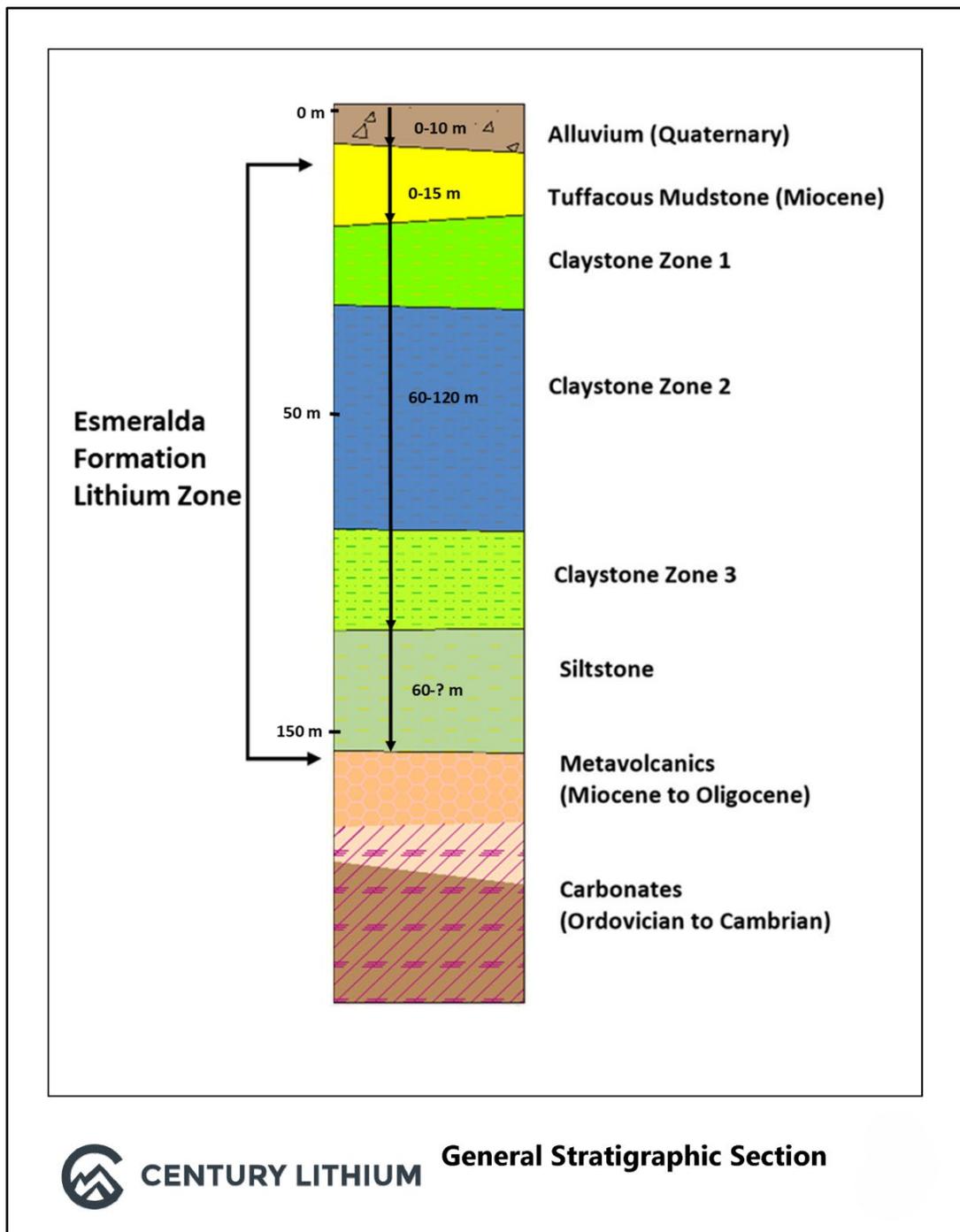
*Claystone*—this unit is an ash-rich claystone and the primary lithium-bearing lithology at the project, the fresh color ranges from olive green, blue-gray, tan, to reddish-brown but becomes tan-brown with a light green hue when dry. Below an interbedded top section, this unit is massive with uniform texture and color, the grain size is consistent, and the clay is generally fat. Areas of ashy-lamina, thin tuff or zeolite layers, and ash/zeolite blebs are present. The unit is generally soft and weakly ductile, breaks with conchoidal fractures and hardens when dry. The primary differences within the unit are weathering, as three distinct zones of oxidized and unaltered material. These zones do not show significant differences geochemically or metallurgically outside of higher lithium concentrations in zones one and two. This unit is 60 to 120 m in thickness, and lithium content averages 1,060 ppm.

The first zone is olive to tan in color when fresh and tan when dry, is oxidized and contains locally abundant iron oxide staining, hematite, and partial layer replacement. The second zone begins with an interbedded area of oxidized and unaltered material, becoming completely unaltered at depth. Color is blue-gray when fresh and tan to light green when dry, is unaltered and contains occasional to pervasive zones of lamina containing dark carbon and formational pyrite. The third zone typically begins below an ash-fall tuff with gradational oxidation becoming completely oxidized with depth, color is olive when fresh and dark-tan to reddish-brown when dry. Zones of formational carbon and pyrite can be found high in the zone but soon become pervasive thin bands of hematite or limonite, and as depth approaches the next unit, zones of ashy/sandy or silica rich lamina and thin beds occur. In general, the grain size increases with silt and sand more prevalent.

*Siltstone*—this unit has a gradational upper contact and is a unit where the claystone becomes siltstone and is more firm and coarser grained than the claystone unit. Color is tan to reddish-brown, is oxidized with zones of hematite, cross bedding, slump features and other signs of a higher-energy depositional environment, and poorly to very well indurated with silt+sand fraction generally ~50% and higher in areas of thin beds/lamina. This unit's thickness is not known, although a 15.7- and 33.6-m section separated by a layer of claystone zone 3 is encountered in exploration hole CM004, and the lithium content averages 545 ppm over these two intercepts.

## **7.4 Mineralization**

Elevated lithium concentrations, generally > 600 ppm, are encountered in the local sedimentary units of the Esmeralda Formation from surface to at least 142 mbsg. The lithium-bearing sediments primarily occur as silica-rich, moderately calcareous, interbedded tuffaceous mudstone, claystone, and siltstone. The overall mineralized sedimentary suite is a laterally and vertically extensive, roughly tabular zone with at least two prominent oxidation horizons (Figure 7-4). The primary area of mineralization is in a claystone unit consisting of three zones: oxidized claystone, unaltered claystone, and an oxidized claystone. The claystone unit is overlain by tuffaceous mudstone in the eastern portion of the project and underlain by a siltstone. Elevated lithium concentrations occur in all the uplifted lacustrine strata encountered; however, lithium concentrations are notably higher and more consistent in the claystone unit. The length, width, depth, and continuity of the mineralization are illustrated in Figure 14-22 to Figure 14-31.



**Figure 7-4: General Stratigraphic Section (Source: Century, 2024)**

## 8.0 DEPOSIT TYPES

This section is unchanged from the 2024 NI-43-101 Feasibility Study.

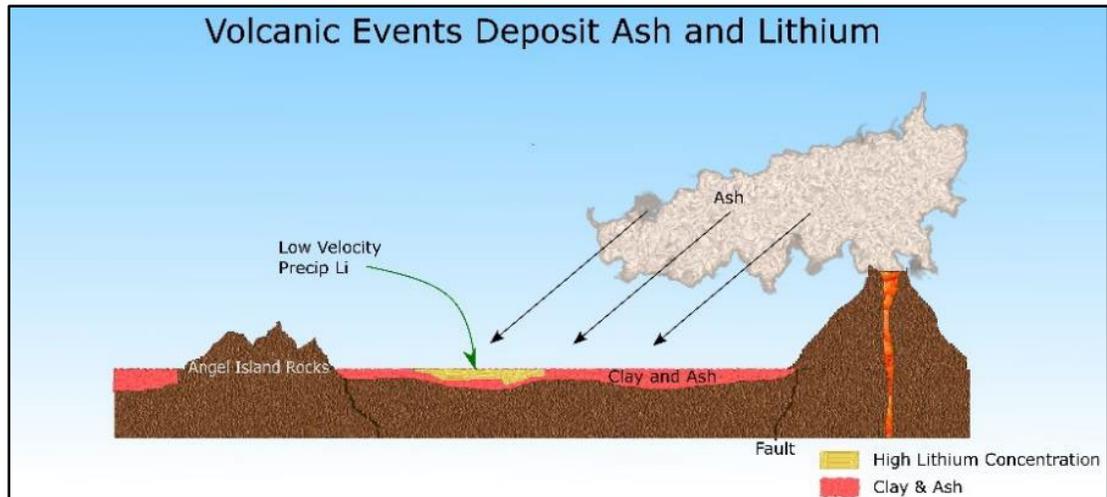
Lithium is known to occur in economic concentrations in three types of deposits: pegmatites, continental brines, and clays. Lithium is produced from pegmatites and brines, with brines the largest producer of lithium worldwide. There is no active mining of lithium clay deposits.

In clay deposits, lithium is often associated with smectite (montmorillonite) group minerals. The USGS presents a preliminary descriptive model of lithium in smectites of closed basins (Asher-Bolinder, 1991), Model 251.3(T), which suggests three forms of genesis for lithium clay deposits: alteration of volcanic glass to lithium-rich smectite; precipitation from lacustrine waters; and incorporation of lithium into existing smectites. In each case, the depositional/diagenetic model is characterized by abundant magnesium, silicic volcanic rocks, and an arid environment.

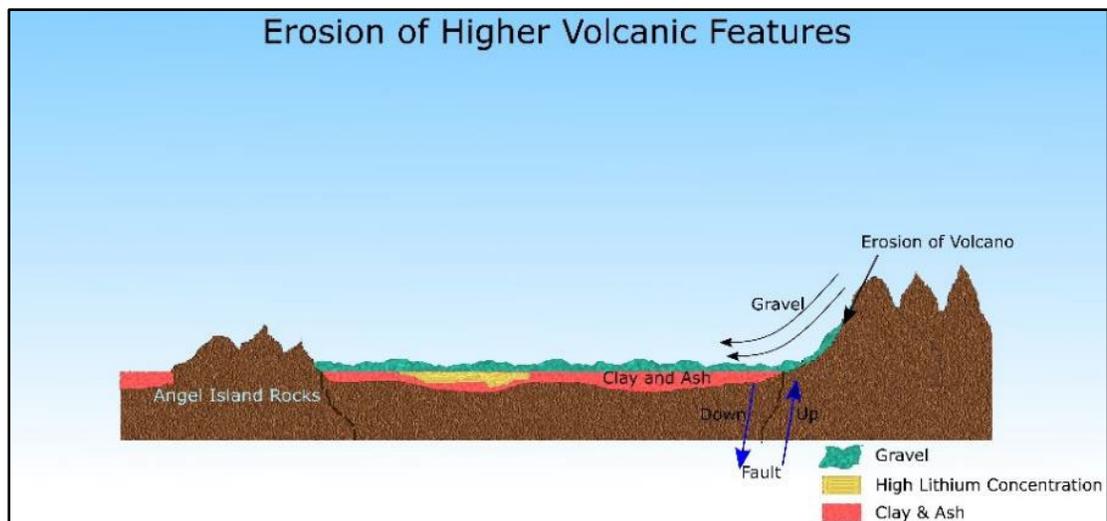
Regional geologic traits of lithium clay deposits, as presented by (Asher-Bolinder, 1991), include a basin-and-range or other rift tectonostratigraphic setting characterized by bimodal volcanism, crustal extension, and high rates of sedimentation. The depositional environment is limited to arid, closed basins of tectonic or caldera origin, with an age of deposition ranging from Paleocene to Holocene. Host rocks include volcanic ashes, pre-existing smectites, and lacustrine beds rich in calcium and magnesium.

The Clayton Valley deposit is reasonably well represented by the USGS preliminary deposit model, which describes the most readily ascertainable attributes of such deposits as light-colored, ash-rich, lacustrine rocks containing swelling clays, occurring within hydrologically closed basins with some abundance of proximal silicic volcanic rocks. The geometry of the Clayton Valley deposit is roughly tabular, with the lithium concentrated in gently dipping, locally undulating, sedimentary strata of the Esmeralda Formation. The sedimentary units are interbedded silica-rich, ash-rich mudstone and claystone, with interbeds of sandy and tuffaceous mudstone/siltstone and occasional poorly cemented silt and sandstone. The lithium concentrations are highest within the mudstone and claystone, but lithium is still also present in a siltstone unit underlying the claystone.

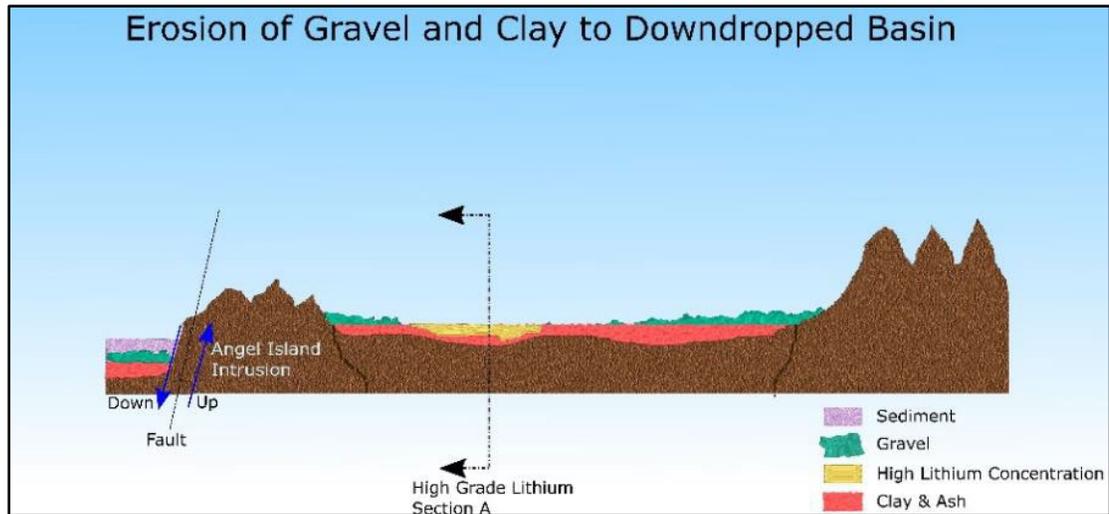
The deposition of the lithium-rich sediments likely occurred late in the history of the associated paleo brine lake, based largely on the stratigraphic position of the mudstone and claystone above the thick overall sandstone- and siltstone-dominated basin fill events. Such a setting would be ideal for the concentration of lithium from ash and groundwater inputs over an extensive period. As a result, the lithium-rich strata may represent several million years of lithium input and concentration within the basin. Figure 8-1 through Figure 8-3 show a conceptual sequence of depositional, erosional, and structural events which may account for the present-day nature and occurrence of the lithium deposits.



**Figure 8-1: Deposit Origin: Volcanic Events (Source: GRE, 2020)**



**Figure 8-2: Deposit Origin: Erosion of Higher Volcanic Features (Source: GRE, 2020)**



**Figure 8-3: Deposit Origin: Erosion of Gravel and Clay (Source: GRE, 2020)**

Within the lithium-bearing sediments of the deposit are oxidation and unaltered horizons that are recognizable in drill cores. Based on the drilling to date, the highest lithium concentrations occur within claystone zone 2 which has a central unaltered zone inter-layered between two oxidized layers. This distribution of mineralization may be the result of recent, oxidizing surface waters penetrating down dip within more permeable beds of the sedimentary package to create a series of oxidation-unaltered layers.

## 9.0 EXPLORATION

This section is unchanged from the 2024 NI-43-101 Feasibility Study.

Century began exploring the project in late 2015. Exploration activities carried out by Century to date include surface sampling and detailed geological mapping. The QP author knows of no other exploration activities carried out by Century, except for drilling, that warrant discussion in this Report.

### 9.1 Surface Sampling

During 2015 and 2016 Century geologists collected 494 surface samples (including 28 duplicates) of outcroppings and soil. These samples typically consist of roughly 5 kg of rock or soil placed directly into a cloth sample bag and marked with a blind sample number. The samples cover most of the Property where claystone and tuffaceous mudstone are exposed. The sample density is highest in the southwest portion of the Property. In 2020, Century geologists collected an additional 19 surface samples in the southeast part of the Property on claims contested in a lawsuit which Century defended title thereof. The sample locations are shown on Figure 9-1 with lithium grades in ppm.

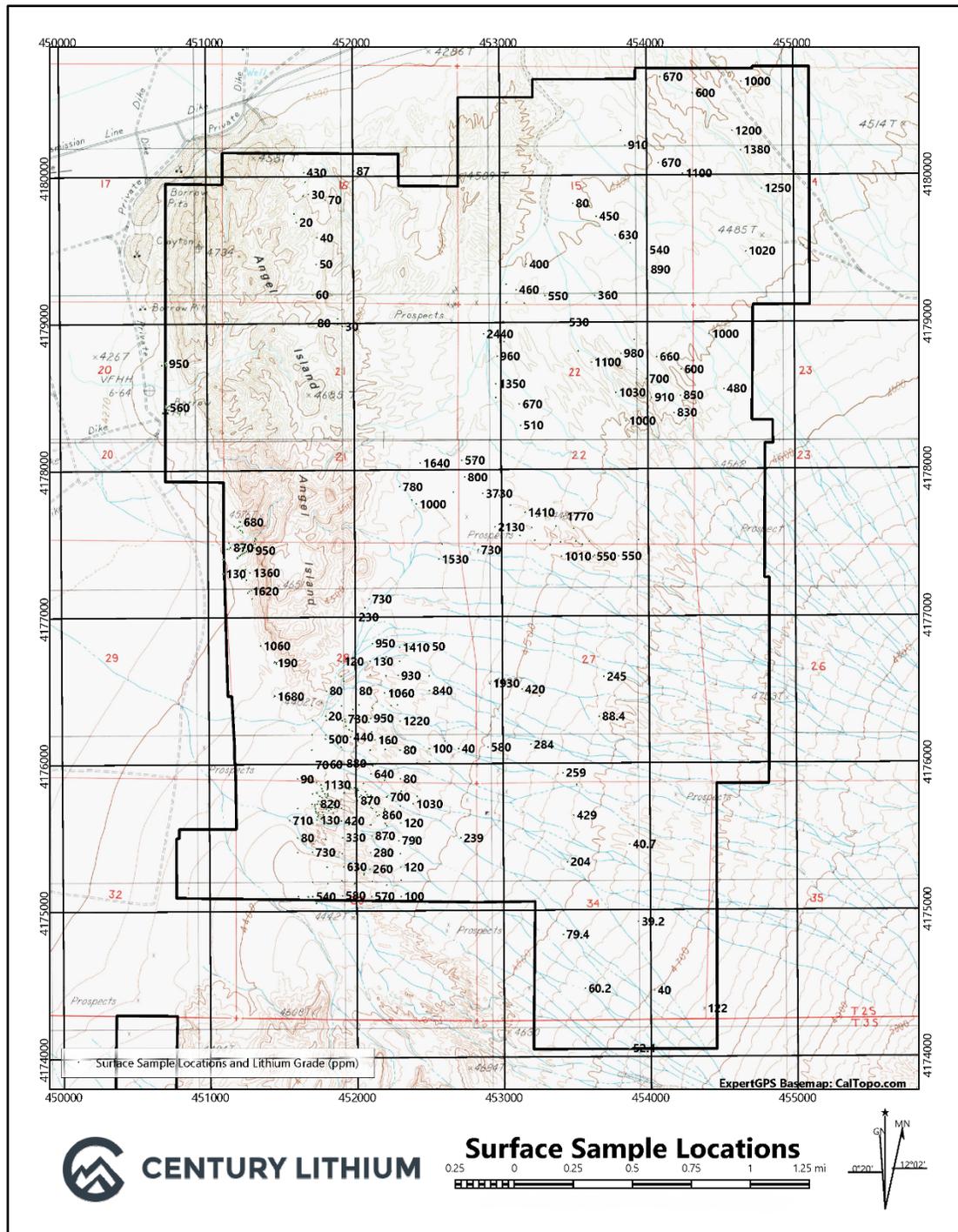
All samples were collected using hand tools, placed in cloth or plastic bags with sample designations, sample material was noted, and location recorded with a GPS. Samples collected in 2015 and 2016 were laboratory analyzed by 33 element 4-acid ICP-AES and 35-element aqua regia AAS. Samples collected in 2020 were laboratory analyzed by 48-element, 4-acid ICP-MS.

Analytical results indicate elevated lithium concentrations at the surface over most of the area sampled. Assay values exceeding 1,000 ppm Li were returned for samples collected in the central portion of the Property, trending northeast and just west of Angel Island. This information was utilized to generate drill targets, and, in all cases, holes drilled to date have confirmed the presence of elevated lithium mineralization.

Sample methods and sample quality are sufficient for the use in directing more detailed exploration like drill target generation. Samples are representative of the lithology and do not show any apparent sample biases. The samples cover a large portion of the Property and sample density varies; this is largely due to degree of exposure of the target lithologies.

### 9.2 Survey for Elevation and Orthoimagery

In February 2018, Century contracted Strix Imaging of Gardnerville, Nevada (now part of DOWL) to survey 1,052 ha in the mineral resource area or central portion of the Property for elevation and orthoimagery.



**Figure 9-1: Surface Sample Locations (Source: Century, 2024)**

The survey used ground panels 1 m x 1 m in size set throughout the mapping area as reference points. A drone was flown to collect imagery at approximately 3 cm resolution. All deliverables meet the following standards in non-vegetated areas: 1) National Mine Action Standards 30 cm contours (90% of ground points fall within 15 cm of model-derived elevation, 2) American Society for Photogrammetry and Remote Sensing 10 cm horizontal and vertical classes and 3) the orthoimagery with the same accuracy as the vertical model. The datum used was NAD 1983 UTM 11N with elevation products either in ellipsoid or ortho (NAVD88).

Strix Imaging delivered the following:

- 1 m and 0.5 m contours in SHP file format, 3D viewing compatible, for use in Leapfrog
- Orthophotographic imagery at high and low resolutions in TIFF file format with associated TFW file
- Additional terrain model products in DXF or DWG file format for use in CAD software
- Ground panel locations in both Microsoft Excel and SHP file format.

In March 2019, Century contracted Strix Imaging to survey an additional 1,376 ha not included in the original survey area. This included Angel Island and areas in the south and east to complete the elevation profile for the project area. The combined survey area of over 2,428 ha covers the project area.

### **9.3 Geologic Mapping**

In March 2020, Century geologists completed general geologic surface mapping over much of the project area, the total mapped surface is approximately 20 km<sup>2</sup>. The geologic mapping is sufficiently detailed to use in exploration planning, drill targeting and general property assessment.

## 10.0 DRILLING

This section is unchanged from the 2024 NI-43-101 Feasibility Study.

Different operators have carried out drilling, with the first drilling on the Property in 2017. Enertopia drilled five holes (including one metallurgical hole) within the Property, totaling 439.8 m in 2018. Century drilled 33 core holes totaling 2,992.7 m from 2017 to 2019. In 2022, Century drilled eight sonic holes totaling 579.1 m. The Mineral Resource estimate is based on 45 core holes (3,955.2 m).

### 10.1 Enertopia

Enertopia drilled five BQ-size core drill holes, TOP 01 through TOP 04 and TOP-02M in December 2018 (Table 10-1), totaling 439.8 m. Four of the holes were for exploration, totaling 383.4 m. Hole TOP-02M with a length of 56.4 m was to be used for metallurgical testing and is located approximately 6 m northeast of TOP-02.

The holes were drilled using a combination of a track-mounted Longyear 44 and a custom-built drill rig attached to a small Caterpillar track loader (Cat rig). In some cases, the Cat rig would begin the hole, and the Longyear 44 would finish it. The core was drilled and recovered in 1.52-m intervals, logged by the on-site geologist for rock quality designation (RQD), percent recovery, and lithology, and then photographed and sampled. Due to the soft nature of the core, the catch spring in the core barrel was sometimes unable to secure all the core in the barrel, resulting in some loss of core down-hole in some parts of the hole. The Enertopia database shows this drilling program had fair core recoveries for holes TOP 01 and TOP 02, with core recovery averaging 67.35%, and good core recoveries for holes TOP 03 and TOP 04, with core recovery averaging 81.85%.

**Table 10-1: Enertopia Drill Hole Summary**

Drill Hole ID	Easting (m)	Northing (m)	Elevation (m)	Depth (m)
TOP 01	455076	4179522	1375	89.0
TOP 02	455046	4179949	1367	93.6
TOP 03	454874	4179154	1375	110.3
TOP 04	454805	4180310	1355	90.5
TOP 02M	455052	4179952	1369	56.4

## 10.2 Century

Century drilled 41 holes totaling 3,572.0 m, from 2017 to 2022 on the Property, including 17 core holes in 2017, 10 core holes in 2018, six core holes in 2019, and eight sonic holes in 2022 (Table 10-2). All holes are vertical, ranging in depth from 32.9 to 142.3 m.

Drill hole collars were surveyed by Century geologist in the field using handheld Garmin GPS MAP64s and then applied to the elevation on lidar.

Downhole surveys were not conducted on the drill holes due to the deposit type. The holes are relatively shallow and were all drilled vertically. Any minor deviation present in these short and widely spaced drill holes will have no material impact on the geologic model or the Mineral Resource estimate.

Drill hole collars are listed with coordinates in Table 10-3, and drill hole locations are shown in Figure 10-1.

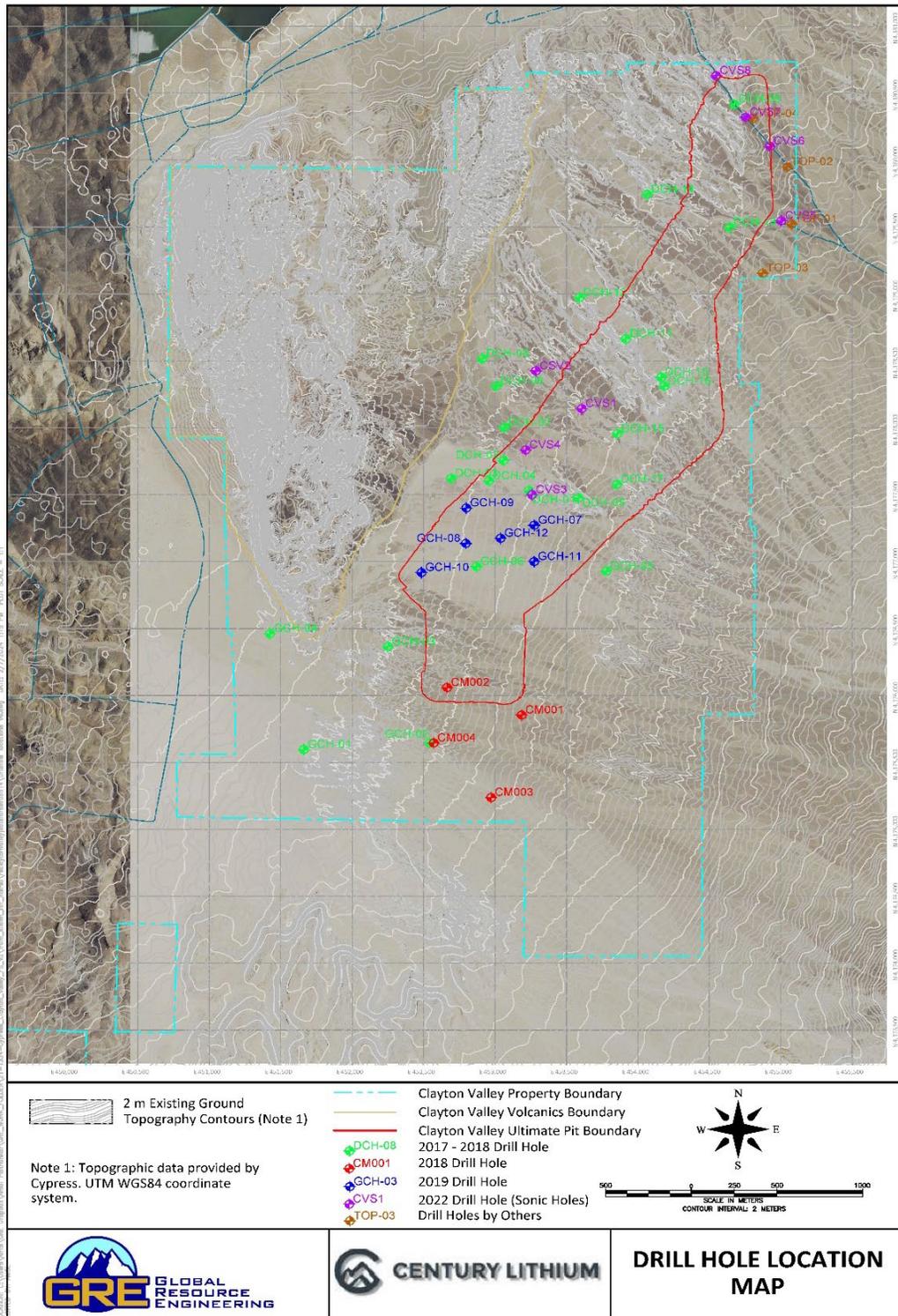
**Table 10-2: Century Drill Hole Summary**

Year	Company	Drill Type	No. of holes	Meters Drilled (m)
2017	Century	Core Hole	17	1,478.6
2018	Century	Core Hole	10	810.6
2019	Century	Core Hole	6	703.5
2022	Century	Sonic Hole	8	579.1
<b>Total</b>			<b>41</b>	<b>3,571.8</b>

**Table 10-3: Detailed Drill Hole Data from each Campaign by Century**

Drill Hole ID	Easting (m)	Northing (m)	Elevation (m)	Depth (m)
<b>2017 and 2018 Drill Holes</b>				
DCH-01	453,237	4,177,532	1,362	36.0
DCH-02	453,060	4,177,756	1,355	112.2
DCH-03	452,694	4,177,622	1,353	76.8
DCH-04	452,958	4,177,603	1,355	72.5
DCH-05	453,584	4,177,476	1,366	79.9
DCH-06	452,911	4,178,518	1,351	39.0
DCH-07	453,065	4,178,003	1,362	78.6
DCH-08	453,010	4,178,313	1,354	75.6
DCH-09	454,675	4,180,420	1,345	106.1
DCH-10	454,163	4,178,378	1,367	64.3
DCH-11	453,916	4,178,664	1,354	103.0
DCH-12	453,591	4,178,972	1,345	66.5
DCH-13	454,641	4,179,498	1,359	112.2
DCH-14	454,066	4,179,744	1,341	81.7
DCH-15	453,857	4,177,957	1,376	127.4

<b>Drill Hole ID</b>	<b>Easting (m)</b>	<b>Northing (m)</b>	<b>Elevation (m)</b>	<b>Depth (m)</b>
DCH-16	454,184	4,178,312	1,368	122.5
DCH-17	453,853	4,177,579	1,381	124.4
GCH-01	451,662	4,175,597	1,331	32.9
GCH-02	452,544	4,175,646	1,362	39.0
GCH-03	452,249	4,176,365	1,346	60.4
GCH-04	451,425	4,176,462	1,320	51.2
GCH-05	453,779	4,176,929	1,390	129.5
GCH-06	452,870	4,176,963	1,359	100.0
<b>2018 Drill Holes</b>				
CM001	453,187	4,175,853	1,356	124.3
CM002	452,665	4,176,059	1,368	88.8
CM003	452,973	4,175,238	1,358	92.0
CM004	452,571	4,175,646	1,365	92.4
<b>2019 Drill Holes</b>				
GCH-07	453,275	4,177,272	1,373	142.3
GCH-08	452,795	4,177,136	1,361	111.9
GCH-09	452,798	4,177,401	1,360	118.0
GCH-10	452,485	4,176,918	1,354	93.6
GCH-11	453,273	4,177,000	1,376	124.1
GCH-12	453,039	4,177,175	1,367	113.7
<b>2022 Drill Holes</b>				
CVS1	453,607	4,178,144	1,372	76.2
CVS2	453,286	4,178,426	1,360	76.2
CVS3	453,259	4,177,501	1,328	76.2
CVS4	453,215	4,177,835	1,355	76.2
CVS5	455,004	4,179,546	1,365	61.0
CVS6	454,924	4,180,104	1,355	76.2
CVS7	454,756	4,180,320	1,351	61.0
CVS8	454,548	4,180,630	1,411	76.2



**Figure 10-1: Drill Hole Location Map (Source: GRE, 2022)**

### **10.2.1 2017-2018 Drilling**

From 2017 through 2018, Century drilled a total of 23 vertical, NQ-size (47.6 mm diameter) totaling 1,891.6 m of drilling. Drilling was completed by Morning Star Drilling of Montana using Acker truck- and track-mounted drill rigs.

Core recoveries were measured by Century's geologist. The core was placed in order and pieces re-oriented to fit together as appropriate. The core recovery was then measured per interval by measuring the actual length of core retrieved from the drill interval against the recorded interval between the core blocks. The QP reviewed core drilling undertaken by Century during 2017 to 2018 for holes DCH-01 to DCH-17 and holes GCH-05 and GCH-06 and observed that the programs had excellent core recoveries, with core recovery averaging 92.3%.

In 2018, four HQ-size (63.5 mm) core holes, CM001 through CM004, totaling 397.5 m were drilled by a private company. The cores from these holes were retained by Century through a 2019 settlement agreement. CM001 was drilled to 124.3 m; the other three holes were drilled to depths ranging from 88.8 to 92.4 m. Century logged and sampled the cores from all four holes. CM004 intersected 15.7 m and 36.6 m of siltstone separated by claystone zone 3 starting at 35.8 m making it the shallowest and longest intercept of this unit on the Property. This indicates a thinning of the above lithological units at this location. All the holes intersected the lithium bearing tuffaceous mudstone and claystone units encountered in all the other drill holes on the Property.

In 2020, drill core was received at ALS USA where they were geologically logged, photographed, and prepped for splitting, sample processing, and assay under the direction of Century geologists. Cores from one of the four holes were processed through sample preparation in its entirety, with coarse reject material retained for use in metallurgical tests. All samples were accompanied by QA/QC samples including blanks, CRM standards and duplicates. Short, < 30.5 cm intervals, from CM001 and CM003 were selected and submitted for specific gravity testing.

### **10.2.2 2019 Drilling**

In 2019 Century drilled a total of six vertical, NQ-size totaling 703.6 m of drilling. Drilling was completed by Morning Star Drilling of Montana. The goal of drilling in 2019 was to reduce drill spacing in a favorable mineralized area of the Property. The drilling was planned to generate data from deeper in the deposit, as elevated lithium concentrations persist at depth in all holes except GCH-04 where basement rocks were encountered in 2017.

Century utilized a truck-mounted drill rig, allowing deeper drilling depths. The six drill holes focused on a 0.5 km<sup>2</sup> area in the south-central portion of the project area. GCH-07 was drilled to 142.3 m and penetrated over 19 m into siltstone, the deepest lithological unit drilled.

The QP reviewed core drilling undertaken by Century during 2019 for holes GCH-07 to GCH-12 and observed that the program had excellent core recovery averaging 97.6%.

All drill cores from the program were delivered to ALS USA where they were geologically logged, photographed, and prepped for splitting, sample processing and assay under the direction of Century geologists. Cores from five of the six holes were processed through sample preparation in their entirety, with coarse reject material retained for use in metallurgical tests. All samples were accompanied by QA/QC samples including blanks, CRM standards and duplicates. Short, < 30.5 cm intervals from GCH-09 were selected and submitted for specific gravity testing. Similar size samples were selected from GCH-10, GCH-11 and GCH-12 and submitted for geotechnical testing.

### **10.2.3 2022 Drilling**

In 2022 Century drilled a total of eight vertical sonic holes totaling 579.2 m. Drilling was completed by Gregory Drilling Inc. using a sonic drill rig.

The purpose of the drilling was to complete the following tasks: 1) generated material for metallurgical testing at various depths and locations, 2) reduced drill spacing in the center of the Property, and 3) confirmed drill results and reduced drill spacing in the northeast portion of the Property, where Century acquired a 65-ha parcel in May 2022.

The sonic drill rig (Figure 10-2) allowed for continuous drilling with large-diameter core. Four drill holes, CVS1 to CVS4, focused on a 0.17 km<sup>2</sup> area in the central portion of the Property with an average spacing of 416 m. These holes were drilled with a 152.4 mm diameter to a depth of 76.2 m, totaling 304.8 m.

Four drill holes, CVS5 to CVS8, focused on the northeast portion of the Property, with an average spacing of 407 m along a 1,230 m line striking north-northwest to south-southeast. Holes CVS5 and CVS7 were drilled to a depth of 61.0 m, totaling 122.0 m, and holes CVS6 and CVS8 were drilled to a depth of 76.2 m, totaling 152.4 m. Holes CVS5 to CVS7 were drilled with a 152.4 mm diameter, and hole CVS8 was drilled with a 101.6 mm diameter.

Recorded core recoveries were excellent, with core recovery averaging 92.2%.

All drill cores from the program were delivered to Century's facility at the Tonopah Airport, Nevada where they were geologically logged, photographed, and sampled by a Century geologist. The Century geologist prepped two types of samples: disks and longitudinal slices. The samples were then delivered to ALS USA for assay. The remaining core was retained for use in metallurgical tests, placed in super sacks, and securely stored at the facility.



**Figure 10-2: Sonic Drilling Rig and Equipment, Collar Hole, and Sonic Samples (Source: GRE, 2022)**

### 10.3 Drilling Results

Based on drilling to date the subsurface stratigraphy consists of variably interbedded lakebed deposits of silica and ash-rich mudstone and claystone, and occasional tuffaceous zones, all dipping gently to the east. These sediments are underlain by a distinct, siltstone unit in 18 of the 33 drill hole locations. Lithium values in the siltstone are lower than those within the overlying sediments, and this unit represents the extent of drilling carried out to date.

The drilling results indicate a favorable section of claystone up to 120 m thick, where a strong, apparently planar, alternating oxidation/unaltered zone exists. These zone contacts have distinct color changes in fresh core which fade when dry. The change from oxidized to unaltered is sharp, but often interfingering indicating potential areas of varying permeability. The lithium content through these zones appears consistent, as do other geochemical factors and any

specific significance of the oxidation/unaltered zones regarding lithium mineralization is not apparent. The lithium concentration decreases with depth as the claystone grades into the siltstone unit below.

Representative drill intervals from the 2017-2018 drilling, 2018 drilling, and 2019 drilling are shown in Table 10-4, Table 10-5 and Table 10-6, respectively. The 2019 and 2018 results shown are consistent with the thicknesses and grades of lithium mineralization encountered in previous drilling. A summary and interpretation of drill results is provided in cross-sections presented in Figure 14-22 to Figure 14-31.

**Table 10-4: 2017-2018 Representative Drill Intervals**

Drill Hole ID	Depth (m)		Length (m)	Avg Li (ppm)
	From	To		
DCH-01	4.4	36.0	31.5	1,140
DCH-02	0.5	54.3	53.8	1,036
DCH-03	8.5	36.0	27.4	999
DCH-04	1.5	51.2	49.7	1,127
DCH-05	8.5	75.6	67.1	1,129
DCH-06	14.6	31.4	16.8	1,013
DCH-07	32.2	51.2	19.0	974
DCH-09	11.3	69.5	58.2	1,093
DCH-10	8.5	64.3	55.8	1,108
DCH-11	8.2	63.4	55.2	1,209
DCH-13	23.8	106.1	82.3	1,221
DCH-15	20.1	124.4	104.2	1,106
DCH-16	14.6	122.5	107.9	1,199
DCH-17	14.6	109.1	94.5	1,050
GCH-04	3.7	29.9	26.2	1,077
GCH-05	84.7	109.7	25.0	1,018
GCH-06	3.0	100.0	96.9	1,142

**Table 10-5: 2018 Representative Drill Intervals**

Drill Hole ID	Depth (m)		Length (m)	Avg Li (ppm)
	From	To		
CM001	4.9	110.6	105.7	1,065
CM002	1.5	85.8	84.3	996
CM003	5.8	84.4	78.6	1,007
CM004	3	60.4	57.4	883

**Table 10-6: 2019 Representative Drill Intervals**

Drill Hole ID	Depth (m)		Length (m)	Avg Li (ppm)
	From	To		
GCH-07	2.7	90.5	87.8	1,188
GCH-08	8.2	87.5	84.7	1,229
GCH-09	8.3	72.2	64.0	1,163
GCH-10	3.0	69.2	66.2	1,069
GCH-11	8.2	72.2	64.0	1,176
GCH-12	1.8	81.4	79.6	1,252

Representative drill intervals from the 2022 sonic drilling campaign are shown in Table 10-7. Table 10-7 shows only intervals with more than 1,000 ppm as most of the assay results from this drilling campaign are greater than 700 ppm.

## 10.4 QP Comments on Section 10

Based on a careful review of the drilling, sampling, and analytical procedures employed by Century during the 2017 to 2019 drill campaign, the QP finds no drilling, sampling, or recovery factors that might materially impact the accuracy or reliability of the drilling results. Figure 10-3 shows typical excellent core recovery in a 2019 hole.

The QP considers that the quality of the drilling, logging, and collar data collected in the 2022 drilling exploration program are sufficient to be added to the database. No factors were identified with the data collection from the 2022 drill programs that could significantly affect Mineral Resource estimation. Drill orientations are generally appropriate for the mineralization style for the bulk of the deposit area.

**Table 10-7: 2022 Representative Drill Intervals**

Drill Hole ID	Depth (m)		Length (m)	Avg Li (ppm)
	From	To		
CVS1	9.1	21.4	12.3	1,582
CVS1	27.1	42.7	15.6	1,610
CVS1	67.1	76.1	9.1	1,262.5
CVS2	9.1	45.8	36.7	833.3
CVS2	54.9	70.2	15.3	1,011.7
CVS3	6.1	76.2	70.1	1,200.9
CVS4	3.0	27.5	24.4	1,228.9
CVS4	32.6	36.6	4.0	1,462.5
CVS4	45.7	54.9	9.2	1,080.3
CVS5	49.4	61.0	11.6	1,095
CVS6	27.4	57.9	30.5	1,501

Drill Hole ID	Depth (m)		Length (m)	Avg Li (ppm)
	From	To		
CVS6	61.0	76.2	15.2	1,136
CVS7	6.1	10.7	4.6	1,231.1
CVS7	15.2	33.6	18.3	1,461.6
CVS7	48.8	58.0	9.2	1,422.2
CVS8	21.3	33.7	12.3	1,003.3
CVS8	51.8	61.1	9.3	1,225



**Figure 10-3: Core from GCH-07 (Source: GRE, 2020)**

Based on observations and discussions with the Century field geologist and a review of the QA/QC program, the Qualified Person is of the opinion that the sampling methods, sample preparation procedures, analytical methods, and security measures employed during the 2022 program are appropriate for the style of mineralization and stage of Project development.

## **11.0 SAMPLE PREPARATION, ANALYSES, AND SECURITY**

This section is unchanged from the 2024 NI-43-101 Feasibility Study.

### **11.1 Campaign 2017-2019**

#### **11.1.1 Sample Preparation**

During Enertopia's 2018 program, drill core was transported, logged and sampled by Enertopia personnel. The core was split by hand and transported by Enertopia to Mineral Exploration Geochemistry (MEG), for sample preparation and later analysis by ALS USA.

Samples collected from Century's 2017-2019 drill programs consisted of bulk surface samples (discussed in Section 9) and NQ-size and HQ-size drill core.

Drill core samples are collected at the drill rig and placed into waxed cardboard boxes by the drill crew. For holes DCH-01 through DCH-17 and GCH-01 through GCH-06, Century geologists photographed the core as it was received and collected core recovery information. Sample intervals were selected, primarily 3 m in length, and split using a cleaver. One half of the core was returned to the box for geologic logging and the other half was bagged and tagged with sample number. Geologic logging was done in the field or at facilities in Silver Peak, Nevada.

For holes GCH-07 through GCH-12 and CM001 through CM004 core was transported to ALS USA by Century personnel. A Century geologist used logging facilities where each hole was viewed in its entirety for RQD, core recovery and geologic logging. The geologist selected and marked sample intervals for assay. Select holes had intervals of < 0.3 m removed for geotechnical and specific gravity testing. All core was photographed by ALS USA staff following logging. ALS USA staff split any duplicate samples with a saw or knife and whole-core samples were bagged and tagged as marked by the geologist for preparation and assay. Holes GCH-12 and CM001 through CM003, were split in half over their entire length using a saw or knife by ALS USA staff as marked by the geologist, the right half of the core down-hole was bagged by ALS USA staff for preparation and assay.

Figure 11-1 shows core from 2019 NQ drill hole and Figure 11-2 shows core from 2018 HQ drill hole, both ready for sample processing. All core and surface samples were delivered to one of two certified independent laboratories, ALS USA, accredited by the Standards Council of Canada (SCC) to ISO/IEC 17025:2017 or Bureau Veritas Minerals (BV Minerals), as ISO 17025 accredited laboratory in Reno, Nevada by Century personnel.



**Figure 11-1: Core from GCH-12, (Source: GRE, 2020)**



**Figure 11-2: Core from CM003, (Source: GRE, 2020)**

### **11.1.2 Analytical Procedures**

Samples from Enertopia's 2018 drilling campaign were prepared at MEG laboratory where lithium standards, blanks and duplicates were inserted into the sample stream for QA/QC purposes. The samples were dried, weighed and crushed to pass -10 mesh and split using a riffle splitter. A 150-gram split was then pulverized and delivered to ALS USA for analysis using the ALS method ME-ICP61. This method provided analyses for 33 elements with lithium added as the 34th element. The method has a detection limit of 10 ppm for Li.

The samples from metallurgical hole (TOP-02M) drilled by Enertopia were submitted separately for preparation and analysis. There were 26 samples submitted including four QA/QC samples, consisting of one blank, one standard and two duplicate samples.

Samples from Century's drilling campaigns were crushed, split and pulverized at the laboratory in preparation for analysis. After pulverizing, two subsamples were selected by the laboratory for duplicate analysis. Century submitted eight pulp duplicates to a secondary laboratory as check samples. The pulp duplicates are principally used by the primary laboratory for internal QC and were not relied on by Century to evaluate the overall quality of the sampling program.

Samples from holes DCH-01 through DCH-17 and GCH-01 through GCH-06 were analyzed by 33-element, 4-acid ICP-AES or ICP-MS and soil and rock chip samples were analyzed by 33-element 4-acid ICP-AES and/or 35-element aqua regia AAS. Samples from holes GCH-07 through GCH-12 and CM001 through CM004 were analyzed by 60-element, 4-acid ICP-MS, which added the ability to test for rare earth elements.

### **11.1.3 Quality Assurance and Quality Control**

For samples collected during Enertopia's drilling program and for most samples collected during Century drilling program from 2017 to 2022 drilling programs, the in-house QA/QC procedures were limited to insertion of blanks, CRM standards and duplicate samples.

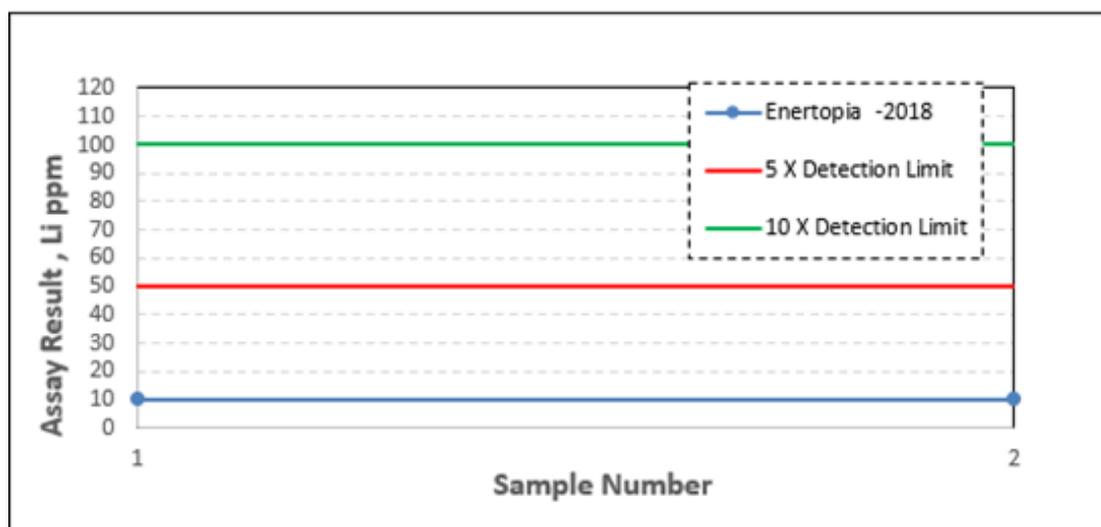
Century used the same standard procedure for blanks, standards and duplicate accuracy for all the drilling programs. Results of blank assays are acceptable when 95% or more of the assays from each batch of samples fall inside of +/- two standard deviations (SD) of the population's mean. Results of standard assays are acceptable when 95% or more of the assays from each batch of samples fall inside of +/- 2SD when using the standard data. The results of duplicate assays are acceptable when the difference between original and duplicate assays is 30% for split core, chip, or sample duplicates and 10% for pulp duplicates.

If a quality control sample returns results outside of the predetermined limit, the quality control sample will be re-assayed along with the samples on each side of the quality control sample in question.

### 11.1.3.1 2017-2018 Program

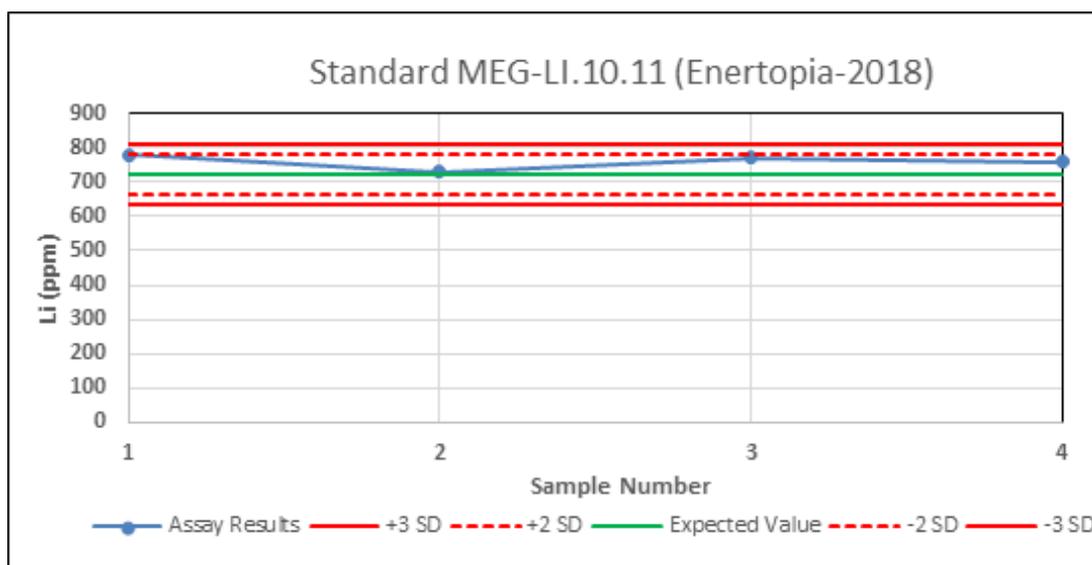
A total of 119 core samples from the Enertopia drilling campaign were collected from holes TOP-01 to TOP-04. A total of 11 QA/QC samples to the sample stream including two commercially prepared blank samples (at a rate of one blank per 60 samples), four commercially prepared standard samples (at a rate of one standard per 30 samples) and five duplicate samples (at a rate of one duplicate per 24 samples). Duplicate samples were made from one half core cut in half again, resulting in two-quarter cores which were bagged and sampled separately.

Figure 11-3 presents the assay results of the blanks (less than 10 ppm) by ALS USA showing there is no contamination.



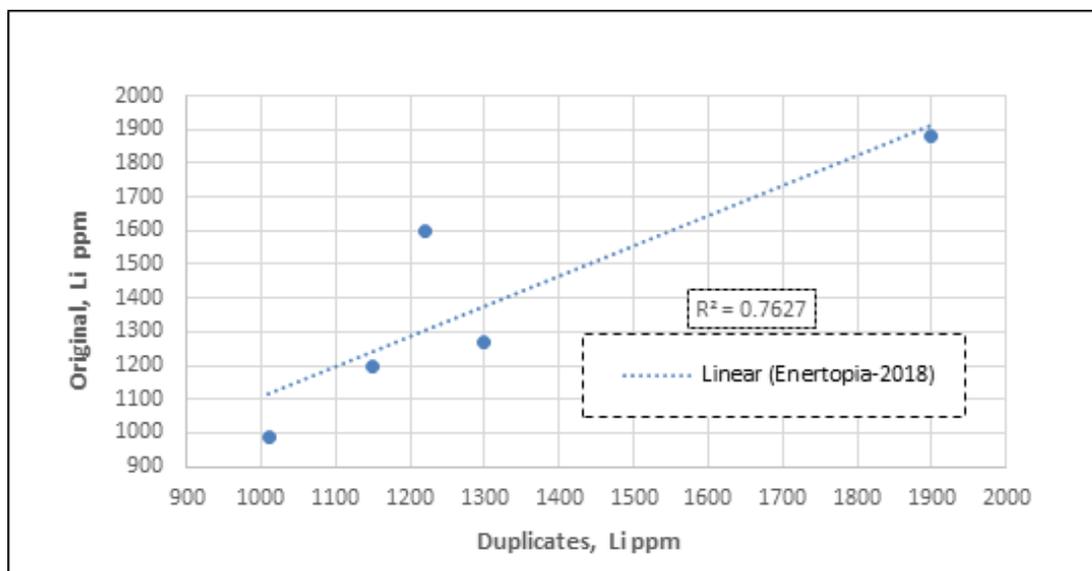
**Figure 11-3: Blank Samples, Enertopia Drilling Program 2018 (Source: GRE, 2022)**

A single standard, MEG-Li.10.11 (Li=723.1 ppm), was purchased in durable, pre-sealed packets from MEG. Figure 11-4 shows a control chart for the MEG-Li.10.11. The QP finds the results show reasonable analytical accuracy.



**Figure 11-4: CRM MEG-Li.10.11, Enertopia Drilling Program 2018 (Source: GRE, 2022)**

Five duplicate samples were inserted in the Enertopia sample stream. Figure 11-5 presents the comparison of the original and duplicate assays showing acceptable correlation with an  $R^2$  of 0.76. There is a failure on one duplicate sample, but no record exists to show any follow-up on the sample was done by Enertopia.

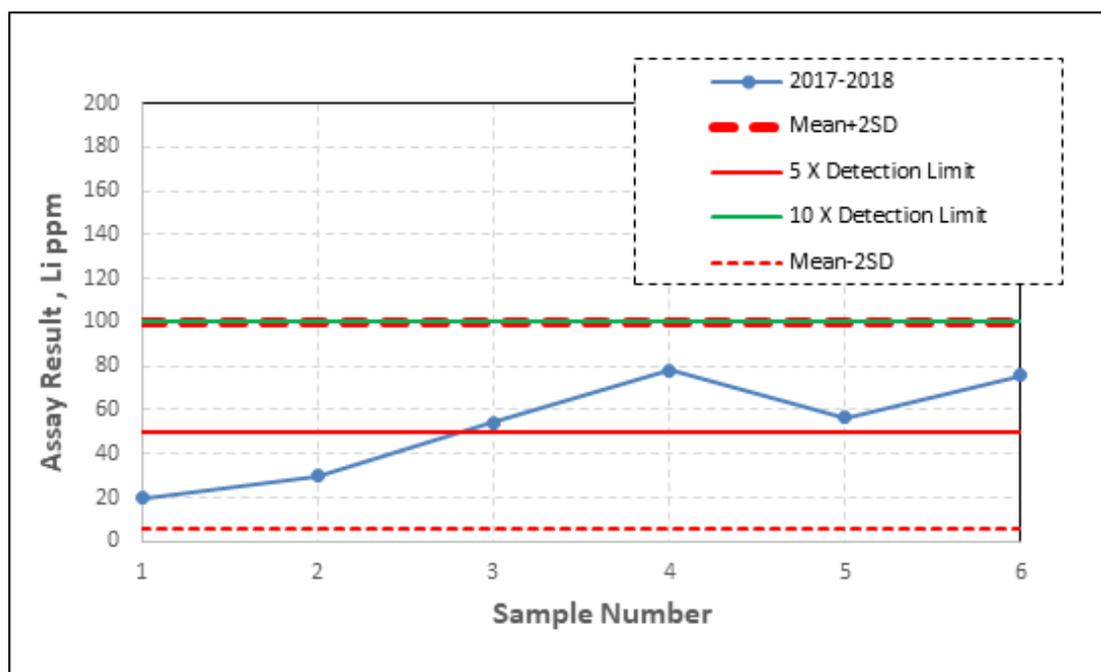


**Figure 11-5: Duplicate Sample Analysis, Enertopia Drilling Program 2018 (Source: GRE, 2022)**

During the 2017-2018 Century drilling program, a total of 618 core samples were collected from holes DCH-01 to DCH-17 and holes GCH-01 to GCH-06. For this drilling program, six blank samples (at a rate of one blank per 100 samples) and 19 standards (at a rate of one standard per 32 samples) were inserted in the stream sample.

Blank material used in the 2017-2018 drill programs was gray, silica-rich gravel sourced from a road construction project on North Redrock Road, Wasatch County, Nevada.

Figure 11-6 presents the assay results of the blanks by ALS USA. The drilling program 2017-2018 shows there is no contamination.



**Figure 11-6: Blank Samples, Drilling Program 2017-2018 (Source: GRE, 2022)**

Three different standards, including MEG-Li.10.13 (Li=1,180 ppm), MEG-Li.10.14 (Li=810 ppm), and MEG-Li.10.15 (Li=1,580 ppm) were purchased in durable, pre-sealed packets from MEG. Century geologists routinely reviewed the standard sample assay results; these results consistently falling within the anticipated range of variability, which is the 95% confidence limits of +/- 2SD, as described by the manufacturer of the standards. Figure 11-7, Figure 11-8 and Figure 11-9 show a control chart for the MEG-Li.1013, MEG-Li.1014 and MEG-Li.1015, respectively. The QP finds the results show reasonable analytical accuracy.

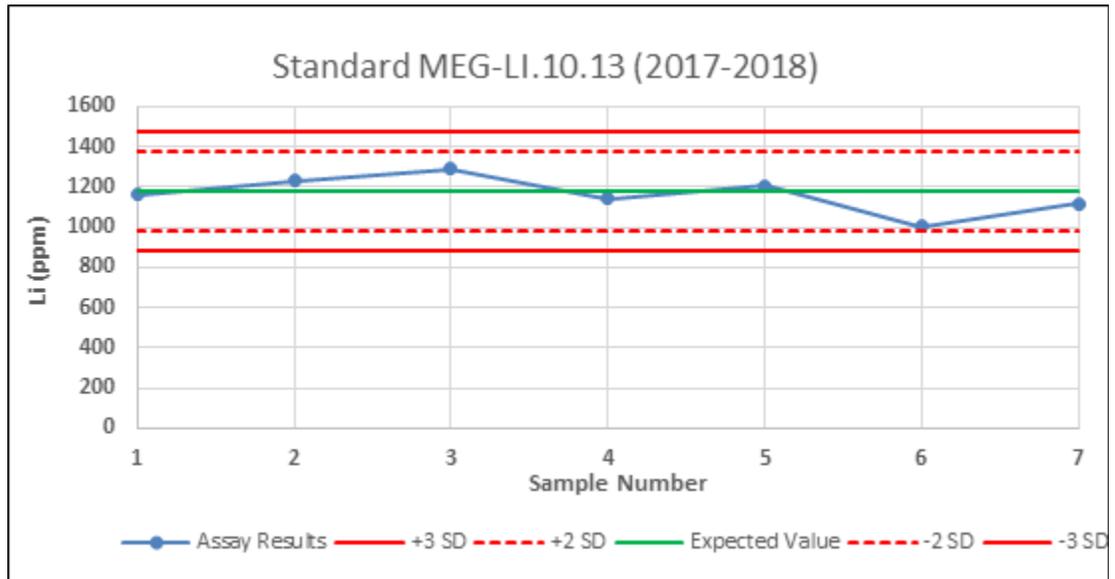


Figure 11-7: CRM MEG-Li.10.13, Drilling Program 2017-2018 (Source: GRE, 2022)

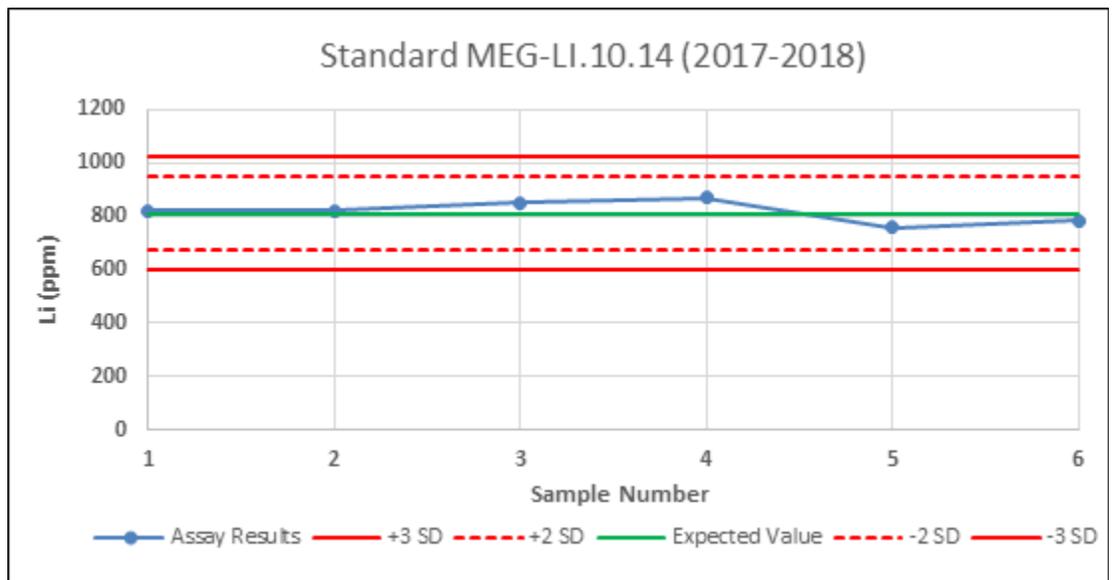
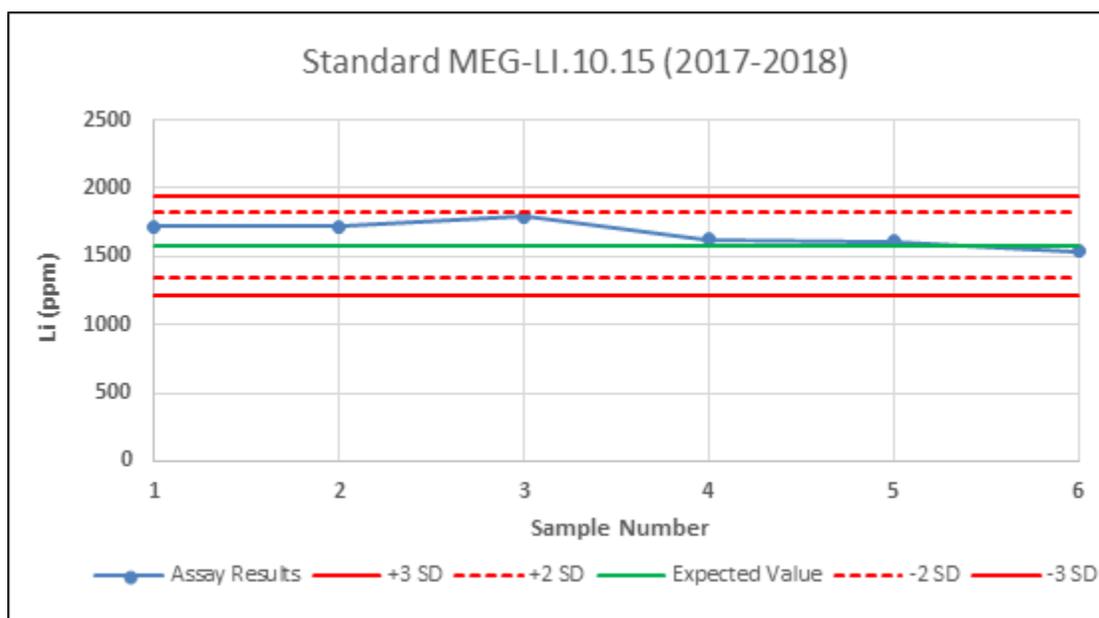


Figure 11-8: CRM MEG-Li.10.14, Drilling Program 2017-2018 (Source: GRE, 2022)



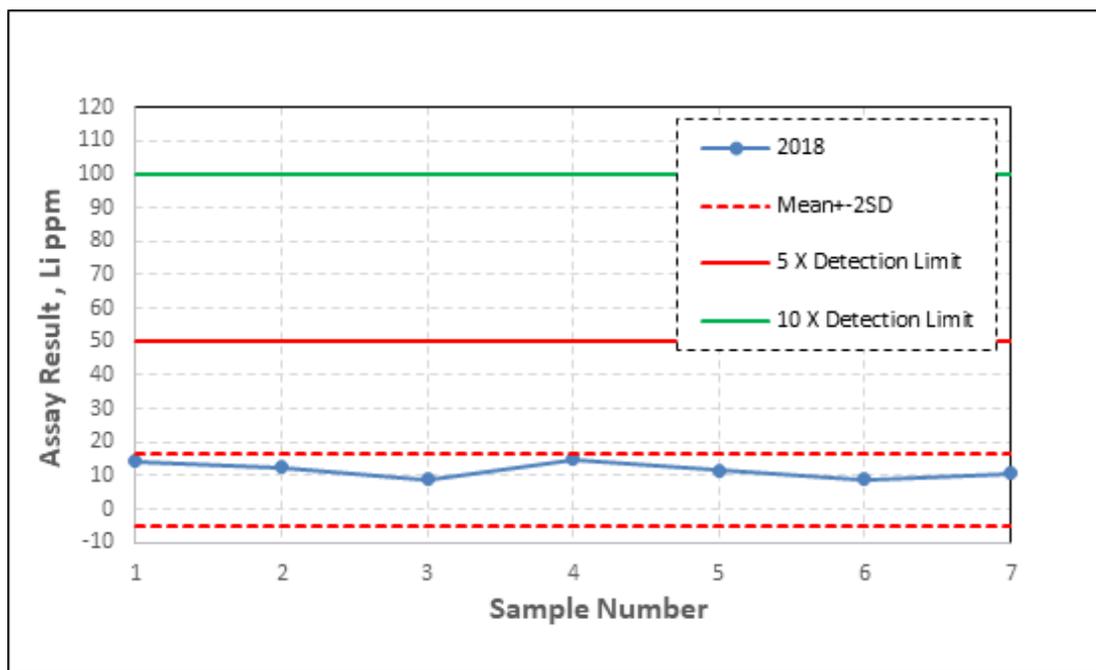
**Figure 11-9: CRM MEG-Li.10.15, Drilling Program 2017-2018 (Source: GRE, 2022)**

In 2018, four additional holes CM001 to CM004 totaling 397.5 m were drilled on the Property. Since the core samples were assayed in 2020, their QA/QC procedure is described separately from the drilling program 2017-2018.

A total of 132 core samples were collected with seven blank samples (at a rate of one blank per 19 samples), six core duplicates (at a rate of one blank per 22 samples) and six standards (at a rate of one standard per 22 samples) inserted in the stream sample.

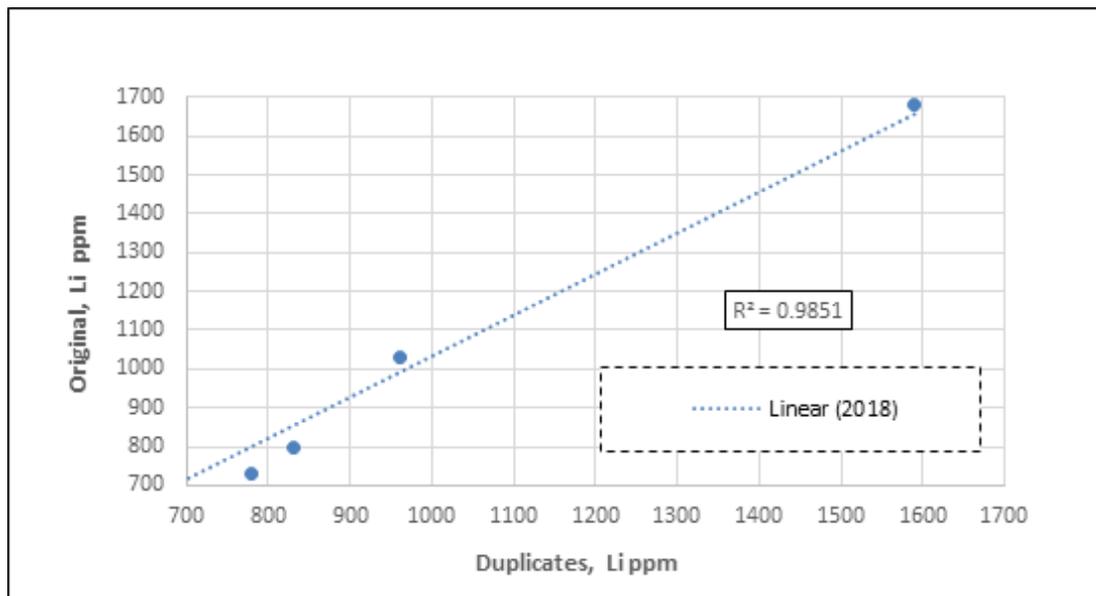
Blank material was the same used in the 2017-2018 drill program.

Figure 11-10 presents the assay results of the blanks by ALS USA. The drilling program 2018 shows there is no contamination.



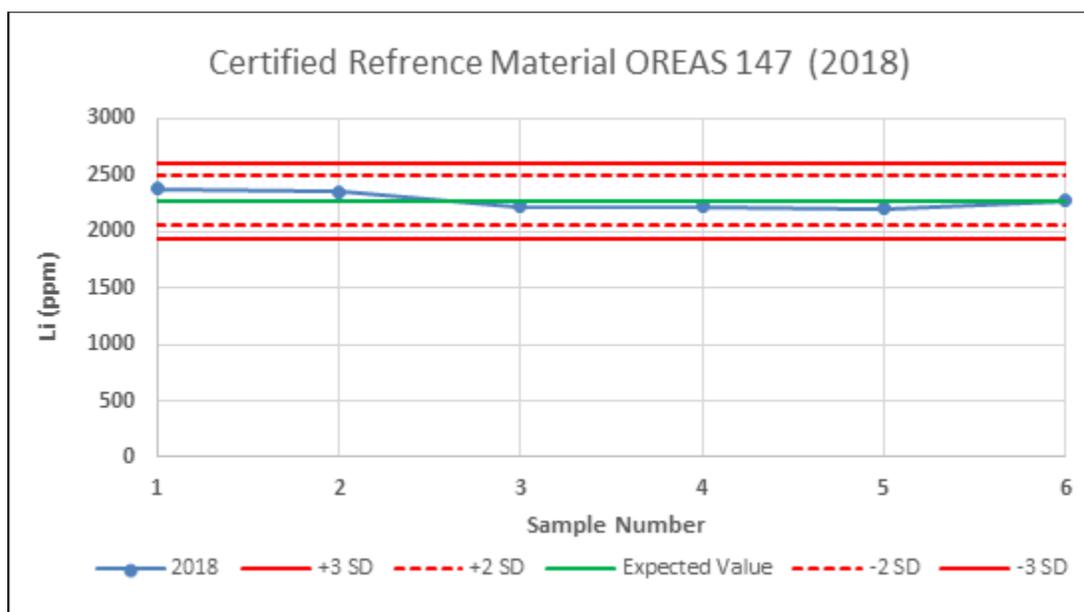
**Figure 11-10: Blank Samples, Drilling Program 2018 (Source: GRE, 2022)**

One sample duplicate, either half or quarter core was assayed for every 22 samples submitted. Six duplicate samples were taken and Figure 11-11 presents the comparison of the original and duplicate assays showing very good correlation with an  $R^2$  of 0.98.



**Figure 11-11: Duplicate Sample Analysis, Drilling Program 2018 (Source: GRE, 2022)**

The OREAS 147 standard with a specific certified assay value of 2,270 ppm Li  $\pm$  110 ppm was used. Standards were inserted into the Century sample bags with company tags. Figure 11-12 shows a control chart for the OREAS 147. All samples returned assay values within  $\pm$  2SD. The QP finds the results show reasonable analytical accuracy.



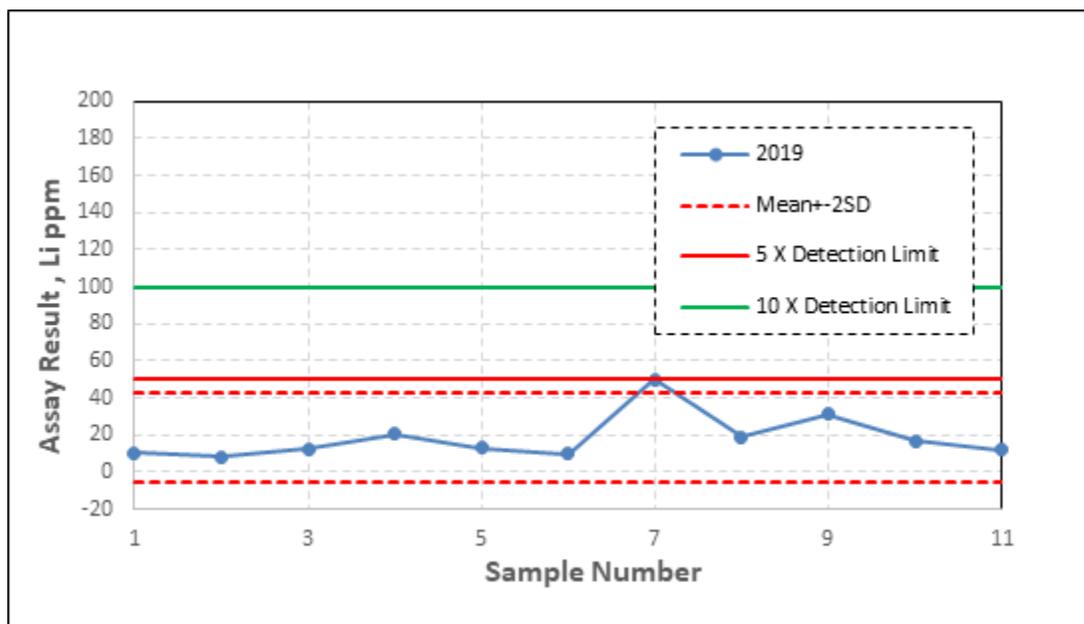
**Figure 11-12: OREAS 147, Drilling Program 2018 (Source: GRE, 2022)**

For the 2018 drilling campaign, assay results from the blank, standard and duplicate samples indicated no systematic errors.

### 11.1.3.2 2019 Program

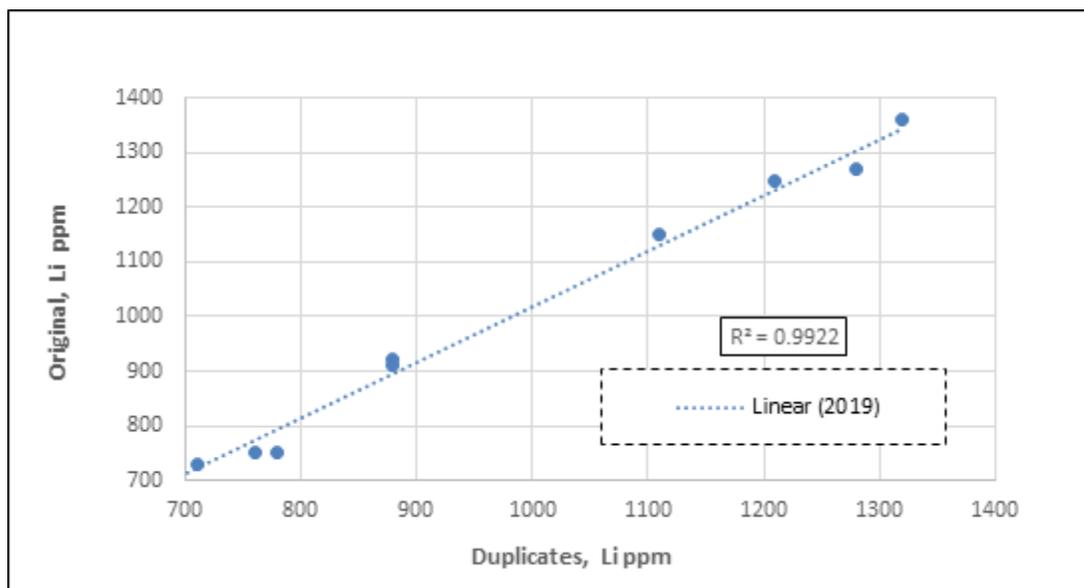
A total of 226 core samples were collected from holes GCH-07 to GCH-12. For this drilling program, 11 blank samples (at a rate of one blank per 20 samples), 11 core duplicates (at a rate of one blank per 20 samples) and 12 standards (at a rate of one standard per 19 samples) were inserted in the sample stream.

Blank samples for this program were quartz silica sand samples from OREAS. Figure 11-13 presents the assay results of the blanks in the 2019 drilling program. The data shows there is only one sample with assay more than +2SD of the population's mean. The difference between blank and +2SD is only 6.0 ppm and considering the laboratory detection limit for lithium, it still can be considered that there is no contamination.



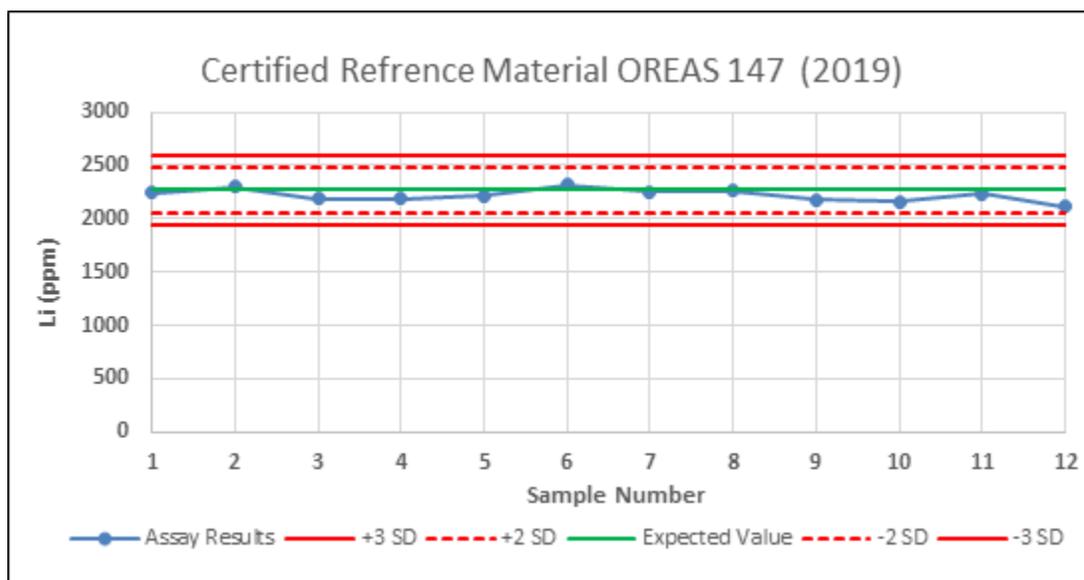
**Figure 11-13: Blank Samples, Drilling Program 2019 (Source: GRE, 2022)**

In this program one sample duplicate, either half or quarter core was assayed for every 20 samples submitted. Eleven duplicate samples were taken and Figure 11-14 presents the comparison of the original and duplicate assays showing very good correlation with an  $R^2$  of 0.99.



**Figure 11-14: Duplicate Sample Analysis, Drilling Program 2019 (Source: GRE, 2022)**

OREAS 147 standard with a specified assay value of 2,270 ppm Li  $\pm$  110 ppm was used. The standards were inserted into the Century sample bags with company tags. Figure 11-15 shows a control chart for the OREAS 147. All samples returned assays values within  $\pm$  2SD. The QP finds the results show reasonable analytical accuracy.



**Figure 11-15: OREAS 147, Drilling Program 2019 (Source: GRE, 2022)**

For the 2019 drilling campaign the blank, standard and duplicate sample returned assay values all within set tolerances, indicating no systematic errors.

### 11.1.4 Sample Security

Century maintains formal chain-of-custody procedures during all segments of sample transport. Samples prepared for transport to the laboratory are bagged and labeled in a manner which prevents tampering and remain in Century control until released to the laboratory. Upon receipt by the laboratory, samples are tracked by a sample number assigned and recorded by the geologist. Retained core, sample reject material and pulps are stored at a secure storage facility in Silver Peak (Figure 11-16), at ALS USA or BV Minerals laboratories.



**Figure 11-16: Core Storage in Silver Peak (Source: GRE, 2020)**

### **11.1.5 QP Comments on Section 11 (2017-2019)**

The QP finds the sample preparation, analytical procedures and security measures employed by Century to be reasonable and adequate to ensure the validity and integrity of the data derived from Century's sampling programs between 2017 and 2019.

Items to consider for the Project are: 1) continue to utilize the procedures in place for data collecting, sampling and QA/QC for analytical work, 2) increase assay confidence through systematic selection of samples for check assays at a second analytical laboratory, 3) continue to review analytical laboratories utilized for future work and 4) catalogue locations of archived core, sample reject material and pulps.

The QP also confirms that the sample preparation analytical procedures and security measures conducted by Enertopia in 2018 are reasonable and adequate to ensure the validity of the data from Enertopia's sampling program for resource estimation.

## **11.2 Campaign 2022**

Century collected samples from the eight sonic holes (CVS1 to CVS8) drilled in June 2022 on the Property. Drilling of hole CVS8 was completed at the time of the QP's site visit. Sample preparation for all holes was done nearly in the same way at the Century Property as the in-house sample preparation.

### **11.2.1 Sonic Drill Sampling**

Sonic drilling utilizes rotation, sound vibrations and a small amount of water (as necessary) to penetrate the subsurface. In this application, a 209.6 mm casing was set to 3 to 6 mbsg and then a 152.4 mm or 101.6 mm inner-diameter core barrel was used to collect the core sample. As the drill advances, the core is pushed upwards into the core barrel using pushrods attached to it and the drill head. In general, a 9 m length of core was collected in each run using three 3 m core barrel sections. The core barrel and each attached rod above the core barrel was lifted and removed from the hole for each run. When collecting the core, the top section of core barrel is brought above ground and disconnected from the string, where 3 m of recovered core is placed in labeled clear plastic bags in approximately 0.6 m pieces. The core is collected in reverse order of coring from the bottom of the core barrel section; for example, 5.5 to 6 m, 4.9 to 5.5 m and so on. This is done for each 3 m section of core barrel. The plastic bags of core were placed in mobile storage containers for transport off site.

### **11.2.2 Sample Preparation**

Upon completion of each hole, the core was transported to Century's facility at the Tonopah Airport where the site geologist and field technician took disk and longitudinal slice samples for assaying. In the disk sampling method, disk samples (whole core) were cut with hand tools, with a maximum length between 6.1 to 12.2 cm, from the top of each 1.5 m or 3 m sonic sample interval. In longitudinal sampling, samples were cut with hand tools in longitudinal slices in which a narrow and shallow slice from the top to the bottom of each sample interval was collected.

### **11.2.3 Analytical Procedure**

Samples were transported to ALS USA. The samples were initially weighed, dried (as required), crushed to 70% <2 mm, then pulverized up to 250 g 85% <75  $\mu\text{m}$  and split using a riffle splitter. The samples were digested using aqua regia. The sample was then subjected to ALS USA's MEMS-61r method, which is an ICP-MS and ICP-AES analysis of digested 0.5 g samples. ALS USA notes the method has a precision of 1% for samples containing between 10 and 10,000 ppm Li.

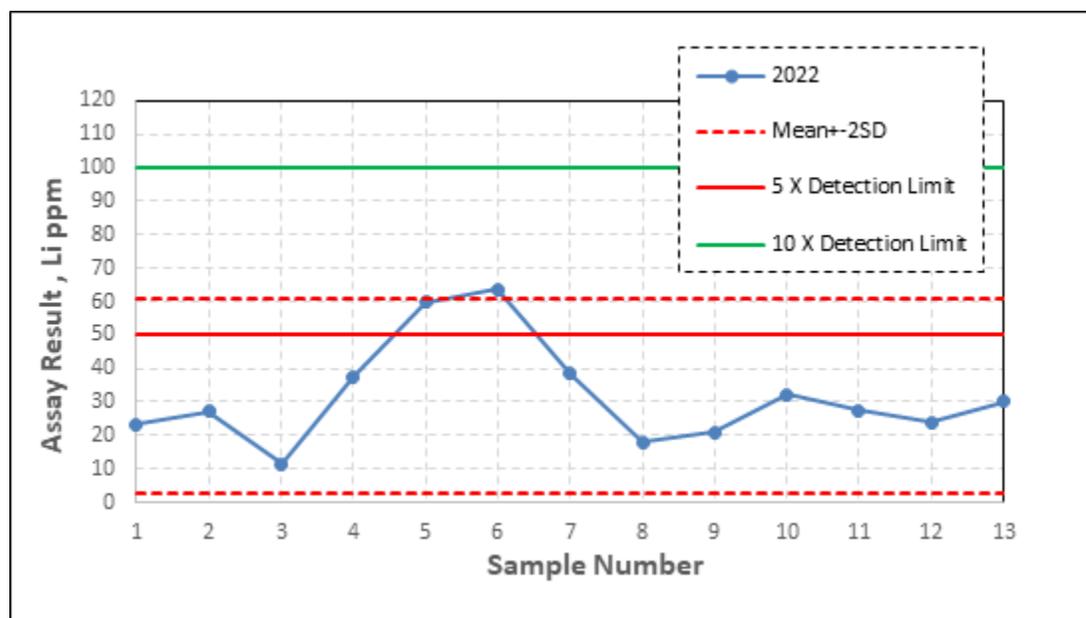
### **11.2.4 Quality Assurance and Quality Control**

Century's in-house QA/QC procedures in 2022 were limited to submitting 12 field duplicate samples as check samples, 13 blank samples and 13 standard samples to the laboratory for all 234 sonic samples. The standards and the blanks were purchased from OREAS and their assay results were routinely reviewed by a Century geologist. The results fall within the anticipated

range of variability as described by the manufacturer of the standards and as a result the QP is of the opinion that there is no indication of systematic errors that might be due to sample collection or assay procedures.

### 11.2.4.1 Blanks Analysis

Blank samples were inserted into the sample stream at a rate of one blank sample per 18 sonic samples. The blank sample material from OREAS was quartz silica. Figure 11-17 presents the assay results of the blanks by ALS USA for the 2022 drilling program. The data shows there is only one sample with an assay value more than +2SD of the population's mean. The difference between that blank and +2SD is only 2.7 ppm and considering the laboratory detection limit for lithium, it still can be considered that there is no contamination.

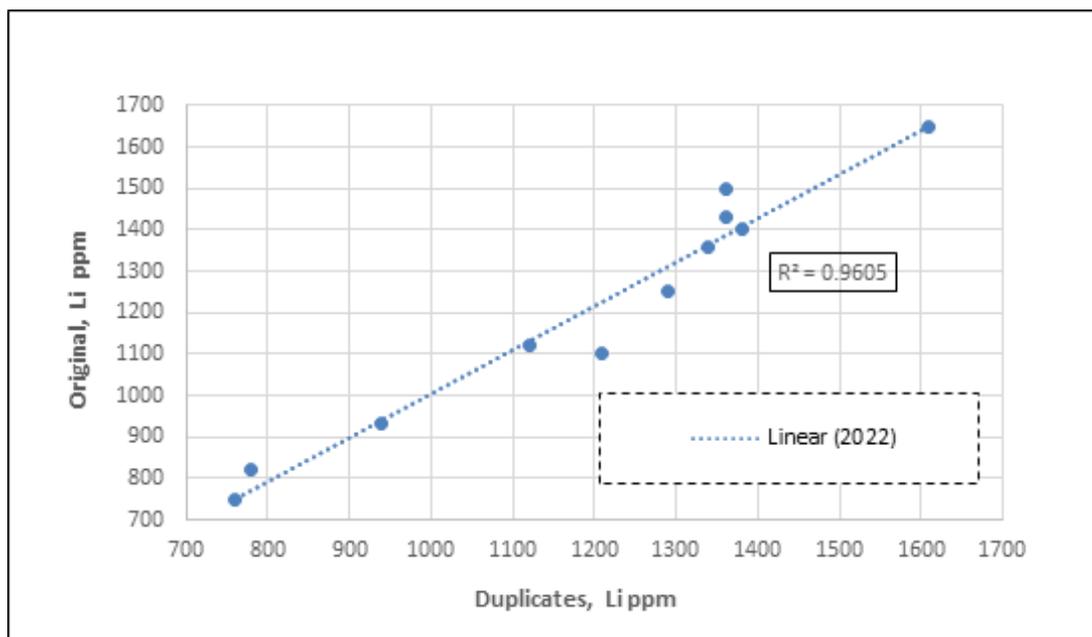


**Figure 11-17: Assay Results, Blank Samples, Sonic Program 2022 (Source: GRE, 2022)**

### 11.2.4.2 Duplicate Analysis

Based on Century's in-house QA/QC procedure, duplicate samples were inserted into the sample stream at a rate of one duplicate sample for every 19.5 sonic samples. Duplicate samples were prepared in the same manner as all samples, from the disk or longitudinal slice samples and were assayed at the same laboratory. Figure 11-18 shows a comparison of the field duplicates with the original assays.

The Q-Q plot effectively indicates no scatter in the data, with an  $R^2$  value of 0.9605. Some scatter occurs at the upper-grade values but is still within acceptable range in the opinion of the QP.

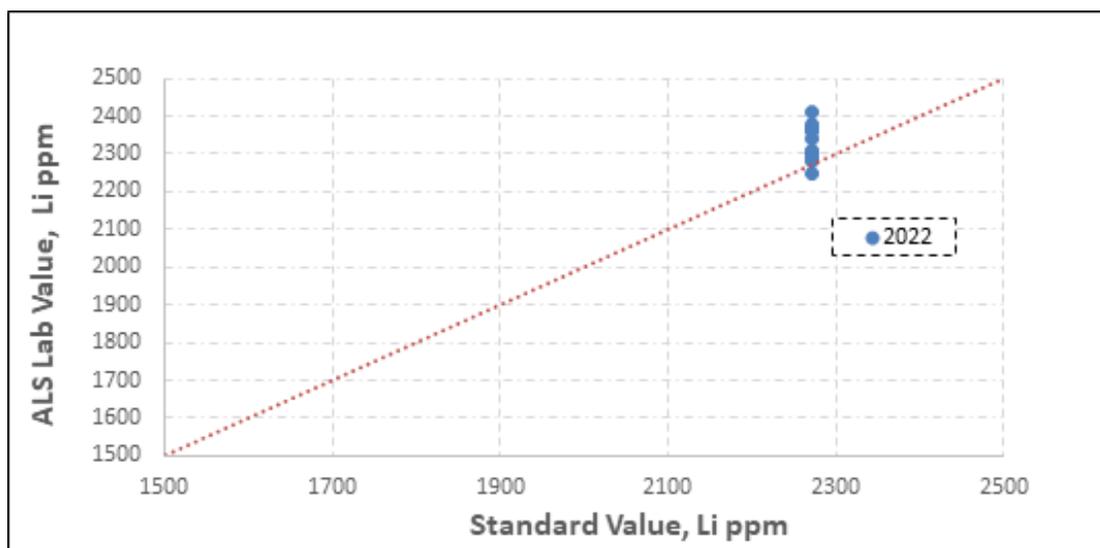


**Figure 11-18: Duplicate Comparison, 2022 (Source: GRE, 2022)**

### 11.2.4.3 Standards Analysis

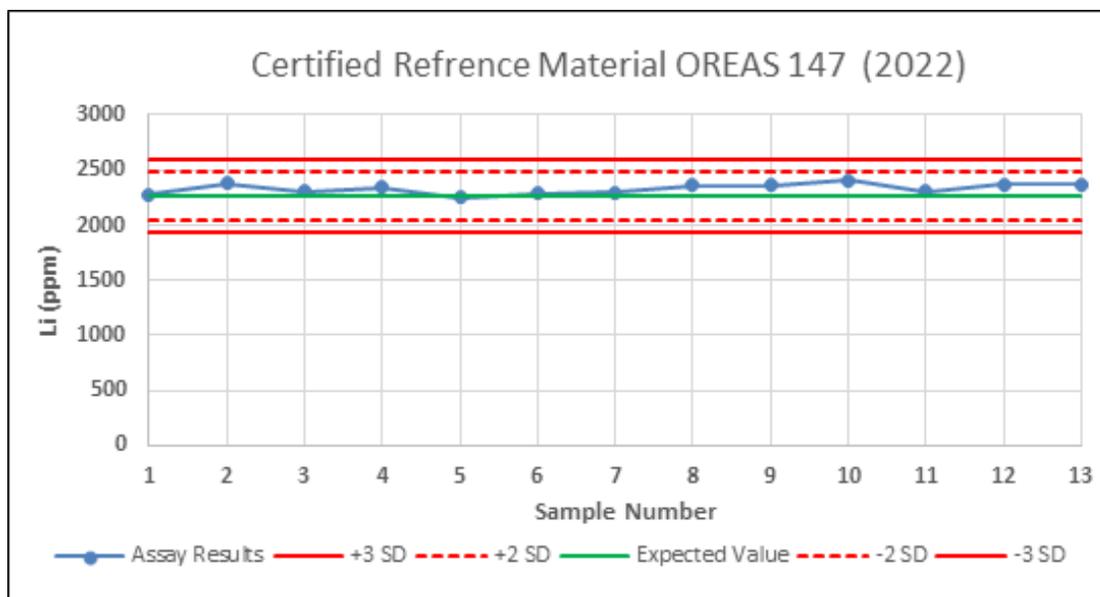
Commercially prepared standard samples were inserted into the sample stream at a rate of one standard per 18 sonic samples. Standard OREAS 147 were inserted into the Century sample bags with company tags.

Figure 11-19 shows a scatter plot of the certified value for each assay standard compared to the value obtained by ALS USA. The laboratory’s analytical results generally correlate well with the standard values, with no outliers. A 45-degree line represents a good correlation between the standard assay certified value and actual assay results. This line passes through almost all of the sample sets, with the majority of the points directly adjacent to the line, indicating acceptable accuracy performance for the standards. The scatter that is seen for lithium is acceptable.



**Figure 11-19: Assay Standard Results (2022) (Source: GRE, 2022)**

Figure 11-20 shows a control chart for OREAS 147. Control lines are plotted on the chart for the expected value of the CRM, +/- 2SD of the expected value and +/- 3SD of the expected value. CRM assay results are plotted in order of analysis. All samples returned assays values within +/- 2SD. The QP finds the results show reasonable analytical accuracy.



**Figure 11-20: CRM OREAS 147 (Source: GRE, 2022)**

### **11.2.5 Sample Security**

Century maintained formal chain-of-custody procedures during all segments of sample transport.

Samples prepared for transport to ALS USA were placed into cloth bags, labeled and sealed to prevent tampering. Blank and standards were added to each run before submission to ALS USA. Samples remained in Century's control until released to the ALS USA. Retained samples were securely stored in Century's storage facility at the Tonopah Airport. Rejects and pulps from these samples were returned to Century's facility for potential future check analysis. A chain of custody was documented throughout the entire transportation process.

### **11.2.6 QP Comment on Section 11 (2022)**

The QP finds the sample preparation, analytical procedures, and security measures employed by Century to be reasonable and adequate to ensure the validity and integrity of the data derived from Century's 2022 sampling program.

Based on observations and conversations with the Century field geologist and the review and evaluation of Century's QA/QC program, Dr. Samari makes the following recommendations:

- Although the 2022 sonic program included both disk and longitudinal sampling methods, the longitudinal sampling method should be the only sampling method used for future drilling programs. A maximum 12.7 cm disk sample from the top of each 3 m sample interval does not reflect the amount of lithium for the entire 3 m sample interval.
- Formal, written procedures for data collection and handling should be developed and made available to Century field personnel. These should include procedures and protocols for fieldwork, logging, database construction, sample chain of custody, and documentation trail. These procedures should also include detailed and specific QA/QC procedures for analytical work, including acceptance/rejection criteria for batches of samples.
- A detailed review of field practices and sample collection procedures should be performed on a regular basis to ensure that the correct procedures and protocols are being followed.
- Review and evaluation of laboratory work should be an ongoing process, including visits to the analytical laboratories involved.
- Standards, blanks, and duplicates, including one standard, one duplicate, and one blank sample should be inserted every 20 interval samples, as is common within industry standards.

## 12.0 DATA VERIFICATION

This section is unchanged from the 2024 NI-43-101 Feasibility Study

Data verification efforts included on-site inspections of drilling activity, core storage facility, independent laboratory facilities, check sampling, and auditing of the project database.

### 12.1 Site Inspections

The most recent site visits made by independent QPs Samari and Lane was from 31 May to 1 June 2022, and QP Fayram in November 2023. QP Lane also visited the Property in March 2019 and QP Fayram on several occasions since August 2019. QP Yuan visited the Property in 2022.

### 12.2 Drill Hole Locations and Collar Identification

#### 12.2.1 Collar Coordinate Validation (2017-2019)

Geographic coordinates for all drill hole collar locations were recorded by GRE's QP in the field using a hand-held Trimble or Garmin GPS units. Drill holes have permanent (rebar and tag) markers erected at their collar locations (Figure 12-1). Drill hole elevations were cross referenced with professional elevation surveys conducted by Strix Imaging in February 2018 and March 2019.



**Figure 12-1: Drill Collar Marker at DCH-03 (Source: GRE, 2020)**

### **12.2.2 Collar Coordinate Validation (2022)**

QP Samari used a handheld GPS, model Garmin 64st, to check the geographic coordinates of all drilled holes in the 2022 drilling campaign. The average variance between field collar coordinates and collar coordinates contained in the Project database for the eight holes is roughly 4.5 m, which is within the expected margin of error (Table 12-1). The average variance between field collar elevation and holes CVS1, CVS2, CVS5, CVS6, and CVS7 contained in the project database is 4.4 m, which is within the expected margin of error. The variances for holes CVS3, CVS4, and CVS8 are 45.4, 16.5, and 69 m respectively, which is not acceptable.

Elevations from the topographic maps for holes CVS1 to CVS8 correlate well with the coordinates collected by QP Samari, with maximum, minimum, and average differences of 5.6, 0.2, and 3.5 respectively (Table 12-2). Using the site topographic map and engineering judgment, QP Samari adjusted the elevation of all holes. Table 12-2 shows the modified elevations for these eight holes, which are suitable and were replaced in the database and used for mineral resource estimation.

During QP Samari's field visit, drill hole collars were located with a Century geologist using a handheld GPS as collars have no permanent markers. In following Century's protocol, a 61 cm rebar with attached metal marker stamped with hole name and company initials was installed at each collar in October 2023 for future reference.

All drill hole collars drilled on the Property have only been surveyed in the field using handheld Garmin GPS MAP64s. QP Samari recommends that all existing holes and future drill programs be surveyed using a differential GPS. These coordinates should then be compared to the digital topography in areas where lidar data is available. Any inconsistencies between the data set should then be reconciled.

**Table 12-1: Collar Coordinate Inspections**

General Hole Information			Coordinates from Century Database (UTM WGS84)			Coordinates from Hand-held GPS (UTM WGS84) by GRE			Distance Difference (m)	Elevation Difference (m)
No.	Hole ID	Depth (m)	Easting	Northing	Elevation (m)	Easting	Northing	Elevation (m)		
1	CVS1	76.2	456606.69	4178144.33	1371.7	453605.02	4178145.45	1376.0	2.0	4.3
2	CVS2	76.2	453285.84	4178426.29	1360.1	453286.71	4178424.73	1365.0	1.8	4.9
3	CVS3	76.2	453259.19	4177500.55	1327.6	453254.54	4177504.01	1373.0	5.8	45.4
4	CVS4	76.2	453214.74	4177834.66	1354.5	453217.20	4177832.87	1371.0	3.0	16.5
5	CVS5	61.0	455003.84	4179546.34	1365.3	455003.64	4179543.56	1371.0	2.8	5.7
6	CVS6	76.2	454923.91	4180104.31	1354.9	454920.22	4180105.55	1361.0	3.9	6.1
7	CVS7	61.0	454755.55	44180320.37	1351.0	454752.91	4180320.83	1352.0	2.7	1.0
8	CVS8	76.2	454548.08	4180629.85	1411.0	454540.75	4180642.09	1342.0	14.3	69.0
Maximum Difference									14.8	69.0
Minimum Difference									1.8	1.0
Average Difference									4.5	19.1

**Table 12-2: Collar Coordinate Elevation Changes**

General Hole Information			Coordinates from Century Database (UTM WGS84)			Modified Elevation based on Topography		Coordinates from Hand-held GPS (UTM WGS84) by GRE			Elevation Difference (m)
No.	Hole ID	Depth (m)	Easting	Northing	Elevation (m)	Elevation (m)	Explanation	Easting	Northing	Elevation (m)	
1	CVS1	76.2	456606.69	4178144.33	1371.7	1371.6	Detailed topography from aerial drone surveys completed in 2018	453605.02	4178145.45	1376	4.4
2	CVS2	76.2	453285.84	4178426.29	1360.1	1360.4		453286.71	4178424.73	1365	4.6
3	CVS3	76.2	453259.19	4177500.55	1327.6	1367.4		453254.54	4177504.01	1373	5.6
4	CVS4	76.2	453214.74	4177834.66	1354.5	1365.8		453217.20	4177832.87	1371	5.2
5	CVS5	61.0	455003.84	4179546.34	1365.3	1371.2	Lower resolution topography	455003.64	4179543.56	1371	0.2
6	CVS6	76.2	454923.91	4180104.31	1354.9	1360.5		454920.22	4180105.55	1361	0.5
7	CVS7	61.0	454755.55	44180320.37	1351.0	1355.0		454752.91	4180320.83	1352	3.0
8	CVS8	76.2	454548.08	4180629.85	1411.0	1346.6	Like CVS1 to CSV4	454540.75	4180642.09	1342	5.0
										Maximum Difference	5.6
										Minimum Difference	0.2
										Average Difference	3.5

## 12.3 Geological Data Verification and Interpretation

This section is unchanged from the 2024 NI-43-101 Feasibility Study

During his site visit QP Samari checked the geological maps prepared by Century for the entire Property. QP Samari also visited Century's facility at the Tonopah Airport, where the sonic sample intervals were visually inspected and compared to the drill hole logs.

Field visit observations and inspection of sonic sample intervals generally confirmed geological maps of the project area. The lithology of exposed bedrock, alteration types, and significant structural features is consistent with descriptions provided in previous technical reports (Lane et al., 2018a; Lane et al., 2018b). QP Samari did not see any evidence in the field that might significantly alter or refute the current interpretation of the local geologic setting (Figure 12-2 and Figure 12-3).



**Figure 12-2: Geological Inspections in 2022, view of upper olive claystone partially covered by alluvium (Source: GRE, 2022)**

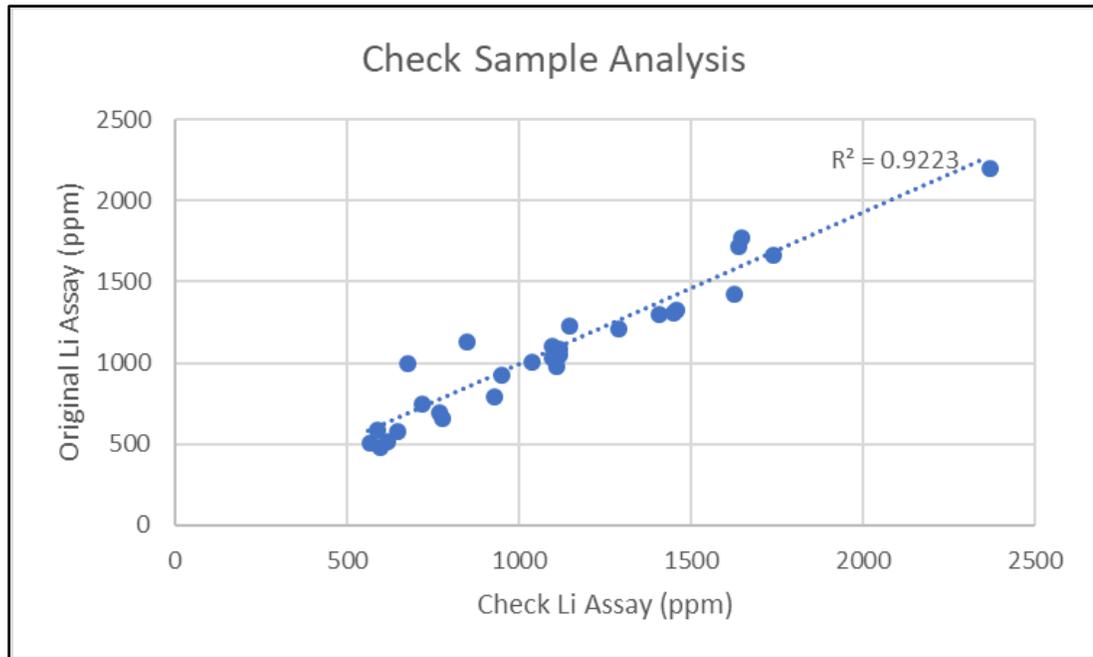


**Figure 12-3: Geological Inspections in 2022, view of upper olive claystone, tuffaceous mudstone covered by alluvium (Source: GRE, 2022)**

### 12.3.1 2017-2018

During the 2018 site inspection, GRE's QP selected 26 core sample intervals from eight drill holes for visual inspection and check sampling based on a review of the drill hole logs and original assay results. The sample intervals selected were gradational regarding both assay value and oxidation (i.e., high, moderate, and low original assay values; and above, within, and below the apparent oxidation horizons). Without exception, the core samples inspected accurately reflect the lithologies and sample descriptions recorded on the associated drill hole logs and within the Project database.

A total of 29 check samples (26 core intervals and three surface samples) were delivered to ALS Minerals in Elko, Nevada for analysis using the same sample preparation and analytical procedures as were used for the original samples (ALS USA 2018 to 2019). A comparison of the original versus check assay values for 24 of the 26 core samples shows a good correlation between the results, with an  $R^2$  of 0.92 (Figure 12-4). Two surface samples also show a good correlation with their original. Two samples were removed from the sample population: one core sample based on a discrepancy in sample length and one surface sample for which an original assay value was unavailable.



**Figure 12-4: Check Sample Analysis, 2018 (Source: GRE, 2018)**

### 12.3.2 2019

During the 2019 site inspection, QP Lane visited the Project during active drilling. She observed the drilling techniques and collection of the drill cores. QP Lane also visited Century’s core storage facility in Silver Peak where she observed core from CM002 and CM004 awaiting processing pending the settlement of a title dispute. While on site, QP Lane recommended geotechnical samples be collected from drill core at select intervals and requested an additional hole be drilled.

### 12.3.3 2022

In 2022, approximately 17 sonic sample intervals from drill holes, CVS2, CVS4, and CVS5, were selected by QP Samari for visual inspection based on a review of the drill hole logs (Figure 12-5). The samples inspected accurately reflect the lithologies and sample descriptions recorded on the associated drill hole logs and within the Project database.



**Figure 12-5: Visual Inspection of Sonic Samples (Claystone) in Century's Facility at the Tonopah Airport (Source: GRE, 2022)**

QP Samari collected 17 check samples (from three different drill holes) and four surface samples to verify the assay results. Of the 17 samples, 14 were taken as disk samples with a maximum length between 6.1 to 12.2 cm from top of each 3 m sonic sample interval. In addition, three samples were taken as longitudinal slice samples from the top to the bottom of each sample interval, with a length of 3 m (Figure 12-6). Disk and longitudinal samples were split into two samples, one to be inserted into the stream samples for assaying and the other for a check sample.

All 17 samples with four surface samples were bagged, labeled packed and delivered by QP Samari to Hazen Research Inc. (Hazen) in Golden, Colorado, USA.



**Figure 12-6: Check Sample Collection 2022 (Source: GRE, 2022)**

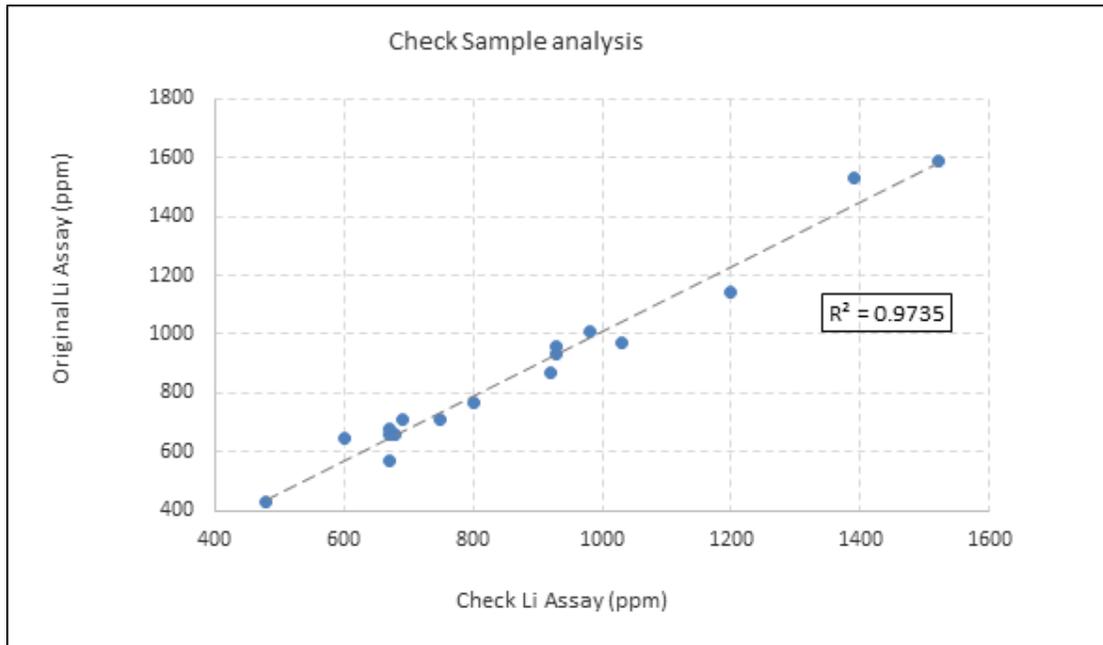
Samples were analyzed by ICP-OES, 32 elements + lithium for both drilled and surface samples. The results of analysis from Hazen are provided in Table 12-3.

**Table 12-3: Summary Table of Hazen Results with Original Assays (Drill Holes)**

No.	Hole No.	Sampe ID	From (m)	To (m)	Longitudinal Sampling	Disk Sampling	Request Analysis		Original Li (ppm)	Hazen Li (ppm)	Hazen Duplicate Li (ppm)
							ICP Scan with Emphasis on Lithium	Duplicate			
1	CVS2	104285	18.29	18.34		<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>		710	690	
2	CVS2	104290	31.39	31.45		<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>		930	930	
3	CVS2	104301	54.86	54.92		<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>		1530	1390	
4	CVS2	104308	76.14	76.20		<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>		434	480	
5	CVS4	104311	6.10	6.15		<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>		1590	1520	
6	CVS4	104323	33.53	33.58		<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	1140	1200	1190
7	CVS4	104330	54.86	54.92		<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>		1010	980	
8	CVS4	104337	73.15	73.20		<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>		870	920	
9	CVS5	104348	30.48	30.60		<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	650	600	590
10	CVS5	104349	30.48	33.53	<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>		660	670	
11	CVS5	104350	35.23	35.36		<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>		680	670	
12	CVS5	104351	36.58	36.70		<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>		660	680	
13	CVS5	104352	39.62	42.67	<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>		710	750	
14	CVS5	104353	39.62	39.75		<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>		970	1030	
15	CVS5	104354	42.67	45.72	<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>		770	800	
16	CVS5	104355	42.67	42.82		<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>		570	670	
17	CVS5	104356	45.72	45.84		<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>		960	930	

A comparison of the original versus check assay values for the 17 sonic samples shows good correlation between the results with an  $R^2$  of 0.9735 (Figure 12-7). Standard t-test statistical analysis was completed to look for any significant difference between the original and check assay population means. The results of the t-test showed no statistically significant difference between the means of the two trials (original versus check assay).

Assay results from four surface samples GRE01, GRE02, GRE03, and GRE04 also confirm the previous surface sampling results by Century that show the Zone 1 claystone has higher lithium grades than the tuffaceous mudstone (see Table 12-4).



**Figure 12-7: Check Sample Analysis, 2022 (Source: GRE, 2022)**

**Table 12-4: Summary Table of Hazen Results with Original Assays (Surface Samples)**

Surface Samples	GRE Sample ID	Easting	Northing	Elevation (m)	ICP Scan with Emphasis on Li	Duplicate	lithology	Hazen Li (ppm)	Hazen Duplicate Li (ppm)
1	GRE01	453274.3	4177639	1369	<input checked="" type="checkbox"/>		Upper Olive	990	
2	GRE02	453786.0	4177354	1391	<input checked="" type="checkbox"/>		Tuffaceous Mudstone	390	
3	GRE03	453778.1	4177364	1388	<input checked="" type="checkbox"/>		Upper Olive	630	
4	GRE04	453464.1	4179492	1347	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	Upper Part of Upper Olive	410	410

## **12.4 Database Audits**

A manual audit of the digital Project database was completed. About 10% of the original assay certificates for surface samples and all drill holes were spot-checked with the database for accuracy and clerical errors. The manual audit revealed no discrepancies between the hard-copy information and the digital database.

QP Samari also manually audited 40% of original assay certificates with the database for the Enertopia drilling program in 2018 and found no material errors.

QP Samari recommends that Century establish a routine internal mechanical audit procedure to check for overlaps, gaps, total drill hole length inconsistencies, non-numeric assay values, or any missing information in the database. After any significant database update, an internal mechanical audit should be conducted. The results of each audit, including any corrective actions taken, should be documented to provide a running log of the database validation.

## **12.5 QP Comments on Section 12**

### **12.5.1 Geology and Mineral Resources**

Based on the findings of QP Samari's verification of the sampling practices, drill hole collars in the field, visual examination of sample intervals, and the results of both manual and mechanical database audit efforts for the drilling campaigns, QP Samari considers the collar, lithology, and assay data contained in the Project database to be reasonably accurate and suitable for use in estimating Mineral Resources and Mineral Reserves.

### **12.5.2 Metallurgy**

Samples used in the metallurgical testing were delivered directly from ALS USA to the respective laboratories. Assays were verified by comparing the metallurgical head values with the respective intervals assayed in the database. QP Fayram verified the results in the database and other laboratories by checking and comparing assayed grades of solutions, heads and tails solids as determined from samples delivered by CMS to ALS USA. Results from filtration studies and on tailings handling were verified by comparison between two independent laboratories used in the study. Based on the verification completed, QP Fayram considers the metallurgical test results suitable to support feasibility level of study and the process design presented in this Report.

### **12.5.3 Mine Planning and Evaluation**

Mining and processing methods and infrastructure were verified by comparison to other industry standards and experience of the QPs.

The pit slope angles were determined from results provided by a single laboratory using core from three selected drill holes. The verification of densities was determined by comparing values between the data sets from four different laboratories.

Mining methods and costs were verified by comparison to other similar sized open pit mines and experience of QP Lane. Mining costs were developed from vendor quotations and comparisons to published and internal data used by the QP Lane in the preparation of similar studies. Other mining cost data used in the Report was sourced from the most recent Infomine cost data report. All mining costs used in the analysis were verified and reviewed by QP Lane and were assessed to be current and appropriate for use.

### **12.5.4 Geotechnical**

Select subsurface material samples and tailings samples were reviewed and tested for geotechnical characterization in support of infrastructure foundation and TSF designs. Moreover, geotechnical investigations, field mapping and laboratory testing have been performed under the oversight by QP Yuan. The geotechnical data is suitable to support the feasibility level design of the TSF in this Report.

## 13.0 MINERAL PROCESSING AND METALLURGICAL TESTING

This section summarizes the key metallurgical test work undertaken at the Century Pilot Plant since the completion of the April 24, 2024, Feasibility Study. Previous work can be readily found in the Feasibility Study with this study only updating previous work. The work completed after the feasibility study included:

- Pre-Leaching with Sodium Hydroxide and subsequent patent application.
- Identification of solution flow minimizing pump requirements.
- Change of deleterious element precipitation within prefiltered tailings
- High Pressure plate and frame filtration.
- Change of Direct Lithium Extraction methods from Koch Solutions to Amalgamated Research Inc. simulated moving bed recovery system with higher recovery and loading rates and further elimination of recycle loops to improve water balance.
- Removal of direct ion exchange softening with calcium and magnesium precipitation.
- Use of osmotically assisted reverse osmosis to increase lithium grades prior to carbonate precipitation to eliminate the need for evaporation and minimize recycle lithium chloride recycle requirements.
- Change in final raffinate precipitation and flocculation to improve calcium and magnesium carbonate recovery.

### 13.1 Pilot Study

The Amargosa Valley Pilot Plant continued operation after the completion of the 2024 FS. The objectives of the continuation were as follows:

- Investigate ways to improve overall process operation.
- Identify ways to significantly lower capital cost.
- Identify ways to significantly lower operating costs.
- Identify ways to significantly reduce water use.
- Identify ways to produce lithium carbonate without evaporation

The analytical work was performed by ALS and Century.

#### 13.1.1 Sample Selection

Century continued to use similar processed claystone as noted in the 2024 FS for leaching material. The material was unchanged to ensure identification of changes that were process related and not ore related. The material was taken from the deposit, crushed, screened, and bagged. The material was crushed to 100% passing ½-inch in size and was not pulverized.

### **13.1.2 Key Results**

The following are key results from continued operation of the Pilot Study.

- Pre-leach attritioning using high pH recycled water high with sodium hydroxide improved leaching recovery by as much as 5%.
- Using overflow techniques instead of pumping from the attrition scrubbing, leach tanks, and precipitation tanks eliminated a significant number of high-priced exotic metal pumps. The only pumps required from leach through filtering are sump pumps needed for spillage.
- Precipitation of deleterious elements was changed to effectively precipitate all deleterious elements within the final tails and not separately after thickening or settling. Raising of the pH to over 7.5 allowed for most of the deleterious elements to precipitate while the lithium remained in solution.
- High pressure plate and frame filtration was identified to significantly reduce the moisture within the final tails. Moisture was reduced from 50 to 60% water in the tails to less than 30% in the tails. The subsequent soluble loose was improved with a gain of 5 to 10% in overall recovery of lithium.
- Changing of the DLE extraction method allowed for a significant increase in lithium loading rates, higher eluate grades, and the elimination of recycle loops. Higher loading rates allowed for a significant reduction in adsorption tankage.
- Use of Osmotically Assisted reverse osmosis (RO) and special NF membranes produced by Dupont eliminated the need for evaporation. Lithium chloride grades over 15 gram per liter are readily obtained.

## **13.2 Results from the Pilot Testing Program**

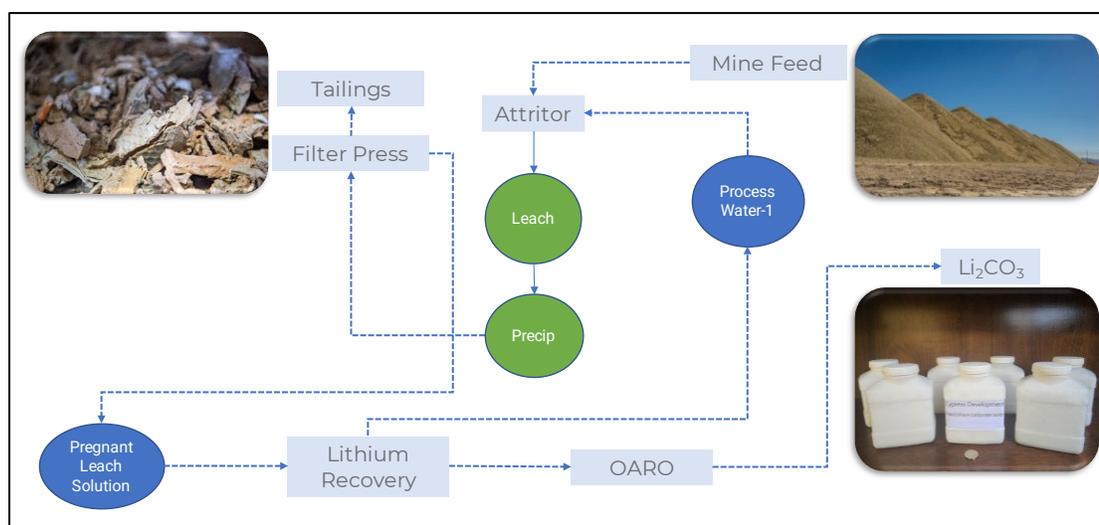
Construction of the pilot plant was completed in late 2021. Since the 2024 FS completion, there have been 18 additional operating runs. During each run, the pilot plant operated continuously for 24 hours per day, typically over a seven-day period. There are typically six or seven days between runs for downtime, maintenance, and plant changes. The pilot plant is operated with a crew of one operator and one helper on shift, and a supervisor and one technician in the assay laboratory on day shift. All solution samples collected during operations are analyzed by inductively coupled plasma (ICP) in the on-site assay laboratory. Solid residues and duplicate solution samples are sent to ALS USA for further analysis. Key reagents used in the operation are industrial grade hydrochloric acid and sodium hydroxide, both in dilute liquid form, in 900- to 1,000-liter (L) totes, and agricultural grade sodium chloride as solid salt in 22.7-kilogram (kg) bags.

The Pilot Plant continued to obtain lithium-bearing claystone from bulk samples collected at the Project. The material was obtained from a surface excavation taken in claystone zone 1, mostly from the top of the claystone deposit, but similar in deposition to the entire deposit.

Calcium content in the surface material is higher than in deeper material in the deposit, likely due to the effects of surface weathering. Bench tests on cores from deeper in the deposit show similar if not better characteristics in leaching to the bulk sample. The material was excavated and hauled to Century's Tonopah Airport facility, where it was crushed and screened and placed in one-tonne super sacks for transport to the pilot plant. Samples were collected from each super sack and sent to ALS USA for sample preparation. The head samples were then assayed for lithium and multi-element geochemistry at ALS USA.

The average lithium grade for the continued pilot plant testing was 930 ppm lithium.

The current flowsheet at the Pilot Plant is illustrated in Figure 13-1.



**Figure 13-1: Current Pilot Plant Flowsheet (Century 2025)**

The key pilot test work results are summarized in the following subsections.

Table 13-1 Identifies key operating conditions of the Pilot Plant:

**Table 13-1: Key Pilot Plant Operational Conditions**

Condition	Unit	Value
Feed rate	kg/min	0.6
Process water addition at attrition scrubber	mL/min	1,700
Process water pH at attrition scrubber	pH	11.5
Leach tank temperature	°C	70
Residence time	Hour	4
Slurry density	% solids by weight	30%
Hydrochloric acid addition rate	mL/min	240
Hydrochloric acid concentration	%	28%
Precipitation Circuit	pH	7.5

Condition	Unit	Value
NaOH addition rate to Precipitation (30% NaOH)	ml/min	175
Filter Press density	% solids by weight	8.0
DLE Circuit	pH	6.5
Calcium Magnesium Precipitation (30% NaOH)	pH	12.5

The following are optimal results based on Pilot Testing.:

### 13.2.1 Comminution Results

Limited comminution is required on the mine run claystone. The material readily breaks down into its core components with wet agitation. The following comminution parameters were developed:

- The run-of-mine (ROM) ore is a clean claystone that will be crushed with a roll crusher to minus 4".
- Crushed claystone material was slurried in a wet attrition scrubber. The product after scrubbing had an average particle size between 5 and 10-microns.
- All samples tested were categorized as very soft, easily breaking down during scrubbing.
- No additional comminution of any kind was required.
- The ROM material was somewhat dusty and will require dust collection.

### 13.2.2 Leaching Results

Leaching commenced in the attrition scrubber (patent pending) and was completed in the agitated leach tanks.

Recycled high pH solution from calcium and magnesium precipitation is added to the attrition scrubber as make-up water for attritioning. Attritioning in the high pH solution is similar (if not equivalent) to caustic cracking, in which the process starts to break down the illite clay particles. The high pH is only maintained in the attrition scrubber and is gravity discharged into the first leach tank.

Acid leaching of lithium with hydrochloric acid is continued in closed top overflow tanks for approximately four hours.

The following leach conditions were identified as optimum:

- Particle size of 5 to 10  $\mu\text{m}$  (nominal leach size of 75% minus 10 mesh)
- Leach pulp density of 25% to 30% solids (w/w). Material becomes pseudoplastic at 35% solids.
- Intense agitation is required for good mixing and particle interaction.
- A four-hour leach residence time.
- A leach temperature of 70°C.
- Multiple leach tanks will provide the 4-hour retention) required.

- Very low pH will be required (pH=minus 0.7) in the initial tank. Higher pH in second tank (0.0 to 1.0)

*"The measured solution has a pH of -0.7. While the classical pH scale ranges from 0 to 14, pH is technically defined as the negative logarithm of the hydrogen ion activity ( $pH = -\log_{10}[aH^+]$ ). In very concentrated acidic solutions, such as concentrated hydrochloric acid or natural acidic waters, the hydrogen ion activity can exceed 1 mol/L, resulting in a negative calculated pH. A pH of -0.7 therefore indicates an extremely high acidity, consistent with strongly concentrated acid. This does not violate chemical principles; rather, it reflects the limits of the conventional pH scale in high-acid systems. For practical purposes, it should be interpreted as "very strongly acidic," rather than as a literal extension of the 0-14 scale." A hydrochloric acid addition of 4 to 6% acid (by slurry volume) is added to maintain low pH in the first tank only; acid addition varies slightly depending upon ROM ore acid consumption.*

- The average acid consumption was 95 to 110 kg HCl/t. Acid consumption increased to 150 to 160kg HCl/t in near surface material with higher calcium carbonate content in the ROM ore.
- An internal study identified 40 to 60% of the acid consumption in the pilot testing occurred due to calcium carbonate reactions with hydrochloric acid. Calcium content in the main ore body below approximately 10 meters in depth is found to have up to 40% less calcium and slightly less magnesium.
- Lithium extraction using these test parameters ranged from 83% to 88%
- Projected net recoveries were estimated at 84%.

### 13.2.3 Primary Precipitation

Primary precipitation was developed to significantly remove deleterious metals put into solution during leaching including iron, aluminum, zinc, and other minor metals. Sodium hydroxide and air were added to the final leach product until the pH approached 7.5. Deleterious metals that were solubilized in the leach circuit appear to reprecipitate on the clay particles while leaving the lithium in solution.

The following comments pertain to precipitation of the deleterious metals at pH 7.5.:

- Clay material precipitated at pH 7.5 is readily placeable in the TSF.
- It was determined that the precipitation of elements below pH 7.5 reduced the precipitation of sodium as sodium aluminum chloride. This noted reaction during precipitation is unfavorable because it substantially reduces the sodium content and subsequent ionic activity in the leach solution and sodium for the chlor-alkali process
- Lithium solution grade remains essentially unaffected other than the minor dilution due to the addition of the water mixed with sodium hydroxide.
- The addition of air supports the removal of iron by converting the ferrous iron to ferric iron which readily precipitates.
- Most deleterious metals in solution, besides calcium and magnesium, readily precipitate and do not create downstream contamination issues.

### 13.2.4 Filtration Results

Filtration tests were completed on the chloride leached tailings material for dry stacking the tailings and removing leach solution from the tailings for recovery of lithium. Filtration tests were completed by Pocock Industrial, Diemme, and Matec. Testing parameters developed in off-site testing were then tested on a rental filtration unit internally. All testing identified similar results as follows:

- Plate and frame filtration could effectively remove moisture while leaving a significantly dry product that was conveyable and stackable.
- Water rinsing was impractical as the clay would not allow for rinsing after compaction.
- Air blow was impractical as the clay would not allow air infiltration to remove solution after compaction.
- High pressure squeeze at provided optimal moisture results with retained moisture below 30%.
- Low percent solids (8-10%) loading allowed for optimal filter loading.
- Pulp loading was completed to 8 to 10 bar.
- Loading cycles were short allowing for 20 plus cycles per day including a cleaning cycle.
- Vacuum filtration was unusable due to significant solution left in the clay material for stacking.

### 13.2.5 Direct Lithium Extraction

Direct lithium extraction tests went through several iterations and consist of ultrafiltration at 0.5-micron filtration and DLE. The initial two iterations of DLE were based on different types of resin being used in Koch Technology Systems (KTS) Lipro system. A third iteration was used based on a simulated moving bed system developed by ARi developed in the sugar industry.

Lipro consisted of a lithium recovery unit and a softening system to remove magnesium and calcium. The following are comments about Lipro:

- Lipro consistently provided lithium recovery from leach solutions in the 95% plus range with high alkali earth rejection rates.
- Lithium loadings were consistently between 1 and 2 grams/liter of resin loading.
- Lower loading rates made for a significant increase in capital requirements for process vessels and equipment in actual plant.
- Softening consistently removed alkali earth minerals but added significant sodium back into the system.
- Sodium removal required a secondary extraction system.
- A significant number of recycle loops were required to ensure no loss of lithium to the system.

ARi consisted of a simulated moving bed lithium recovery design. The following are comments about ARi:

- ARi consistently provided lithium recovery from leach solutions in the 95% plus range with

- high sodium and alkali earth rejections rates.
- Lithium loadings were consistently between 5 and 6 grams/liter of resin loading.
  - Loading columns used fractal loading headers and footers to allow for near plug loading, which significantly lowered water usage.
  - No recycle loops were needed to complete all loading and stripping.
  - Rejection rates for sodium, calcium and magnesium are approximately 99.5% or higher. This allows for precipitation instead of softening to remove remaining alkaline earth metals.
  - High lithium loadings significantly lower capital requirements for process equipment.
  - All engineering for the project can be done in-house.

Due to ARI's proven simulated moving bed technology and significantly lowered capital costs, ARI's technology was identified as a path forward for Century.

### **13.2.6 Lithium Carbonate Recovery**

Lithium carbonate recovery consists of standard carbonate precipitation of 10 to 15 gm/l lithium chloride solution.

The lithium chloride eluate from DLE is processed through a 1,000-pound per square inch (psi) reverse osmosis filtration unit to remove water. Solutions typically reach 7 gm/l lithium and 3 gm/l sodium. The permeate is sent to precipitation where oxalic acid and sodium hydroxide are added to precipitate calcium and magnesium. The solution is filtered through ultrafiltration to remove any precipitate. The final solution is processed through a DuPont nanofiltration filter to raise the lithium content to over 10 gm/l lithium. The lithium is precipitated with sodium carbonate to make battery grade lithium carbonate.

The following are comments to the lithium carbonate recovery:

- Final calcium and magnesium precipitation uses oxalic acid which decreases contaminants.
- An ultrafiltration unit is used to remove precipitated oxalates.
- Use of low pressure nanofiltration to increase lithium grade to over 10 gram per liter in chloride solution significantly lowered operating cost over other options.
- After lithium precipitation, sodium in the process advances back to DLE tank for reprocessing.
- A heated Nutsche precipitation unit can be used for making lithium carbonate.
- Standard drying can be used using either a rotary dryer or box dryer at 300 °C
- Lithium carbonate conversion rates approaching 94% allow for minimal recycling.
- Lithium carbonate purity approached 99.95%.

### **13.2.7 Tailings**

All tailings will be dry stacked at 25 to 30% moisture content. Precipitated materials such as calcium and magnesium hydroxide will be mixed with the tailings slurry, filtered, and dry

stacked. The material is dry to the touch and does not liquify, maintaining its shape and an angle of repose when stacked.

### **13.3 Chlor-Alkali (CA)**

Chlor-alkali (CA) is a well-known and understood electrorefining process that is used throughout the world. The CA process effectively splits the sodium chloride ion into chlorine gas, hydrogen gas, and sodium hydroxide. The chlorine gas and hydrogen gas are burnt in a burner to make hydrochloric acid, and the sodium hydroxide exits the electrolyzers as 35% sodium hydroxide.

The CA system is integral as it allows for the recycle of chlorides as hydrochloric acid and sodium as sodium hydroxide. The hydrochloric acid is required for leaching, and the sodium hydroxide is required for precipitation and pH control. CA takes the brine waste, allowing for the recycle of chlorine and sodium back to the leach plant, thereby minimizing the outside purchase and use of water and major chemicals.

#### **13.3.1 Chlor-Alkali Feed**

Chlor-alkali feed is expected to come from two sources: fresh salt and recycled raffinate from the plant.

The plant raffinate discharge will have a salt content at approximately 150,000 ppm or 15% salt. CA requires 29% salt to be efficient. Sodium chloride will be added to the raffinate to bring the salt content to appropriate levels.

The CA feed will also have all deleterious elements removed. Initially, calcium and magnesium will be coarsely precipitated at the process plant using sodium hydroxide, allowing for over 99% of the calcium and magnesium to be removed. Upon the raffinate reaching the CA plant, the raffinate will undergo further precipitation with sodium bisulfite, sodium carbonate, magnesium chloride, and iron chloride to bring the calcium and magnesium to part per billion levels. The solution will be filtered to meet the final feed requirements for the CA plant. The weak salt brine discharge from the CA plant will be returned to the main process plant for reuse.

#### **13.3.2 Chlor-Alkali Plant**

CA testing was initially reviewed by Thiessen Krupp (TK). Continued review has identified INEOS as developing new cells that consume power at 1,962 kWhr/tn Cl produced. The initial system will be designed for 450 t/d of chlorine. A small hydrolyzer for hydrogen will also be required and was included in the facilities due to insufficient hydrogen to meet hydrochloric acid production being made in the CA plant.

Approximately 490 t/d of sodium hydroxide will be produced in addition to the 450 t/d of chlorine gas. The chlorine gas will be burnt with hydrogen and mixed with water to make 37%

hydrochloric acid. Sodium hydroxide will be produced at a concentration of 35%, with additional evaporation to obtain a concentration of 50% NaOH.

### **13.3.3 Precipitate**

Any and all precipitates created in brine purification will be mixed with the final slurry for filtration and dry stacking in the TSF.

## **13.4 Overall Lithium Recovery**

A substantial amount of leaching test work, including pilot plant operations, indicated that lithium extraction averaged 84% in four hours for all the tests regardless of composite type, leach density, feed grind size, and head grade variation.

Leaching required hydrochloric acid levels to ensure the free acid component maintained a pH of -0.7 pH units or lower (for a discussion on negative pH units see Section 13.2.2 ). Once the acid reached the appropriate leach levels at 70°C, most other variations of leach were insignificant to the overall recovery.

There were no outside losses of lithium other than lithium solution entrainment in the tails. All recycle loops were recycled and reprocessed to ensure no outside losses.

## **13.5 QP Comments on Section 13**

The QP finds the testing, analytical procedures, and security measures employed by Century, its pilot plant operators, and its consultants to be reasonable and adequate for the interpretation of metallurgical data presented in this Report. The data in this section has been used to establish the process design criteria presented in Section 17.

Key findings of the test work and pilot plant program are as follows:

- Feed material to the pilot plant was prepared from surface bulk samples collected at the Project site
- Feed material averages 930 ppm lithium, which is slightly lower than the average feed grades anticipated for the Project when in production
- Lithium extractions at the pilot plant have ranged from 80 to 95% and have consistently averaged 88% in recent runs
- Feed solutions to the DLE area from leaching have varied from 200 to 320 ppm Li, typically averaging between 280 and 320 ppm Li
- Recoveries of lithium in the DLE area are typically above 95%
- Unrecovered lithium in the depleted solutions from the DLE area are recycled back to leach following the precipitation and removal of calcium and magnesium.
- Small losses of lithium are expected in the moisture retained by the tailings.
- Allowing for the loss of lithium to the tailings, an overall recovery of 84% is determined for

the Project.

Test work and piloting have demonstrated that lithium carbonate can consistently be produced on site employing a combination of hydroxide leach, chloride leach and DLE processes. Final product from pilot testing resulted in lithium carbonate exceeding 99.9% purity, meeting the generally accepted purity levels for battery quality lithium carbonate.

Operation of the pilot plant has been ongoing for 3.5 years. Data generated during this period indicate that the developed process flowsheet is viable. Continued test work is recommended to:

- Generate additional supporting data, particularly for the DLE process
- Complete testing on additional, deeper mineral resources within the Project area
- Evaluate potential process improvements that could reduce costs or enhance operational efficiency.

## **14.0 MINERAL RESOURCE ESTIMATE**

This section is unchanged from the 2024 NI-43-101 Feasibility Study.

### **14.1 Summary**

The Mineral Resource estimate reported for the FS was completed under the direction of QP Lane, Principal of GRE.

This section describes the resource estimation methodology and summarizes the key assumptions. The Mineral Resources were estimated using the 2019 CIM Best Practice Guidelines and reported using the 2014 CIM Definition Standards.

Geologic and resource modeling and resource estimation was done with Seequent Leapfrog® software and incorporates information gained from additional drilling completed since the release of the PFS.

### **14.2 Geologic Model**

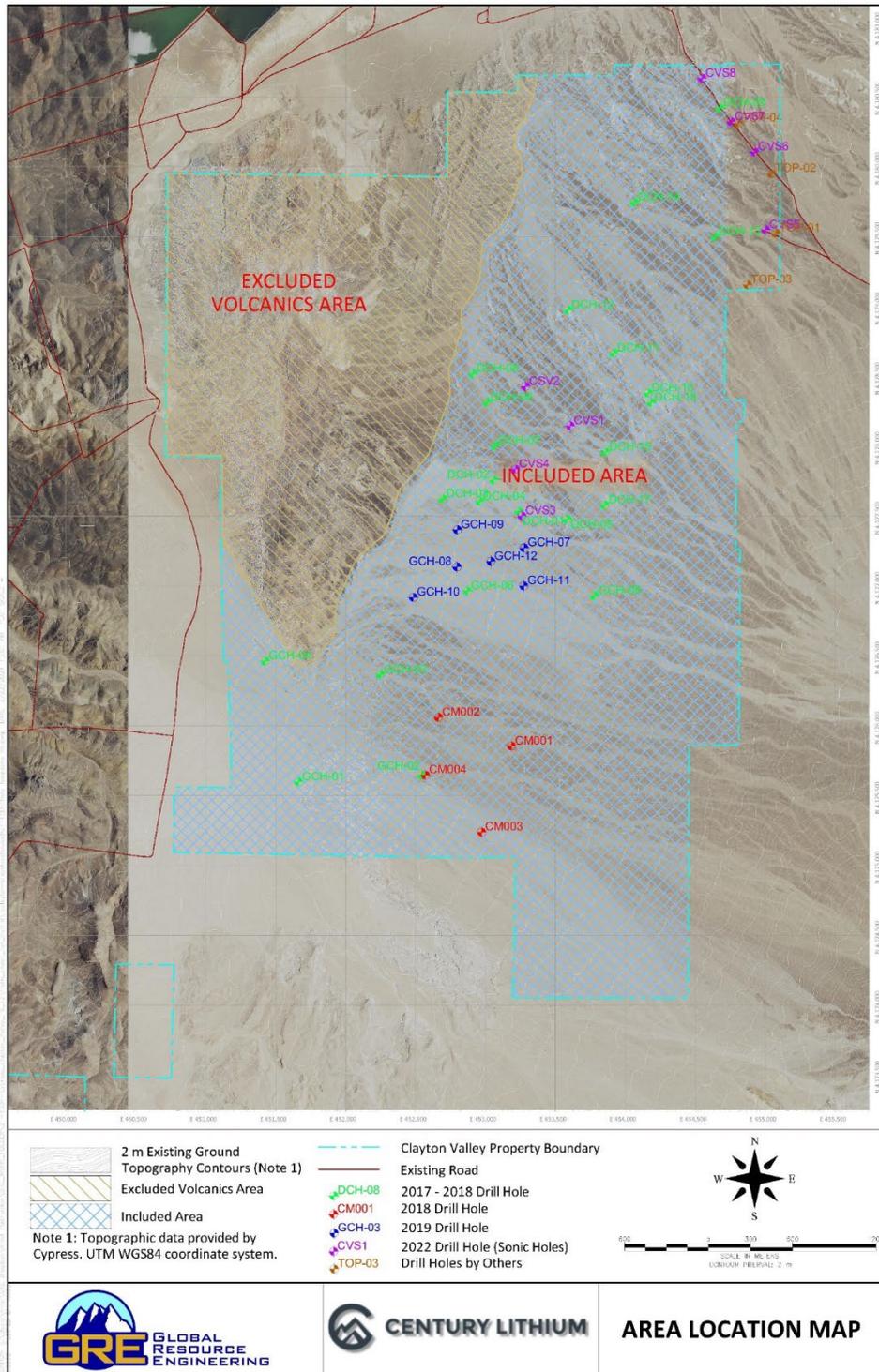
The three dimensional (3D) geologic model is limited to Property shown in Figure 14-1. The geological model showing the lithological units is shown in Figure 14-2.

The Mineral Resource estimate includes all sedimentary units located in the eastern and southern part of the Property. There is no drilling or known lithium mineralization in the volcanic units that make up Angel Island, so this area is excluded from the Mineral Resource estimate.

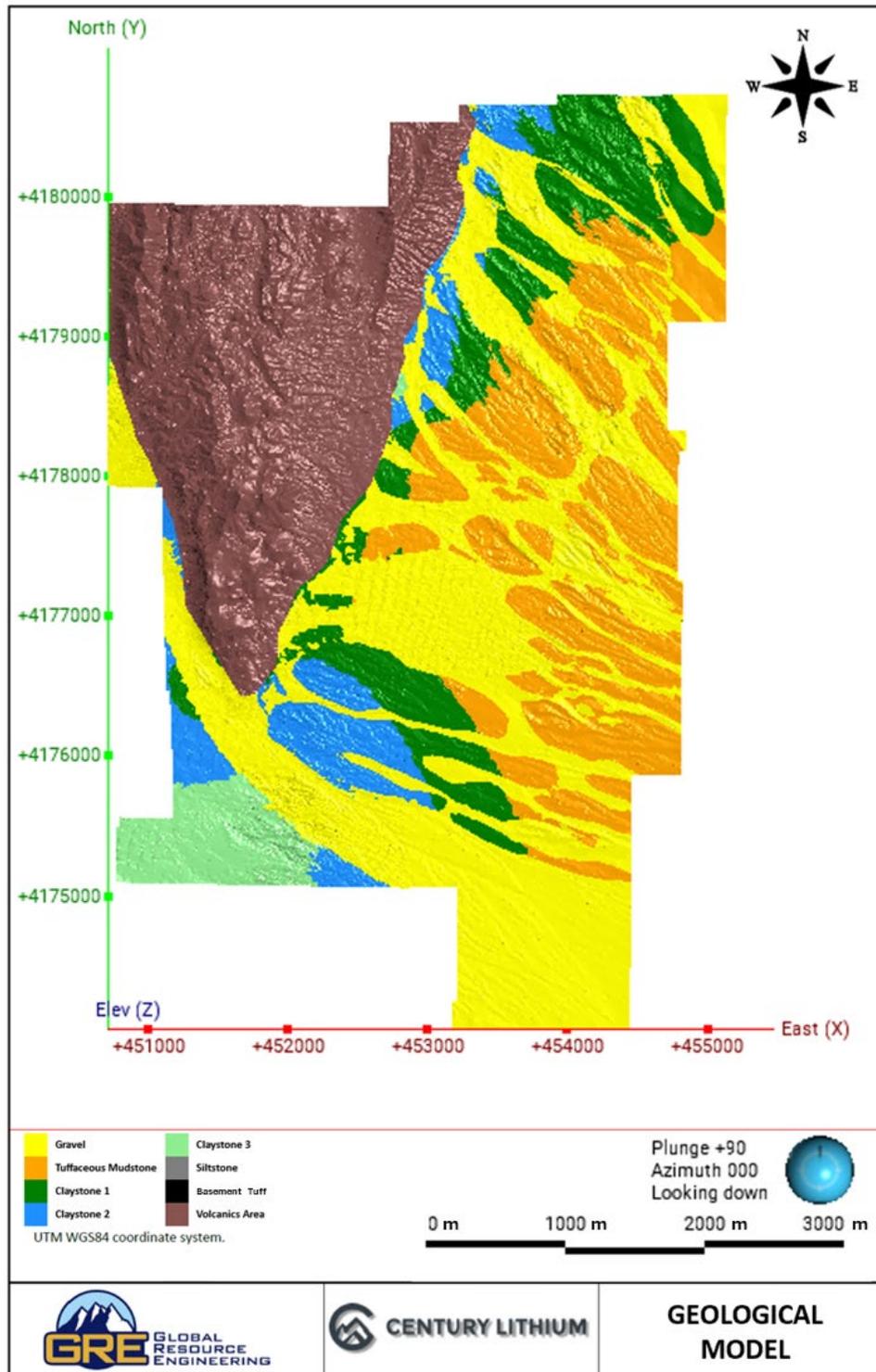
### **14.3 Data Used for the Lithium Estimation**

#### **14.3.1 Drill Holes**

The Mineral Resource estimate incorporates geologic and assay results from drilling of 45 drill holes on the Property. QP Samari compiled and verified data for all drill holes, collar coordinates, drill hole direction (azimuth and dip), lithology, sampling, and assay data. All drill holes are vertical and limited to the sedimentary rock units.



**Figure 14-1: Area Included in the Geologic Model and Mineral Resource Estimation (Source: GRE, 2022)**



**Figure 14-2: Geological Model Showing the Stratigraphical Units (Source: GRE, 2022)**

### 14.3.2 Assay Data

The assay data included hole ID, sample weight, lithium in ppm, rock code, lithology code, and lithology description. The data set included 1,318 lithium assay values in ppm.

### 14.3.3 Density

For resource modelling, a density of 1.505 g/cm<sup>3</sup> is used for all lithological units. Within the tuffaceous mudstone and claystone zones that comprise most of the Mineral Resource, samples of drill core were collected for specific gravity measurements. The samples were selected from GCH-9 (Figure 14-3), CM001, and CM003 and assessed using the bulk density–paraffin coat method (OA-GRA09A) at ALS USA. (Table 14-1). The results ranged from 1.19 to 1.72 g/cm<sup>3</sup> with a mean of 1.505 g/cm<sup>3</sup>. Additional lithology-specific testing is recommended for future study.



**Figure 14-3: Core from GCH-09 Showing Density Sample (Source: GRE, 2022)**

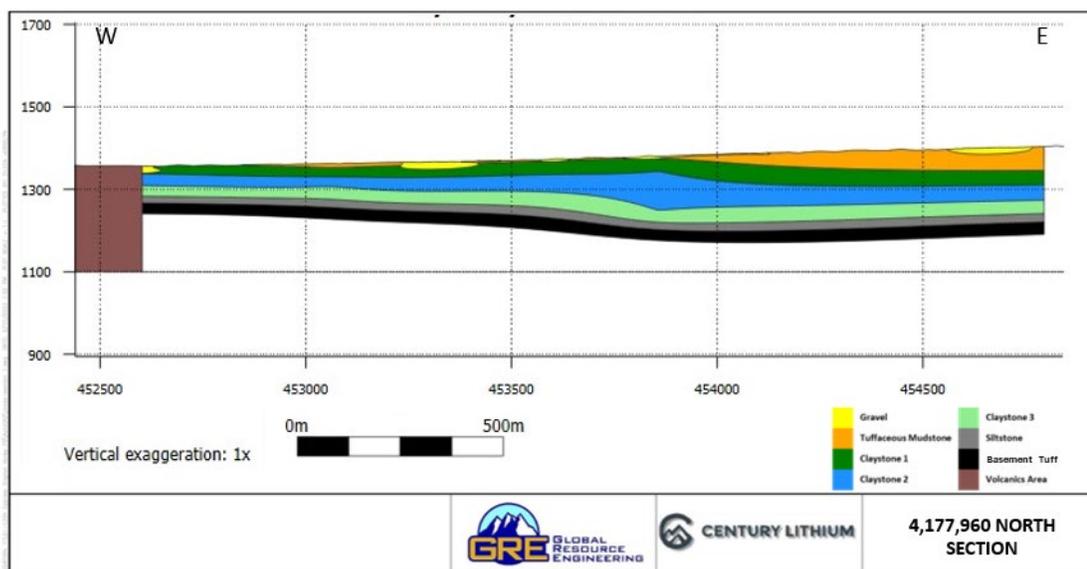
**Table 14-1: Density Data**

Drill Hole	Sample Number	Weight (kg)	Bulk Density (g/cm <sup>3</sup> )	Top (m)	Bottom (m)	Lithological Unit
CM001	504254	0.63	1.57	9.9	10.1	TM
CM001	504255	0.47	1.21	27.9	27.7	CS1
CM001	504256	0.69	1.57	38.6	38.7	CS2
CM001	504257	0.6	1.64	58.4	58.5	CS2
CM001	504258	0.65	1.4	71.0	71.2	CS3
CM003	504260	0.64	1.33	13.1	13.3	TM
CM003	504261	0.64	1.55	20.7	20.9	CS1
CM003	504262	0.7	1.52	31.7	31.9	CS1
CM003	504263	0.67	1.47	42.4	42.5	CS1
CM003	504266	0.51	1.19	71.9	72.1	CS3
CM003	504267	0.79	1.62	78.9	79.1	CS3
GCH-9	512005	0.54	1.53	9.8	9.9	CS1
GCH-9	512006	0.56	1.69	22.9	23.0	CS1
GCH-9	512007	0.48	1.47	43.6	43.7	CS2
GCH-9	512008	0.58	1.72	62.8	62.9	CS3
GCH-9	512009	0.58	1.65	78.2	78.3	CS3
GCH-9	512010	0.54	1.46	98.9	99.1	CS3
MEAN			1.505			

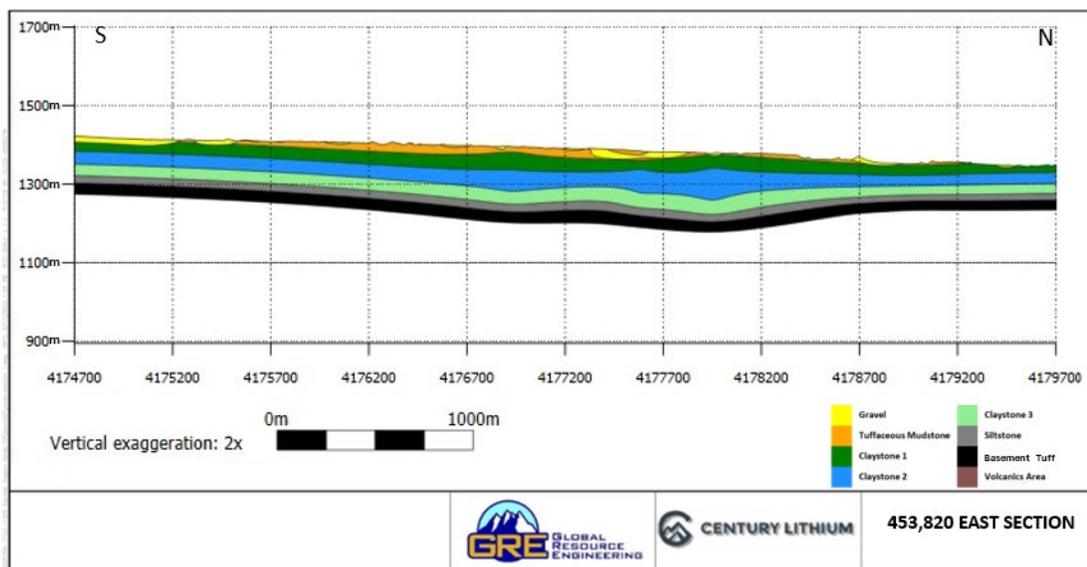
Notes: TM-tuffaceous mudstone, CS1-claystone zone 1, CS2-claystone zone 2, CS3-claystone zone 3

## 14.4 Domains

Within Leapfrog®, the gravel (alluvium) lithological unit and waste were excluded from the resource estimation. The volcanics area was also excluded from resource estimation. The tuffaceous mudstone and siltstone lithological units were identified as separate domains during resource estimation. The three claystone zones were combined into a single domain to perform the resource estimation. Figure 14-4 and Figure 14-5 shows the lithological units used for creating estimation domains in the north (4,177,960) section and east (453,820) section, respectively.



**Figure 14-4: North Section (4,177,960) showing the Lithological Units (Source: GRE, 2022)**



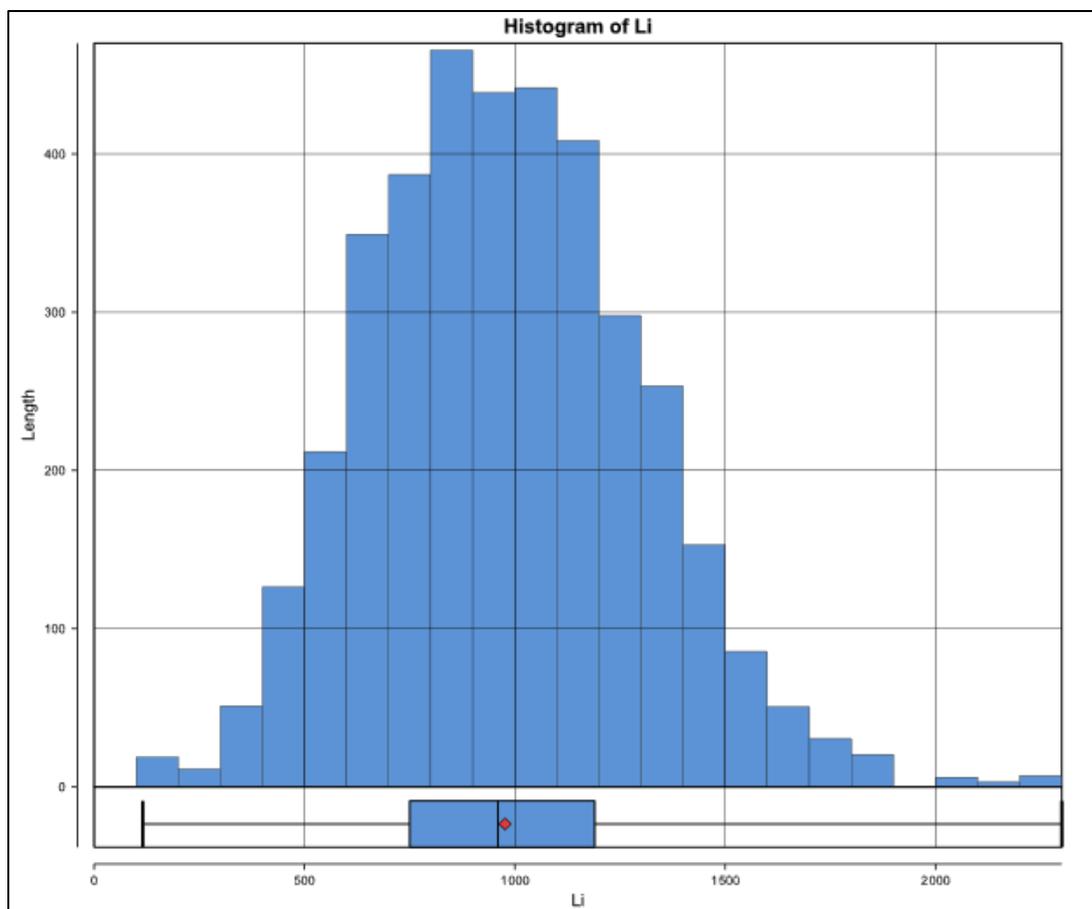
**Figure 14-5: East Section (453,820) showing the Lithological Units (Source: GRE, 2022)**

## 14.5 High Grade Capping

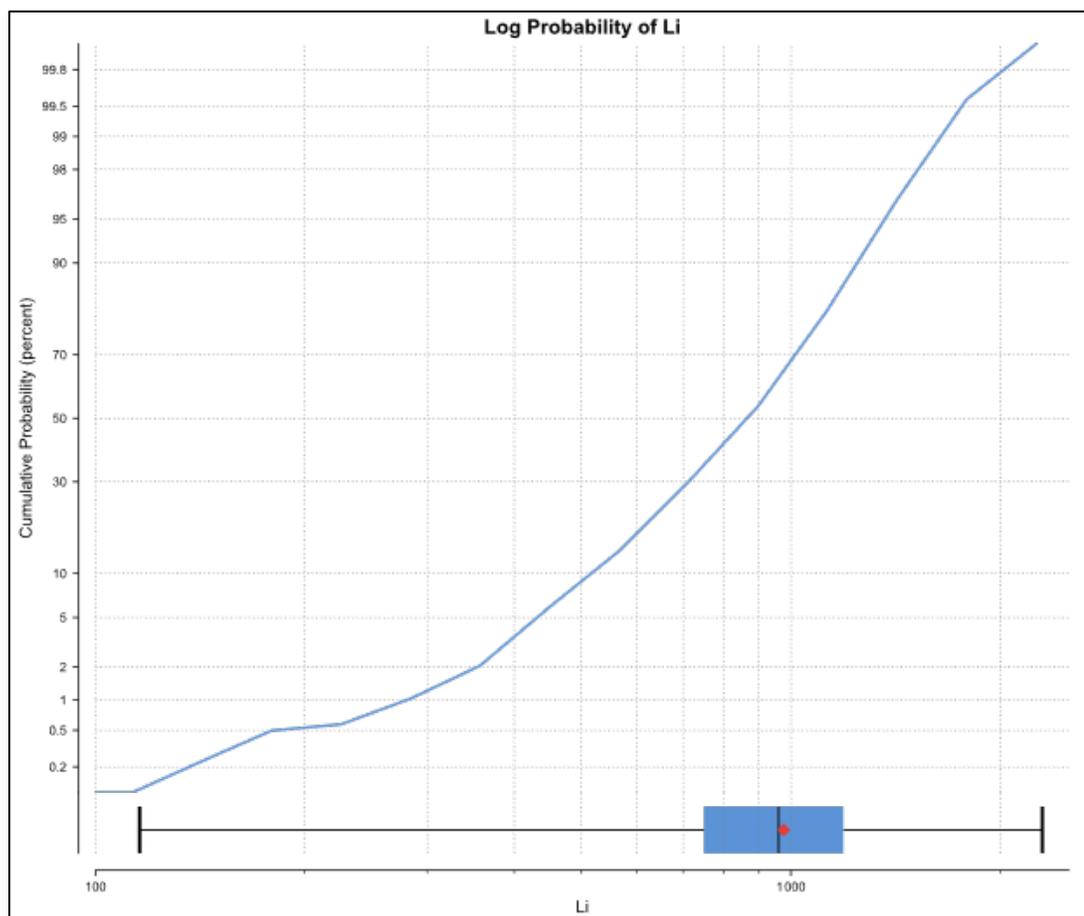
Histograms and cumulative frequency plots of the assay data were generated. If the cumulative frequency plots form a relatively straight line without a grade break, and the histograms show a nearly normal distribution, capping is not needed.

The assay data contains a total of 1,318 lithium assays, ranging from 115.7 ppm to 2,300 ppm. A histogram of the Project’s assay data is shown in Figure 14-6.

A cumulative frequency plot (CFP) of the assay data is shown in Figure 14-7. The CFP indicates a log normal distribution with very few outliers. Six assay values over 2,000 ppm occur in the data. The data approximates a straight line, which is consistent with a nearly normal distribution and one population. Therefore, QP Lane concluded that no grade capping was needed.



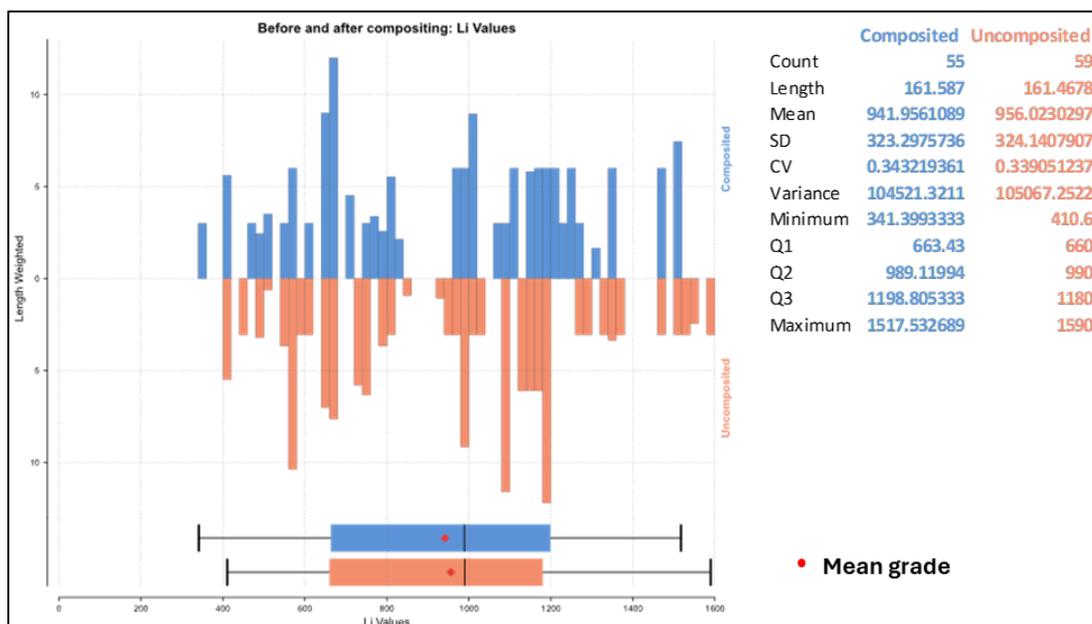
**Figure 14-6: Lithium Assay Data Histogram (Source: GRE, 2022)**



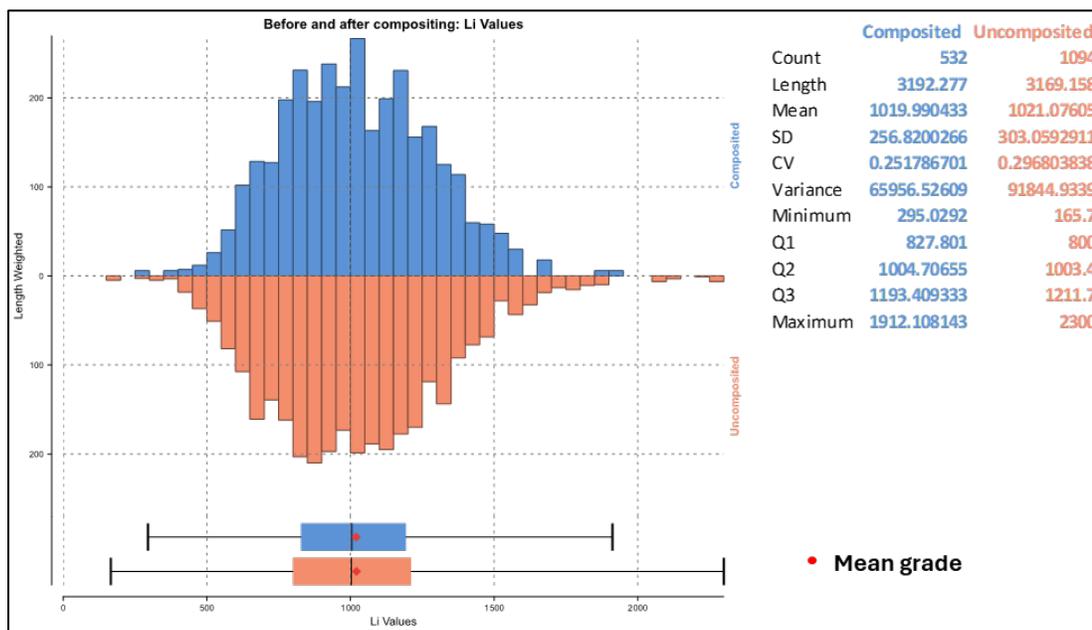
**Figure 14-7: Cumulative Frequency Plot of Lithium Assay Data (Source GRE, 2022)**

### 14.5.1 Assay Compositing

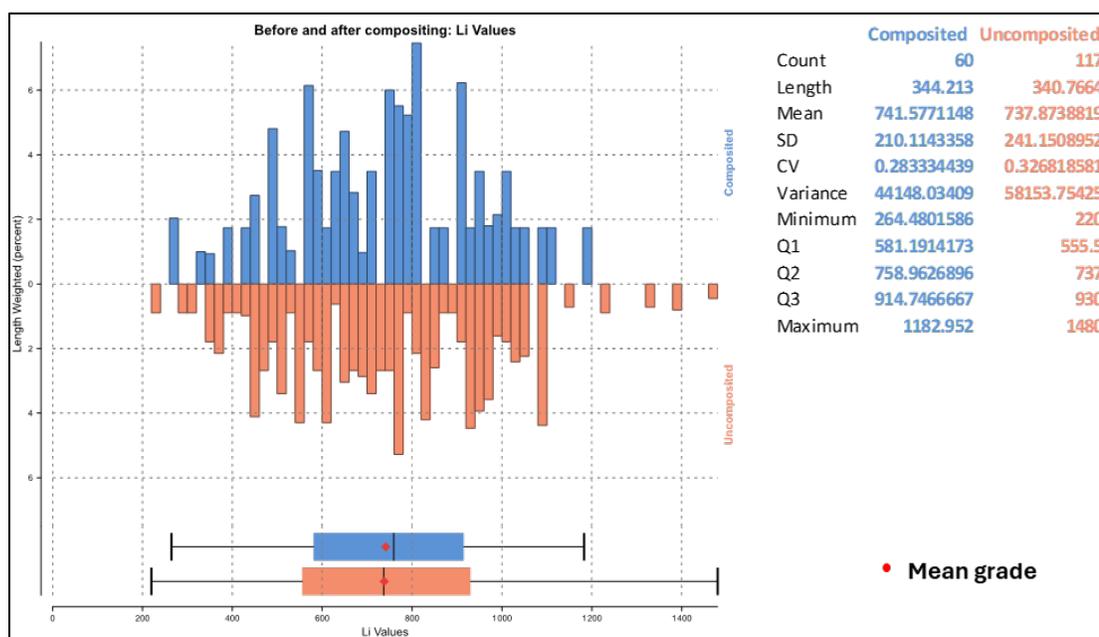
The Project’s assaying was done almost exclusively using 1.52-m or 3.05-m long (or 5- or 10-foot long) sample intervals. Drill holes were composited to 6 m intervals within each domain. The 6-m composite length was selected based on the anticipated bench height in mining. Comparisons of the assay data and composited data by domain are shown in Figure 14-8 through Figure 14-10. The comparisons show that compositing does not change the mean or quartiles significantly but reduces the standard deviation and maximum value of grades, which indicates that the compositing is appropriate.



**Figure 14-8: Tuffaceous Mudstone Comparison of Assay and Composited Data (Source: GRE, 2022)**



**Figure 14-9: Claystone Comparison of Assay and Composited Data (Source: GRE, 2022)**



**Figure 14-10: Siltstone Comparison of Assay and Composited Data (Source: GRE, 2022)**

## 14.6 Estimation Methodology

The Project's lithium claystone deposit is laterally continuous in stratigraphy and lithium grades. Within the deposit, displacements due to faulting, if present, appear minor. Relatively low variability of lithium grades is also apparent within each of the beds. All drill holes intersected the mineralized beds. The southern portion of the Property appears to be in an uplifted fault block. No drill holes passed through the lowest (siltstone) unit; all drill holes ended with lithium values above 400 ppm, except for GCH-04 which ended in Angel Island rocks.

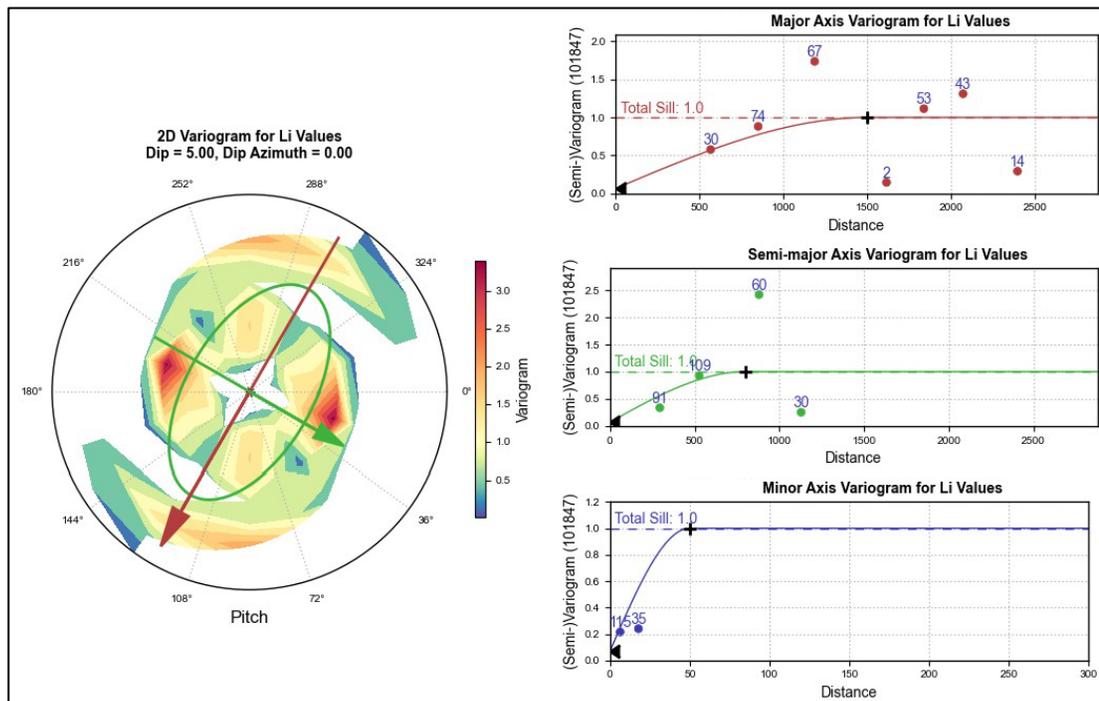
### 14.6.1 Variography

Pairwise variograms from the composite values using Leapfrog® Edge software were generated and modeled. The analysis was used to determine the size and orientation of the search ellipsoid for an inverse distance squared (ID<sup>2</sup>) grade estimate. Each domain was analyzed to determine the orientation and relative length of the search ellipsoid axes, nugget, and sill. Based on the results of the variography, the search parameters used in the grade estimation are as shown on Table 14-2.

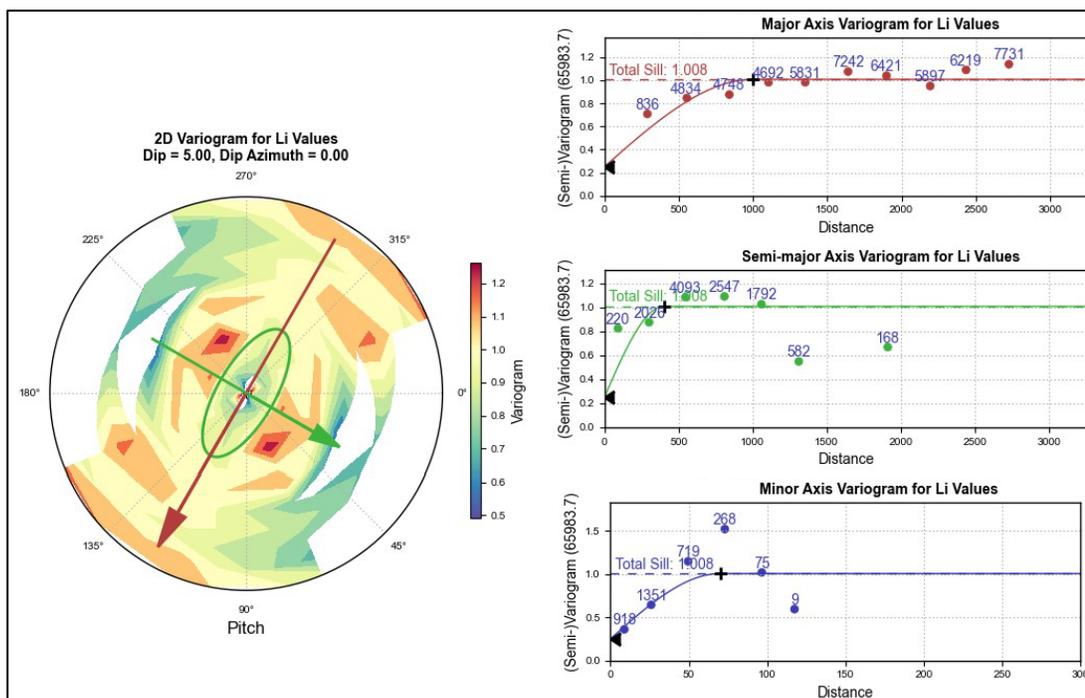
Figure 14-11 through Figure 14-13 show the variograms and radial graphs for each domain. The major axis was determined to be at an azimuth of 120° for all domains.

**Table 14-2: Variography Results by Domain**

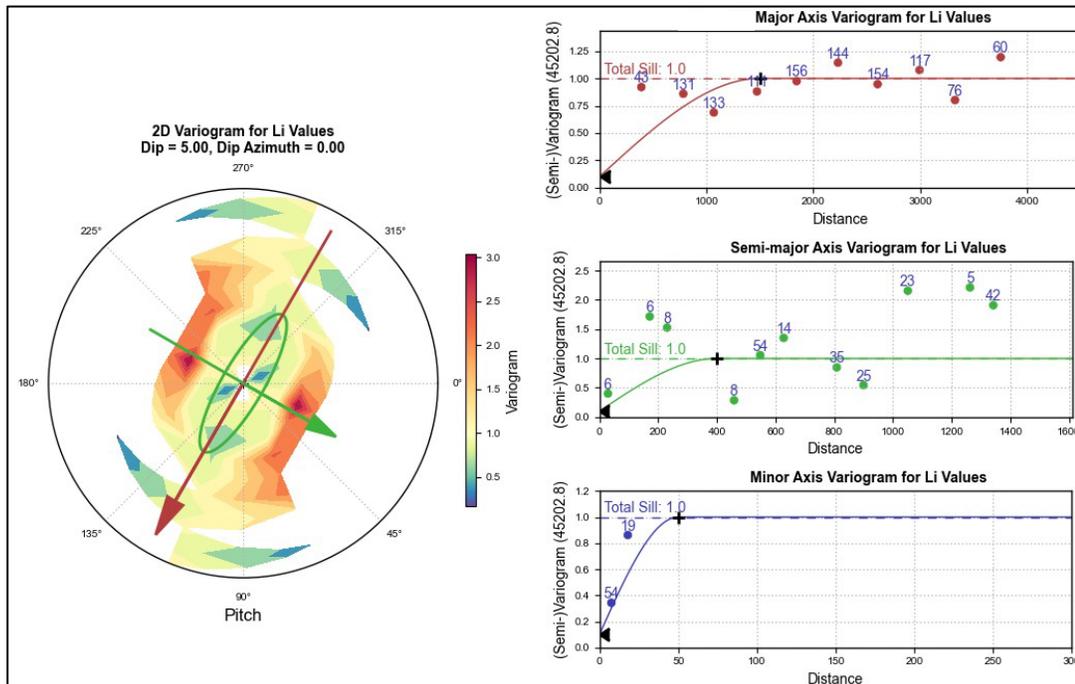
Domain	Nugget	Sill	Orientation	Dip	Major Axis Range (m)	Semi-Major Axis Range (m)	Minor Axis Range (m)
Tuffaceous Mudstone	0.6888	1.000	120°	5°	1,500	800	50
Claystone	0.2525	1.008	120°	5°	1,000	400	70
Siltstone	0.1023	1.000	120°	5°	1,500	400	50



**Figure 14-11: Tuffaceous Mudstone Variograms (Source: GRE, 2022)**



**Figure 14-12: Claystone Variograms (Source: GRE, 2022)**



**Figure 14-13: Siltstone Variograms (Source: GRE, 2022)**

### 14.6.2 Block Model Parameters

A 3D block model was developed to represent the deposit using a block size of 50 m x 50 m x 5 m. The block model dimensions and model limits are shown in Table 14-3. The coordinate system used for the 3D modeling was UTM WGS 84. The block model is not rotated and contains no sub-blocking.

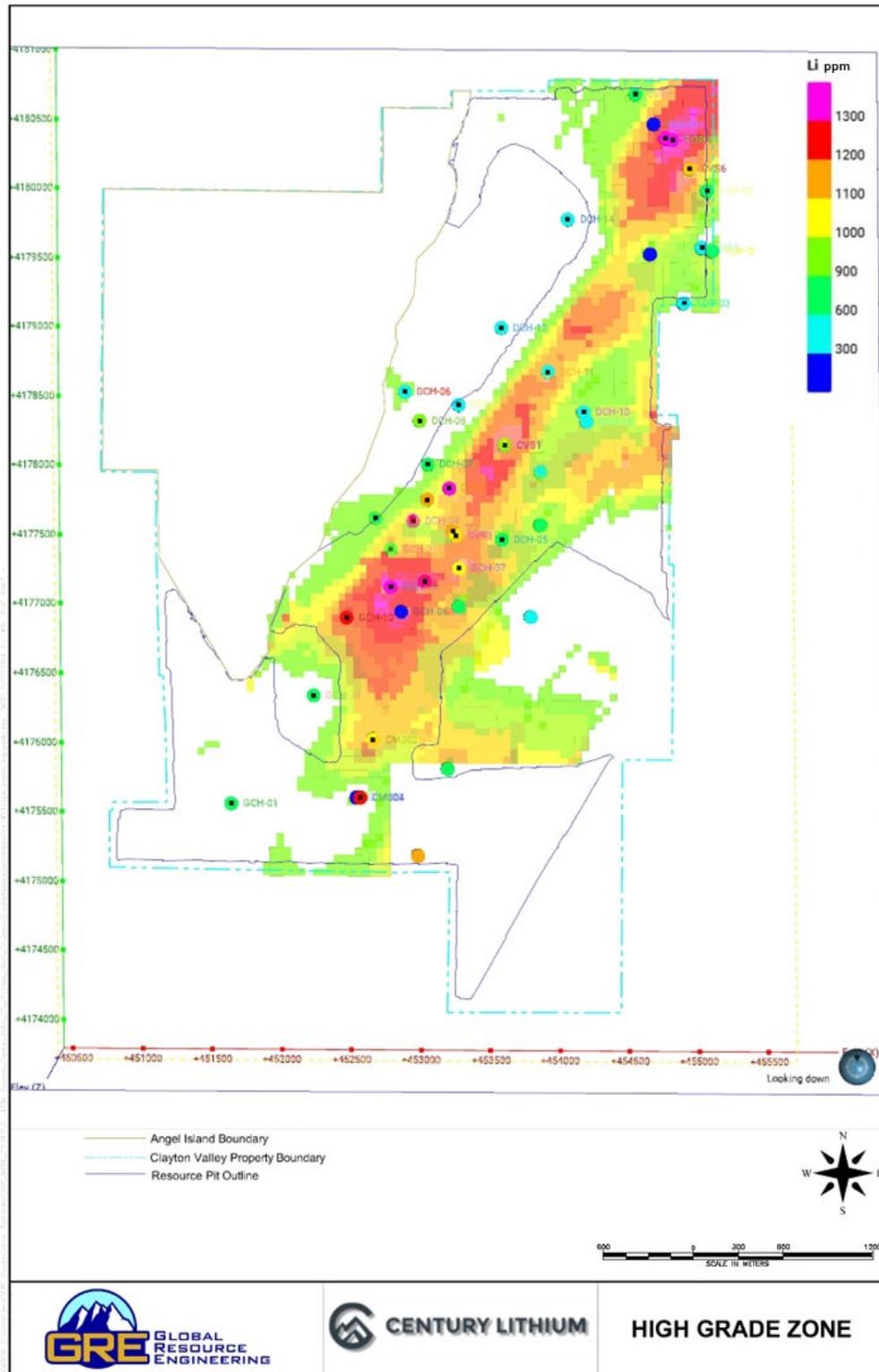
**Table 14-3: Block Model Parameters**

	Minimum	Maximum	Size	Number	Range
Easting	450,430	455,630	50	104	5,200
Northing	4,173,790	4,181,140	50	147	7,350
Elevation	1,145	1,700	5	111	555
Rotation			0	Degrees down axis	
Block Volume			12,500		

### 14.6.3 Grade Modeling and Resource Categories

All drill holes in the Century claim block have encountered economically significant (>400 ppm) mineralization over nearly the entire length of the hole. A higher-grade zone outcrops near GCH-10 and trends about 30 degrees to the northeast with a five-degree dip to the northeast.

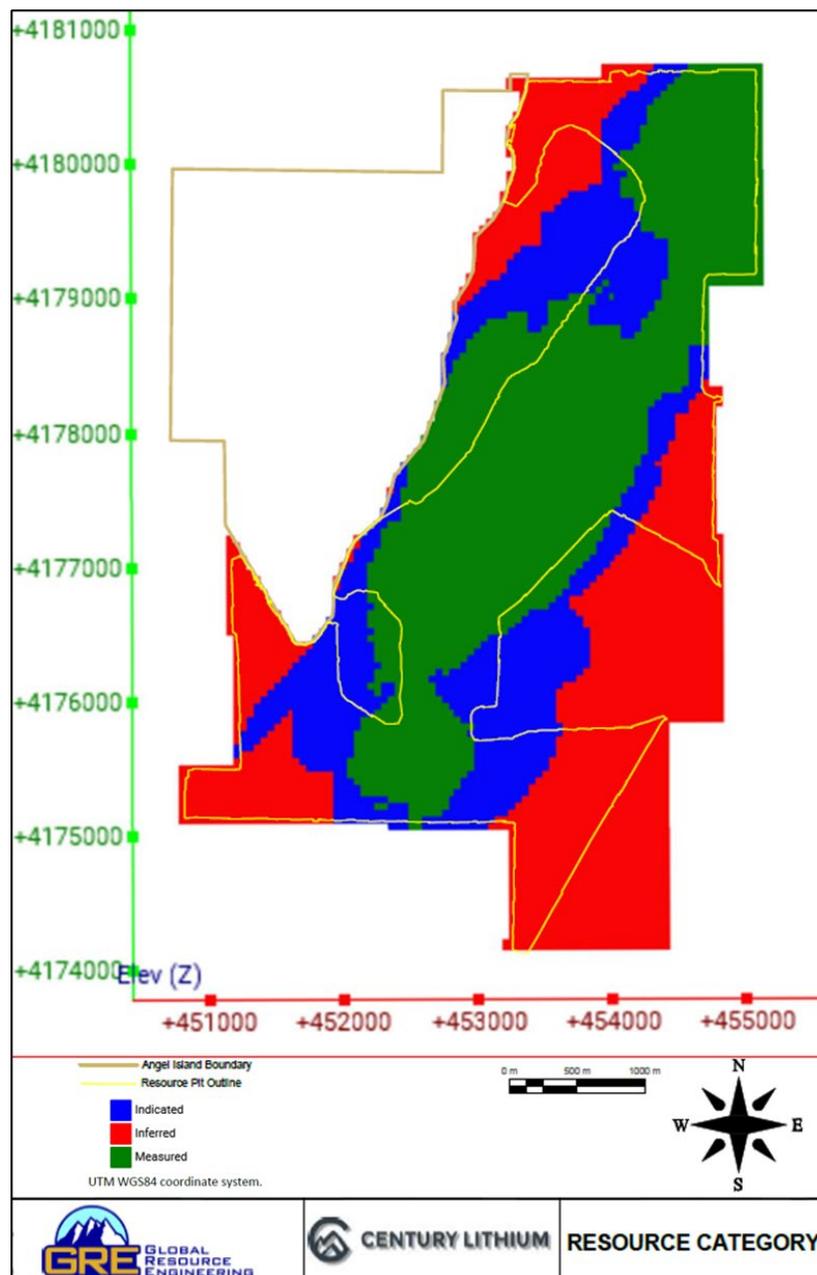
Lithium grade was estimated using an ID<sup>2</sup> algorithm and the search ellipse detailed in Table 14-2. The estimation is carried out in two passes. In the first pass, the estimation uses a minimum of two composites and a maximum of 20 composites within the variogram ranges. In the second pass, the estimation uses a minimum of one composite and a maximum of 20 composites and uses double the variogram ranges. Figure 14-14 is a plan view of a 50-m thick slice showing the higher-grade zone.



**Figure 14-14: Plan View of High-Grade Zone (Source: GRE, 2022)**

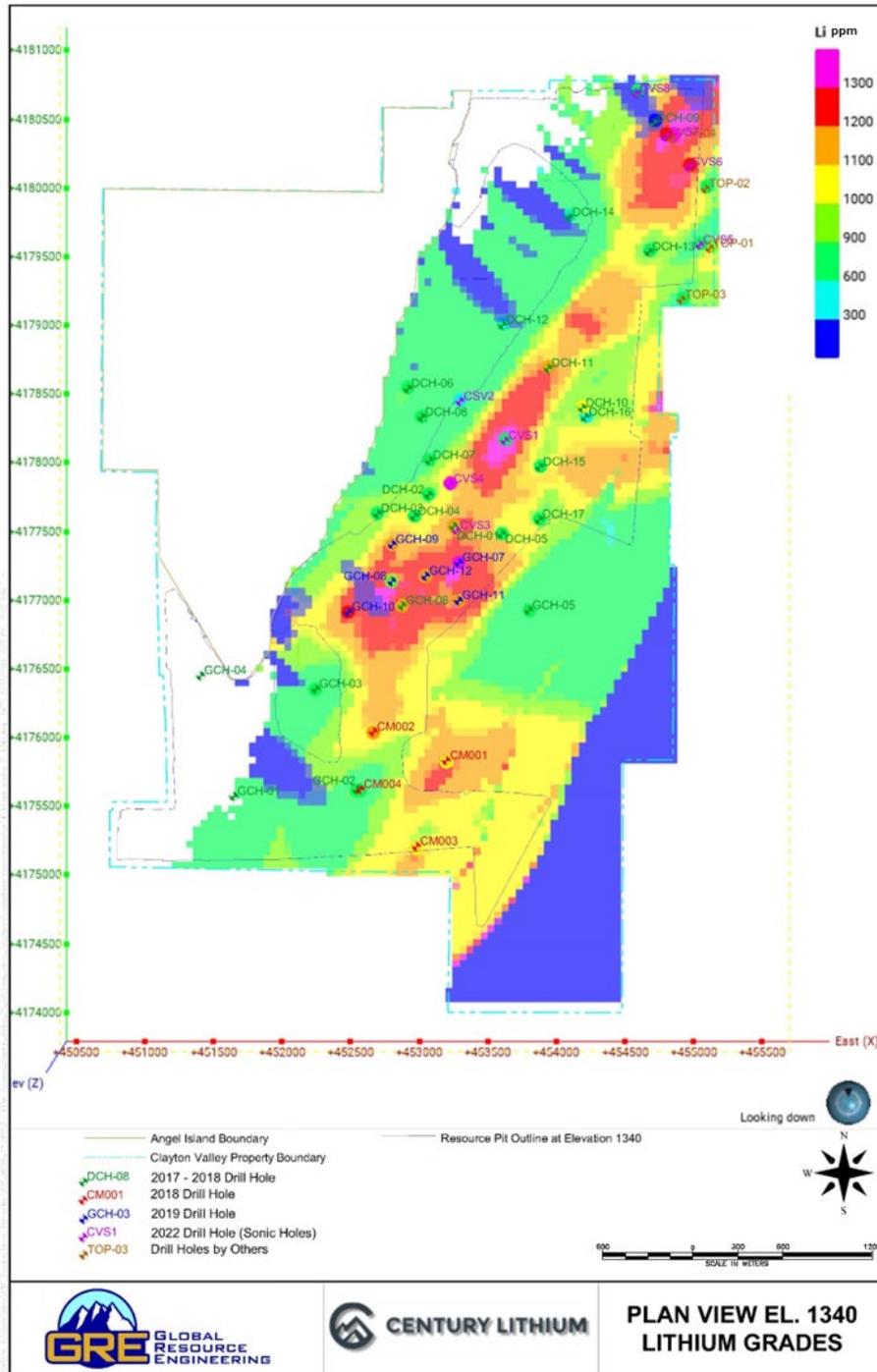
Resources were classified as Measured if the estimation resulted from a minimum of three drill holes within the variogram range, as Indicated if the estimation resulted from a minimum of two drill holes within the variogram range, and as Inferred for the remaining estimations.

A plan view showing the Mineral Resource confidence classification categories is provided in Figure 14-15.

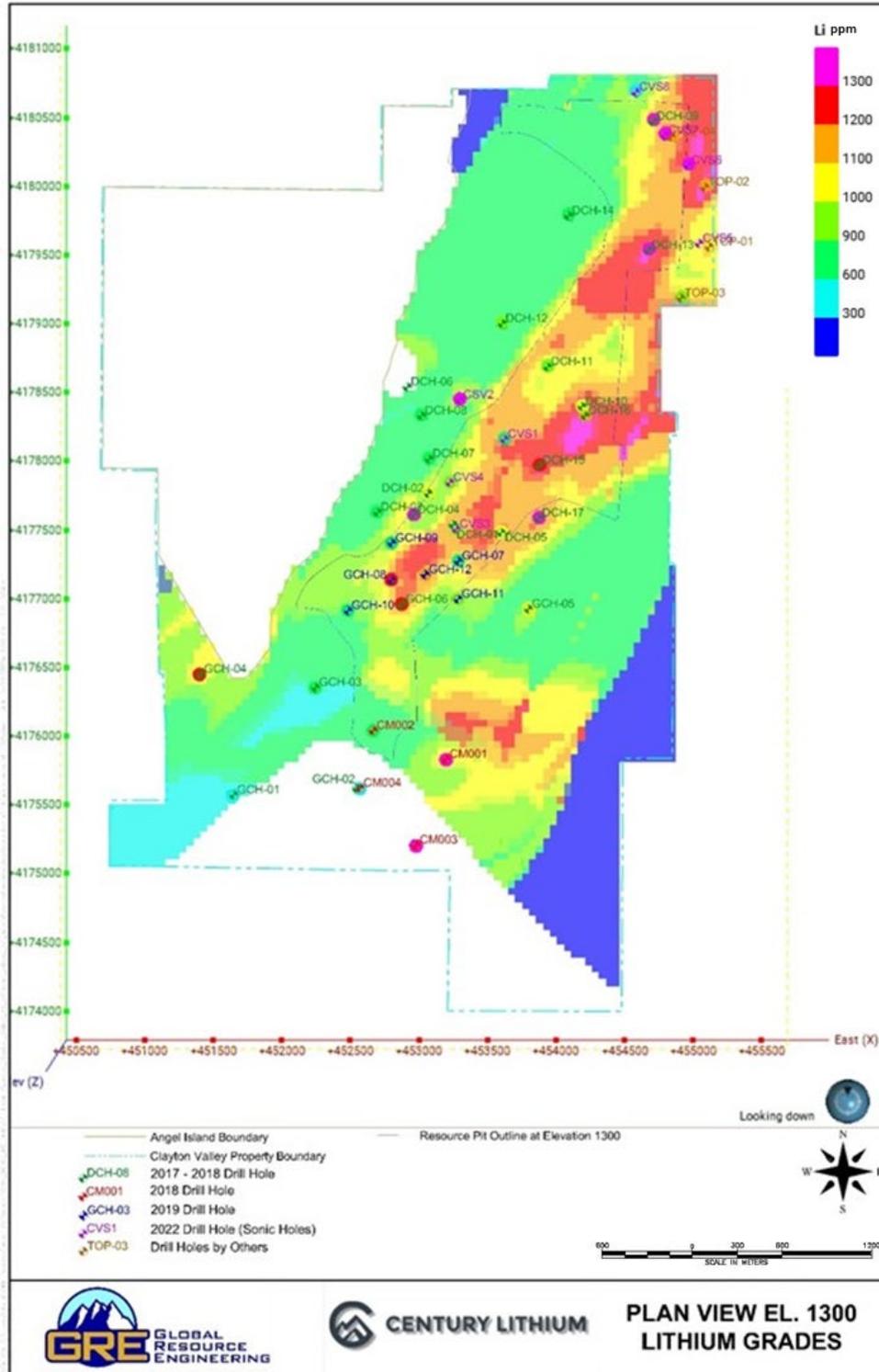


**Figure 14-15: Plan View of Mineral Resource Confidence Classification Category Ranges (Source: GRE, 2022)**

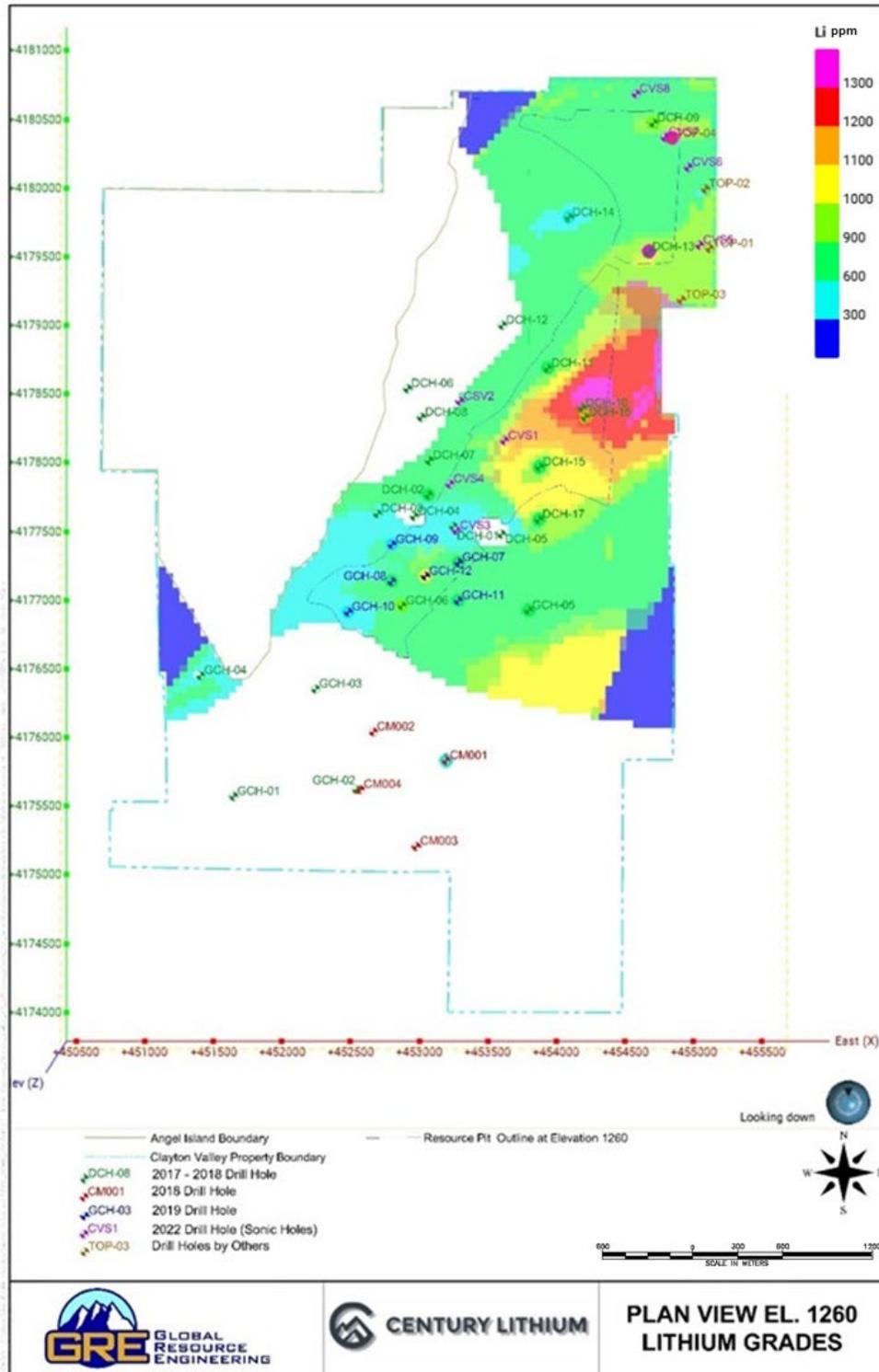
Plan views of lithium grades over a composite 10 m horizontal slice in the block model are shown for selected elevations in Figure 14-16 through Figure 14-19.



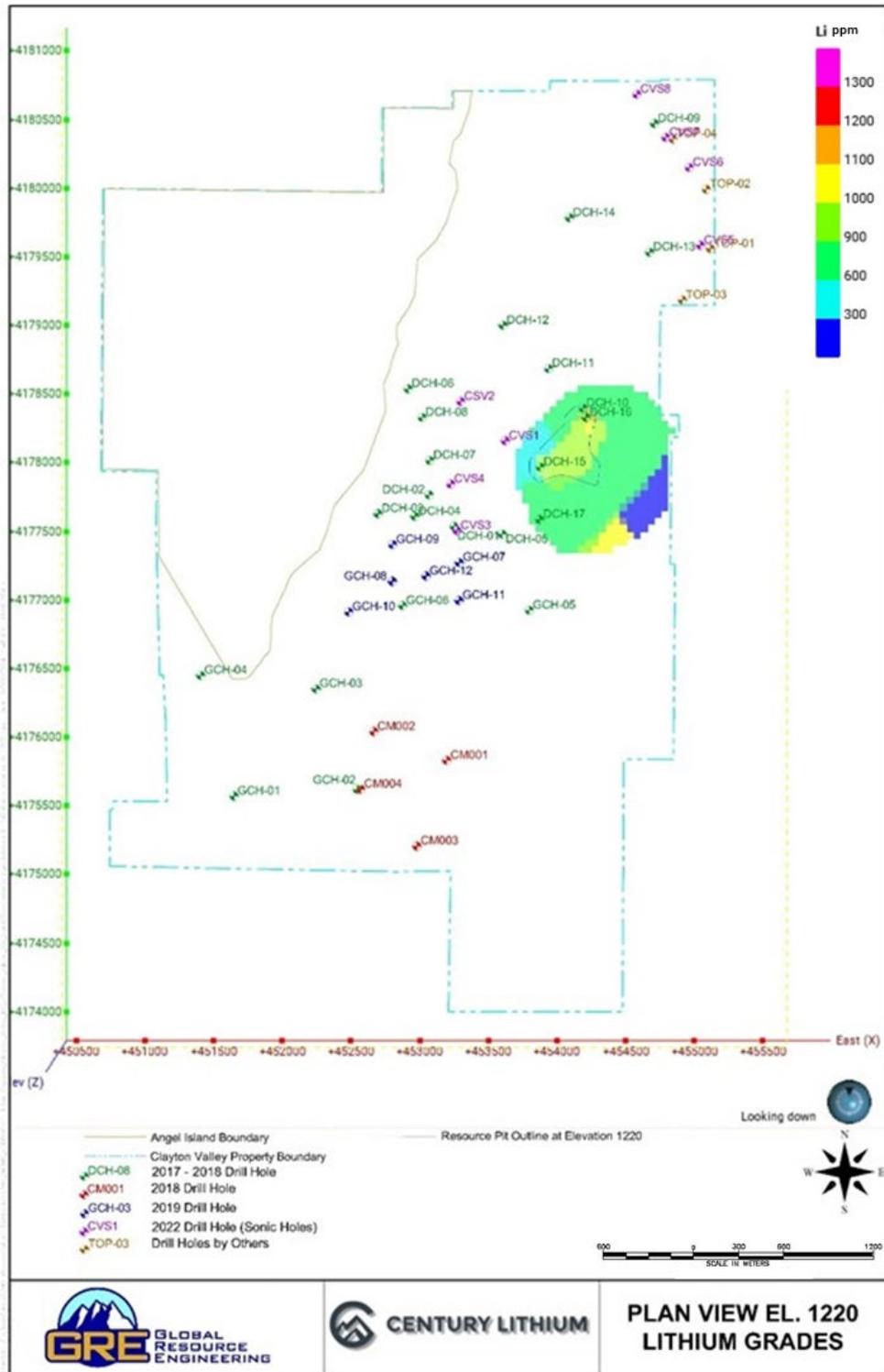
**Figure 14-16: Plan View of Modeled Lithium Grades at Elevation 1340 m (Source: GRE, 2022)**



**Figure 14-17: Plan View of Modeled Lithium Grades at Elevation 1300 m (Source: GRE, 2022)**



**Figure 14-18: Plan View of Modeled Lithium Grades at Elevation 1260 m (Source: GRE, 2022)**



**Figure 14-19: Plan View of Modeled Lithium Grades at Elevation 1220 m (Source: GRE, 2022)**

## **14.7 Reasonable Prospects for Eventual Economic Extraction**

### **14.7.1 Lithium Cut-off Grade**

Prior to resource modeling, an economic break-even grade for lithium was determined based on the formula:

Break-even grade = operating cost / (recovery x price)

where:

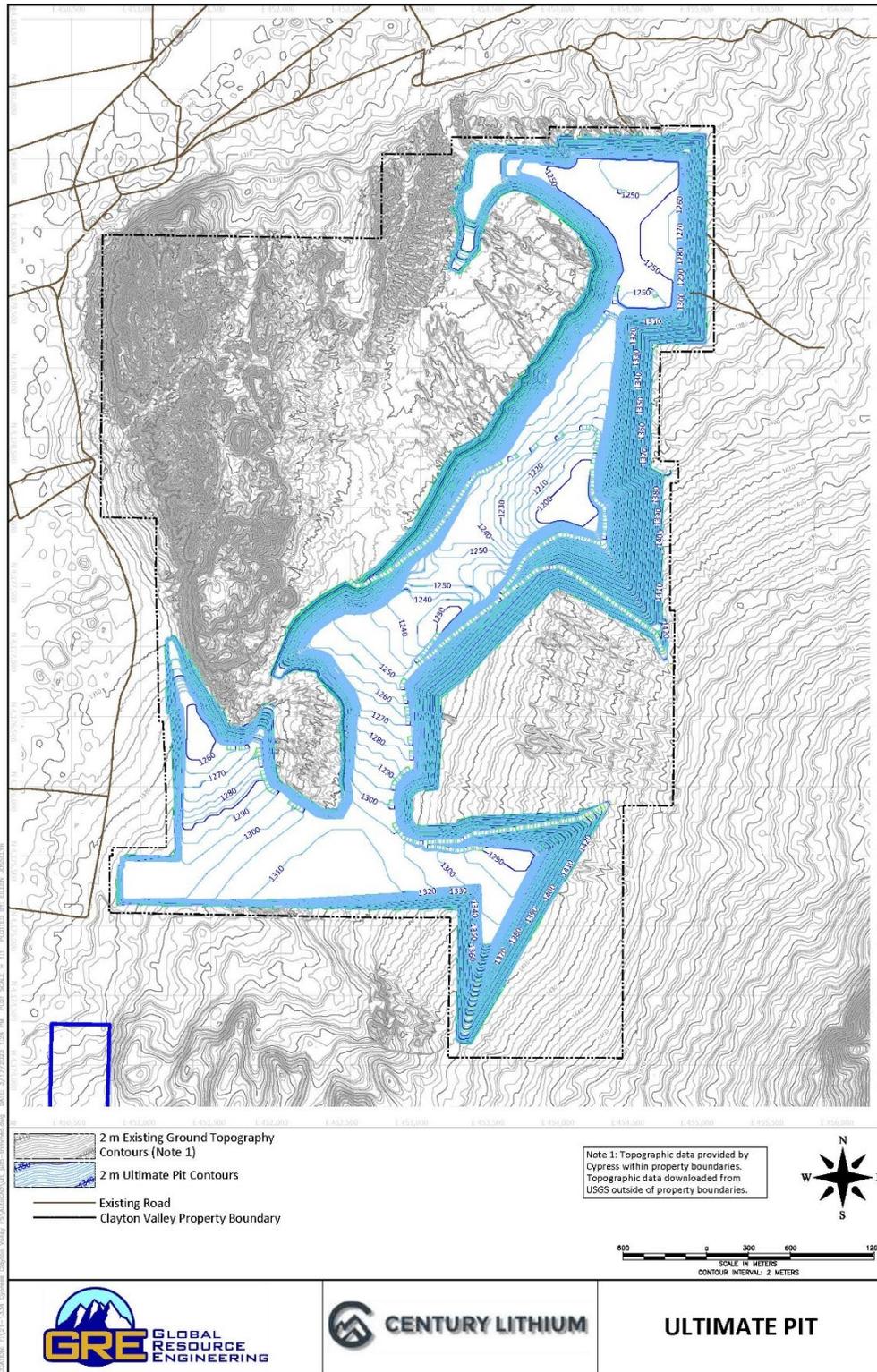
- operating cost is \$20/t of mill feed (considers mining cost, process and G&A costs (Table 15-1)),
- metallurgical recovery is 78%,
- price/tonne for lithium = \$24,000/t Li<sub>2</sub>CO<sub>3</sub> x 5.323 t Li<sub>2</sub>CO<sub>3</sub>/t Li = \$127,752/t,
- where \$24,000 is the base price assumed for lithium carbonate,
- and, 5.323 is the factor to convert between ppm lithium and ppm lithium carbonate.

Break-even grade = \$20/t / (78% × \$127,752/t) × 10<sup>6</sup> = 201 ppm Li (rounded to 200 ppm).

### **14.7.2 Constraining Pit Shell**

QP Lane did not generate a Whittle pit shell because at the estimated operating costs, recovery and current lithium carbonate price, Whittle will generate a pit that encompasses all mineralized material within the Property boundary. Instead, QP Lane generated a pit shell that encompasses all mineralized material within the Property excluding areas that will be used for project infrastructure and placement of tailings, waste, and low-grade material. The resulting pit shell is shown in Figure 14-20. This ultimate pit shell uses the slope angles described in Section 16 with a 50-m set-back from the Property boundary and infrastructure such as the process plant, TSF, WRSFs, and low-grade material stockpiles.

It is therefore the QP's opinion that the ultimate pit shell is comprised of those Mineral Resources with reasonable prospects for eventual economic extraction.



**Figure 14-20: Constraining Ultimate Pit Outline (Source: GRE, 2022)**

## 14.8 Mineral Resource Estimate

Table 14-4 presents the Mineral Resource estimate for Clayton Valley by lithological domain and confidence category assuming open pit mining methods and reported in accordance with 2014 CIM Definition Standards. A cut-off grade of 200 ppm Li was determined using a price of \$24,000/t lithium carbonate.

## 14.9 Estimate Validation

Geological evidence is derived from sufficiently detailed and reliable exploration, sampling and testing, and is sufficient to confirm geological and grade or quality continuity between points of observation. The estimated resources are 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 mine planning and evaluation of the economic viability of the deposit.

Validation of the resource model is supported by the following checks and comparisons.

### 14.9.1 Model to Drill Hole Validation

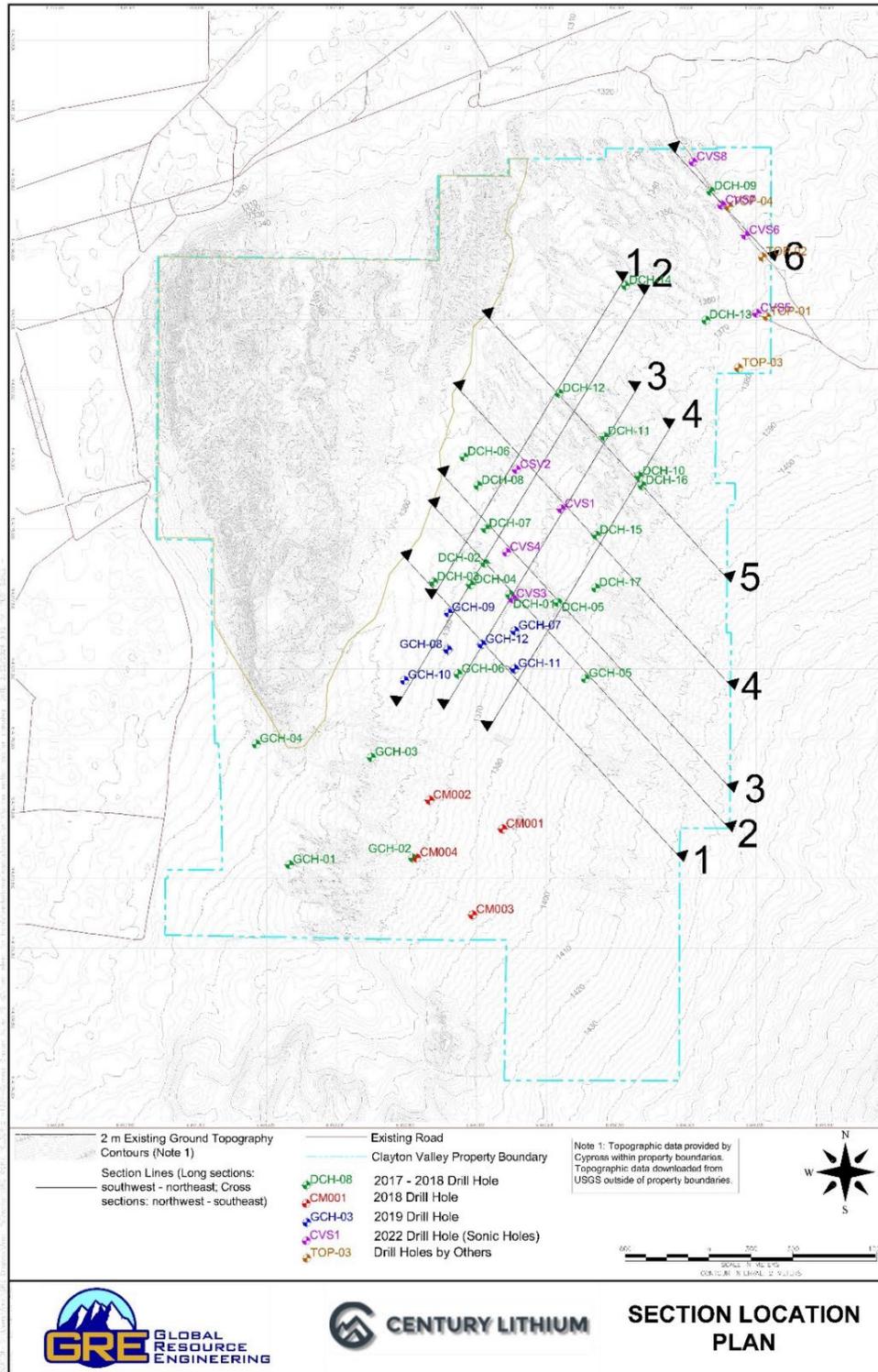
The sections indicate relatively flat lying depositional layers for each of the units. Figure 14-21 shows the cross-section locations. Figure 14-21 through Figure 14-31 present cross-sections and long-sections showing modeled lithium grades and lithology.

**Table 14-4: Clayton Valley Mineral Resource Estimate**

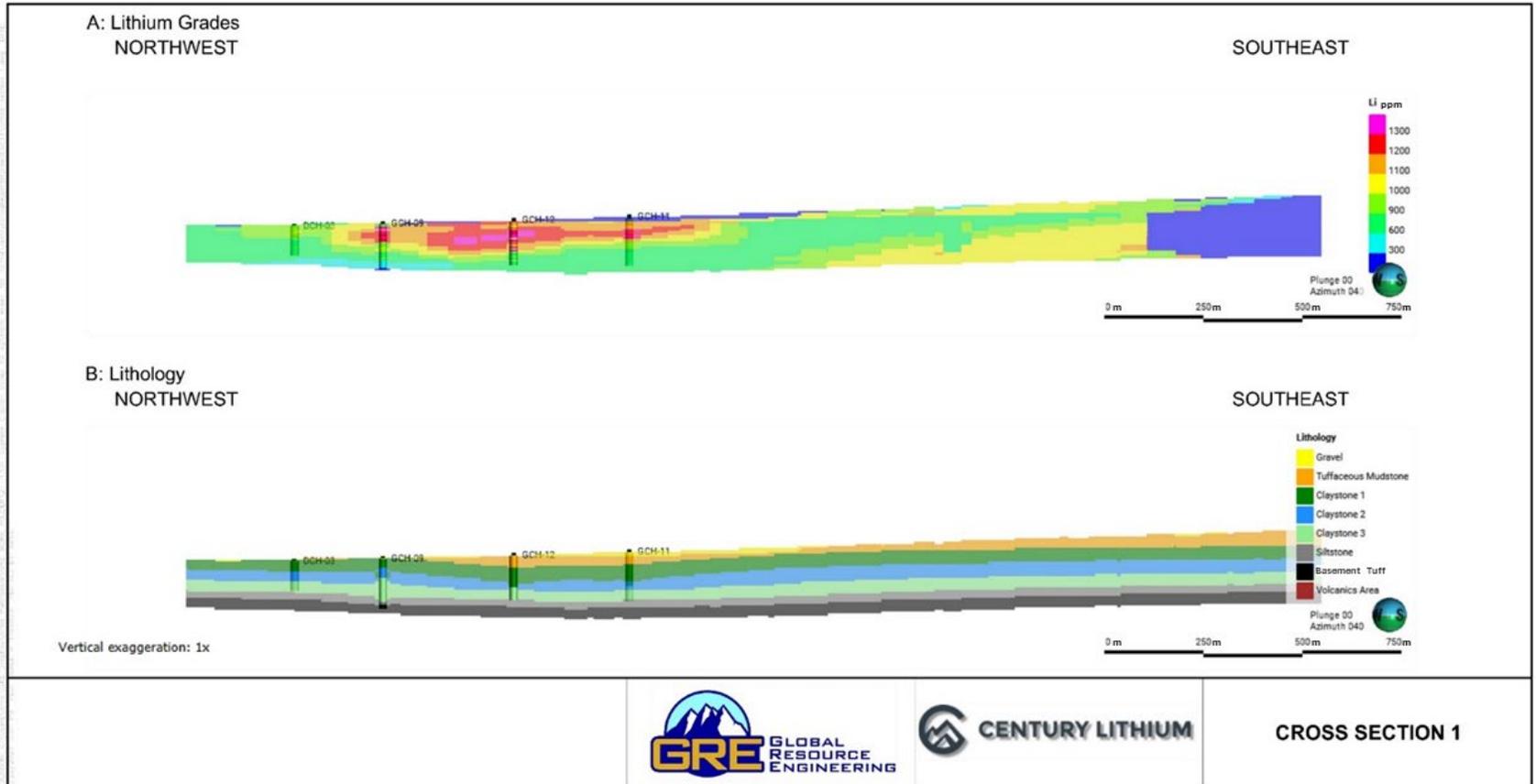
Domain	Tonnes Above Cut-off (millions)	Li Grade (ppm)	Li Contained (Mt)	LCE (Mt)
Measured				
Tuffaceous mudstone	49.12	787	0.039	<b>0.206</b>
Claystone all zones	682.84	1,055	0.720	3.835
Siltstone	126.31	717	0.091	0.482
<b>Total</b>	<b>858.26</b>	<b>990</b>	<b>0.850</b>	<b>4.523</b>
Indicated				
Tuffaceous mudstone	17.33	715	0.012	<b>0.066</b>
Claystone all zones	184.74	972	0.180	0.956
Siltstone	78.26	739	0.058	0.308
<b>Total</b>	<b>280.33</b>	<b>891</b>	<b>0.250</b>	<b>1.329</b>
Measured + Indicated				

<b>Domain</b>	<b>Tonnes Above Cut-off (millions)</b>	<b>Li Grade (ppm)</b>	<b>Li Contained (Mt)</b>	<b>LCE (Mt)</b>
Tuffaceous mudstone	66.45	768	0.051	<b>0.272</b>
Claystone all zones	867.58	1,037	0.900	4.791
Siltstone	204.57	725	0.148	0.790
<b>Total</b>	<b>1,138.59</b>	<b>966</b>	<b>1.099</b>	<b>5.852</b>
Inferred				
Tuffaceous mudstone	22.67	761	0.017	<b>0.092</b>
Claystone all zones	125.42	883	0.111	0.590
Siltstone	39.19	652	0.026	0.136
<b>Total</b>	<b>187.28</b>	<b>820</b>	<b>0.154</b>	<b>0.817</b>

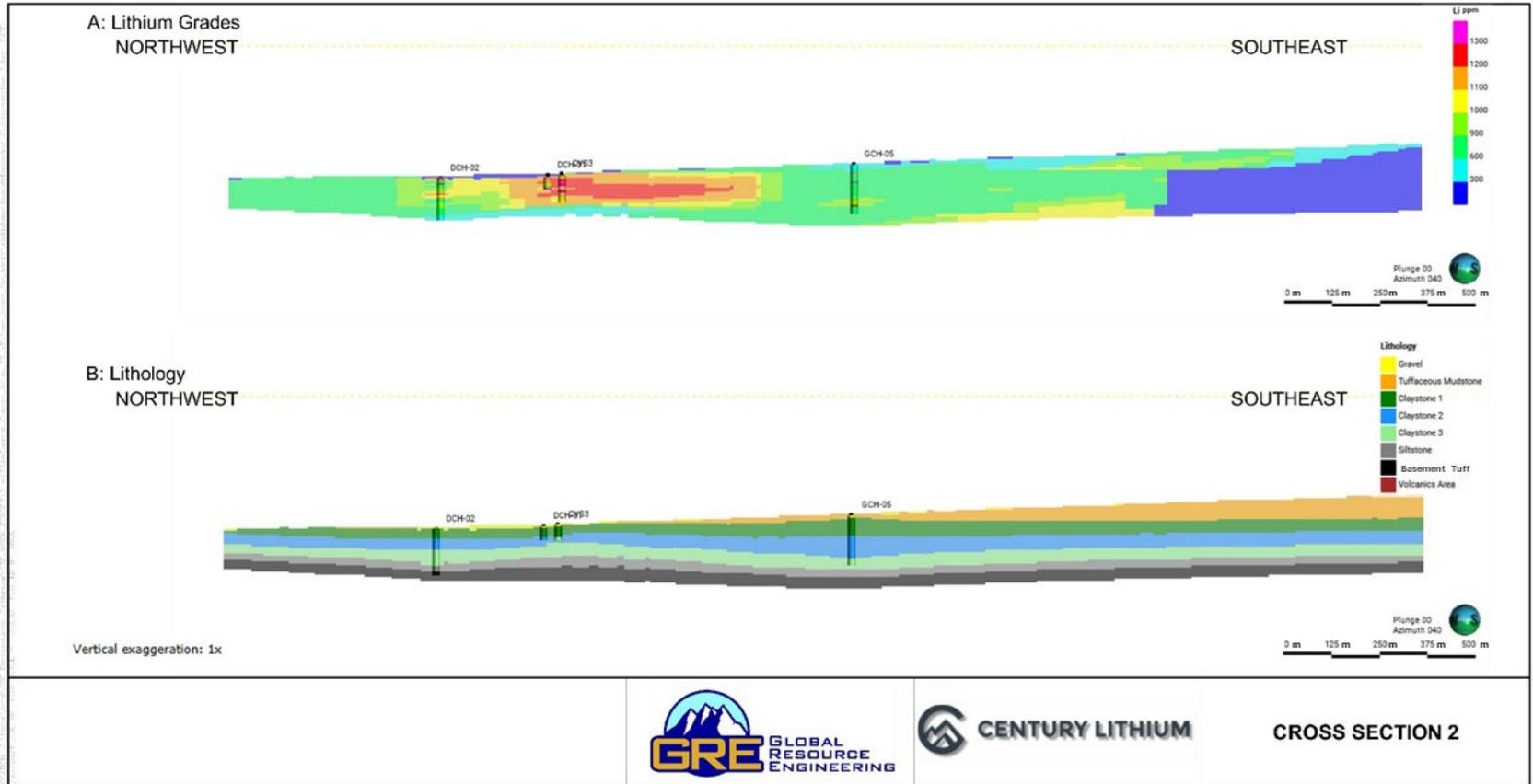
1. The effective date of the Mineral Resource Estimate is April 29, 2024. The QP for the estimate is Ms. Terre Lane, MMSA, an employee of GRE and independent of Century.
2. The Mineral Resources are constrained by a pit shell with a 200 ppm Li cut-off and density of 1.505 g/cm<sup>3</sup>. The cut-off grade considers an operating cost of \$20/t mill feed, process recovery of 78% and a long-term lithium carbonate price of \$24,000/t.
3. The Mineral Resource estimate was prepared in accordance with 2014 CIM Definition Standards and the 2019 CIM Best Practice Guidelines.
4. Mineral Resource figures have been rounded.
5. One tonne of lithium = 5.323 tonnes lithium carbonate.
6. Mineral Resources are inclusive of Mineral Reserves.



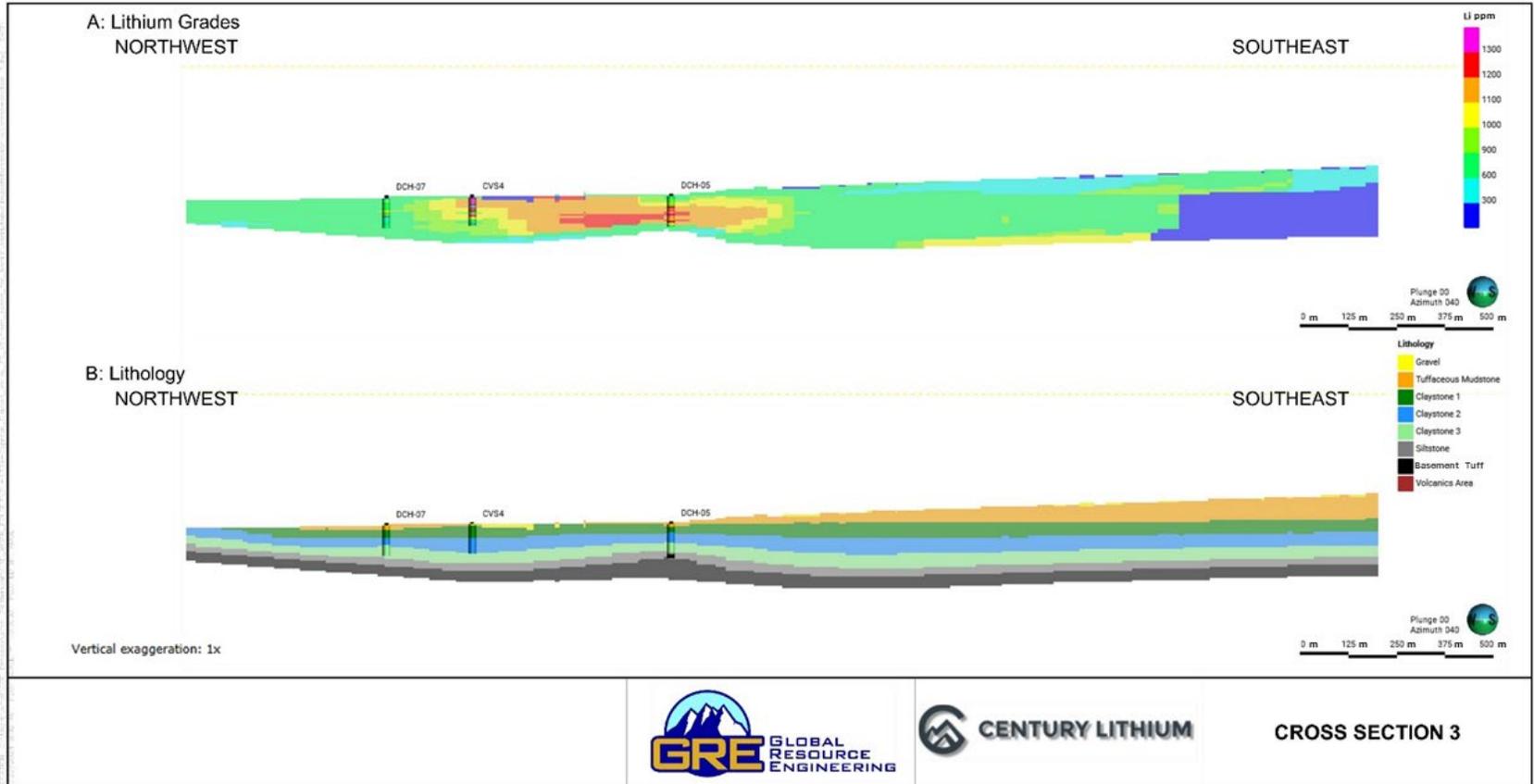
**Figure 14-21: Section Locations (Source: GRE, 2022)**



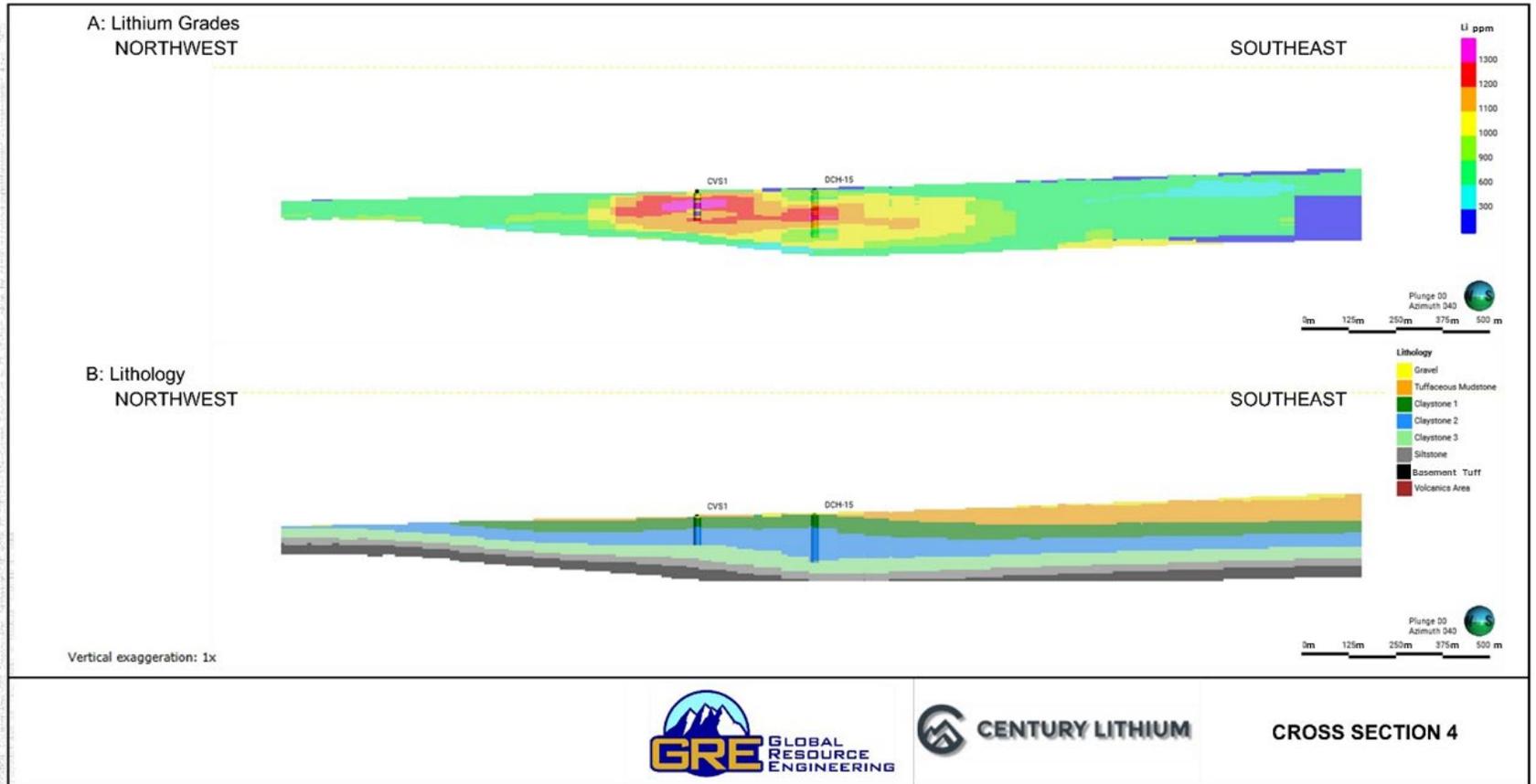
**Figure 14-22: Cross Section 1 (Source: GRE, 2022)**



**Figure 14-23: Cross Section 2 (Source: GRE, 2022)**



**Figure 14-24: Cross Section 3 (Source: GRE, 2022)**



**Figure 14-25: Cross Section 4 (Source: GRE, 2022)**

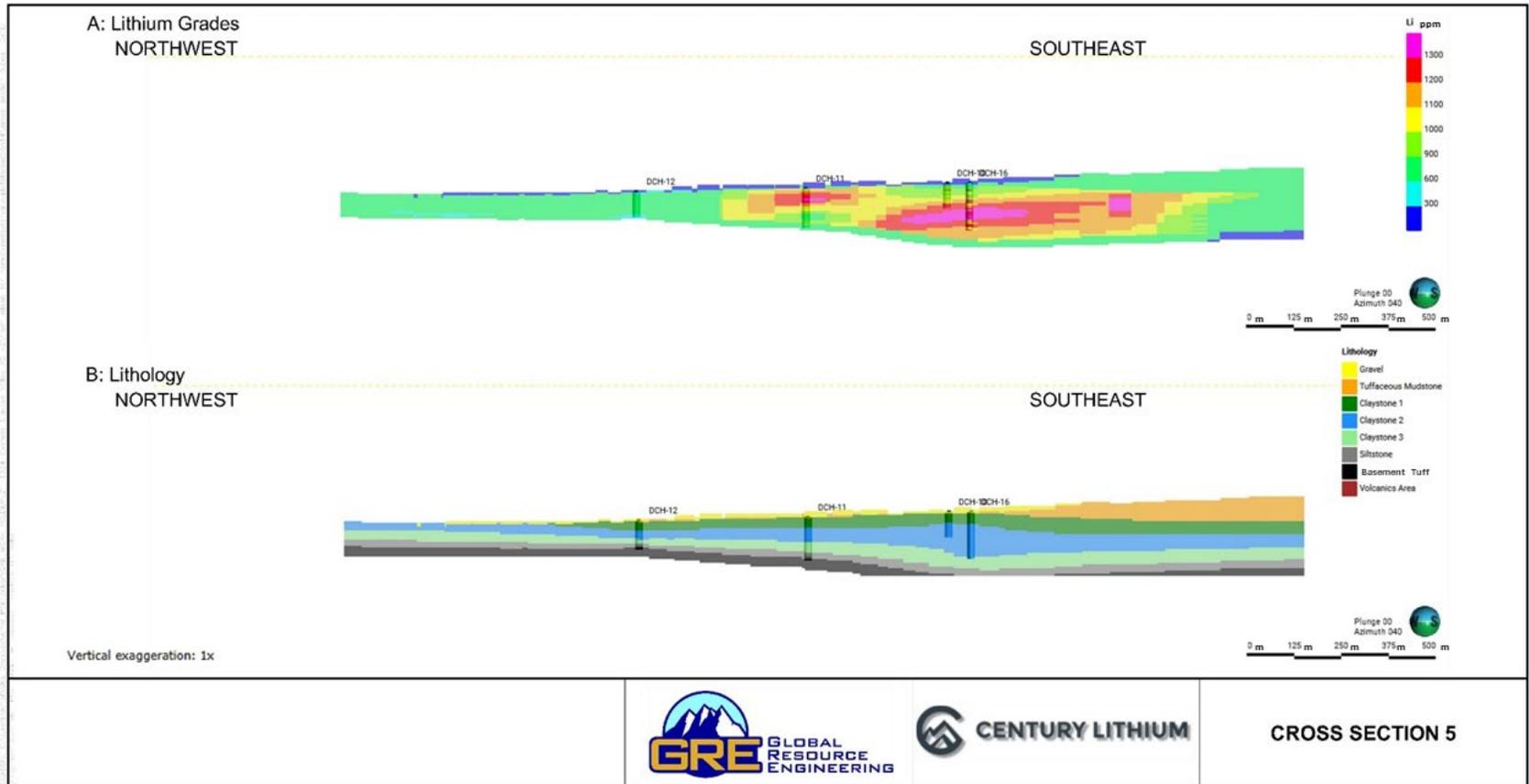


Figure 14-26: Cross Section 5 (Source: GRE, 2022)

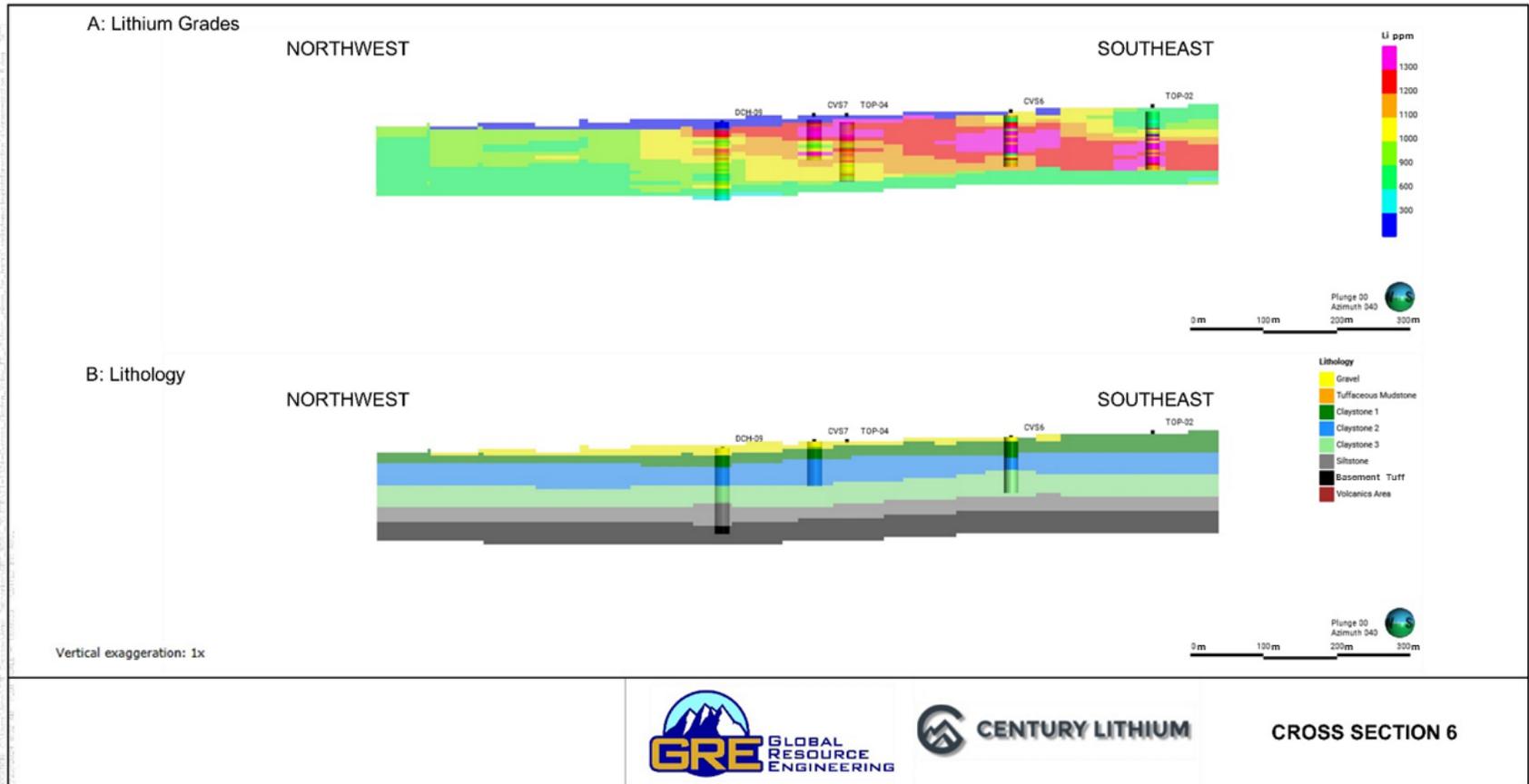
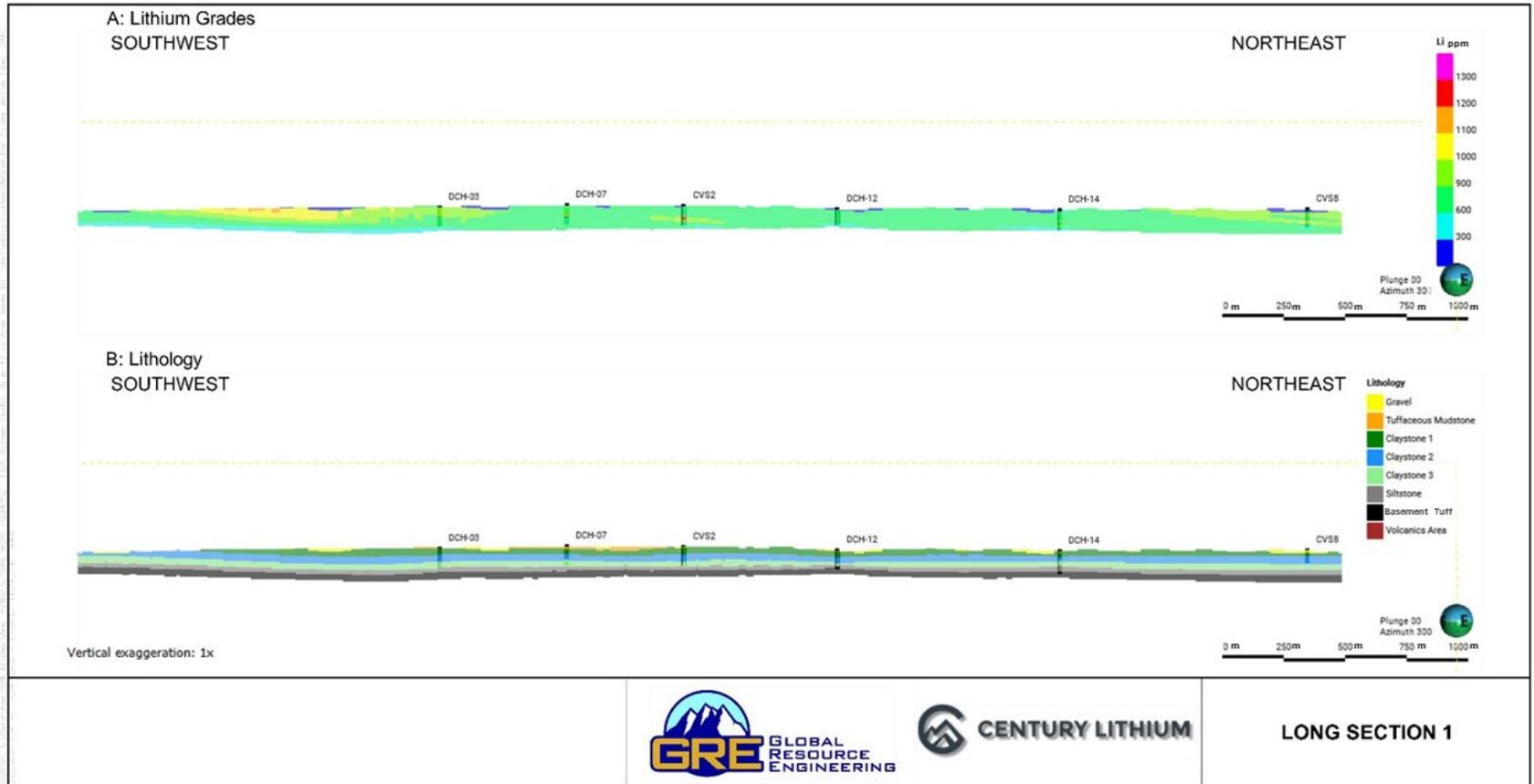
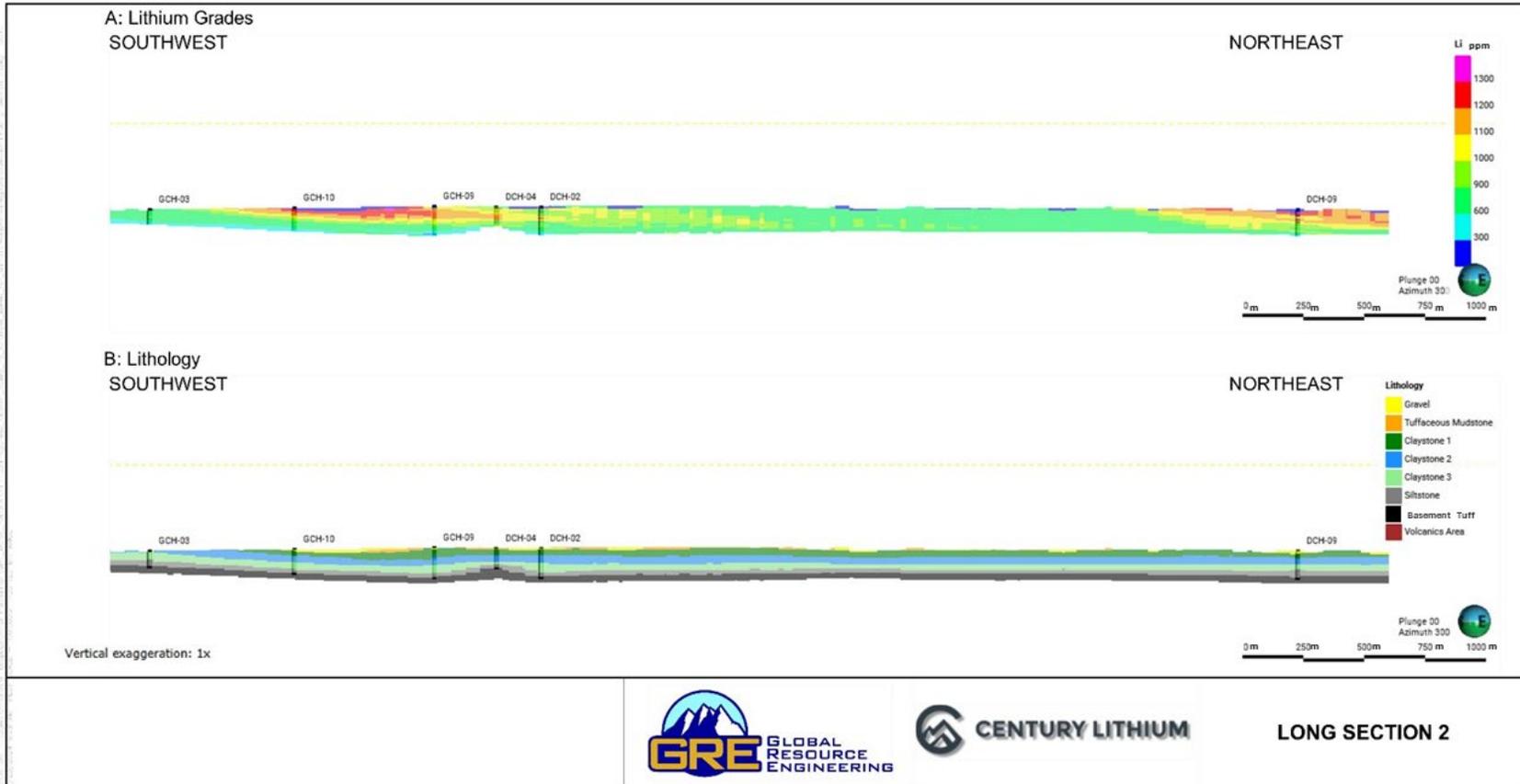


Figure 14-27: Cross Section 6 (Source: GRE, 2022)



**Figure 14-28: Long Section 1 (Source: GRE, 2022)**



**Figure 14-29: Long Section 2 (Source: GRE, 2022)**

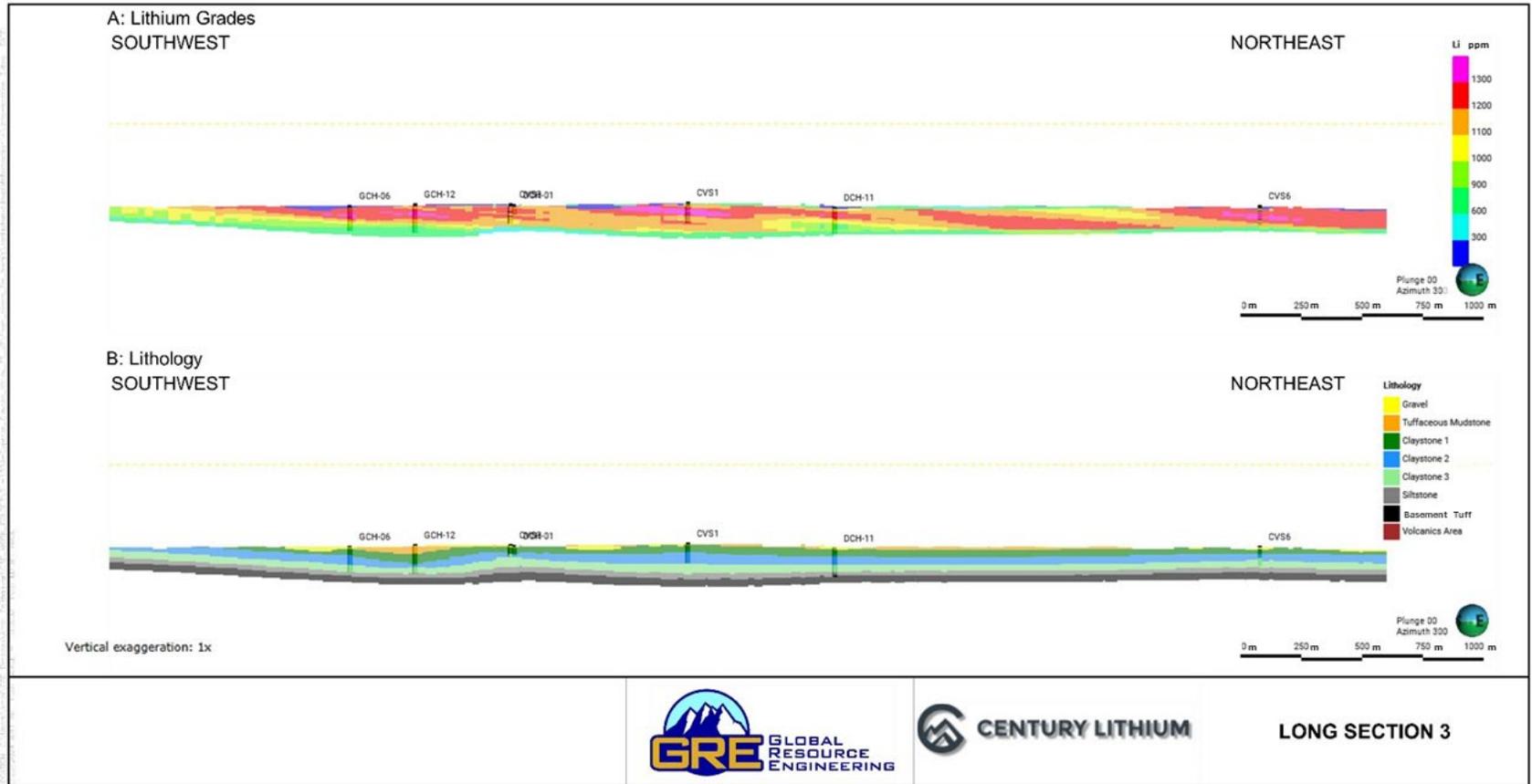


Figure 14-30: Long Section 3 (Source: GRE, 2022)

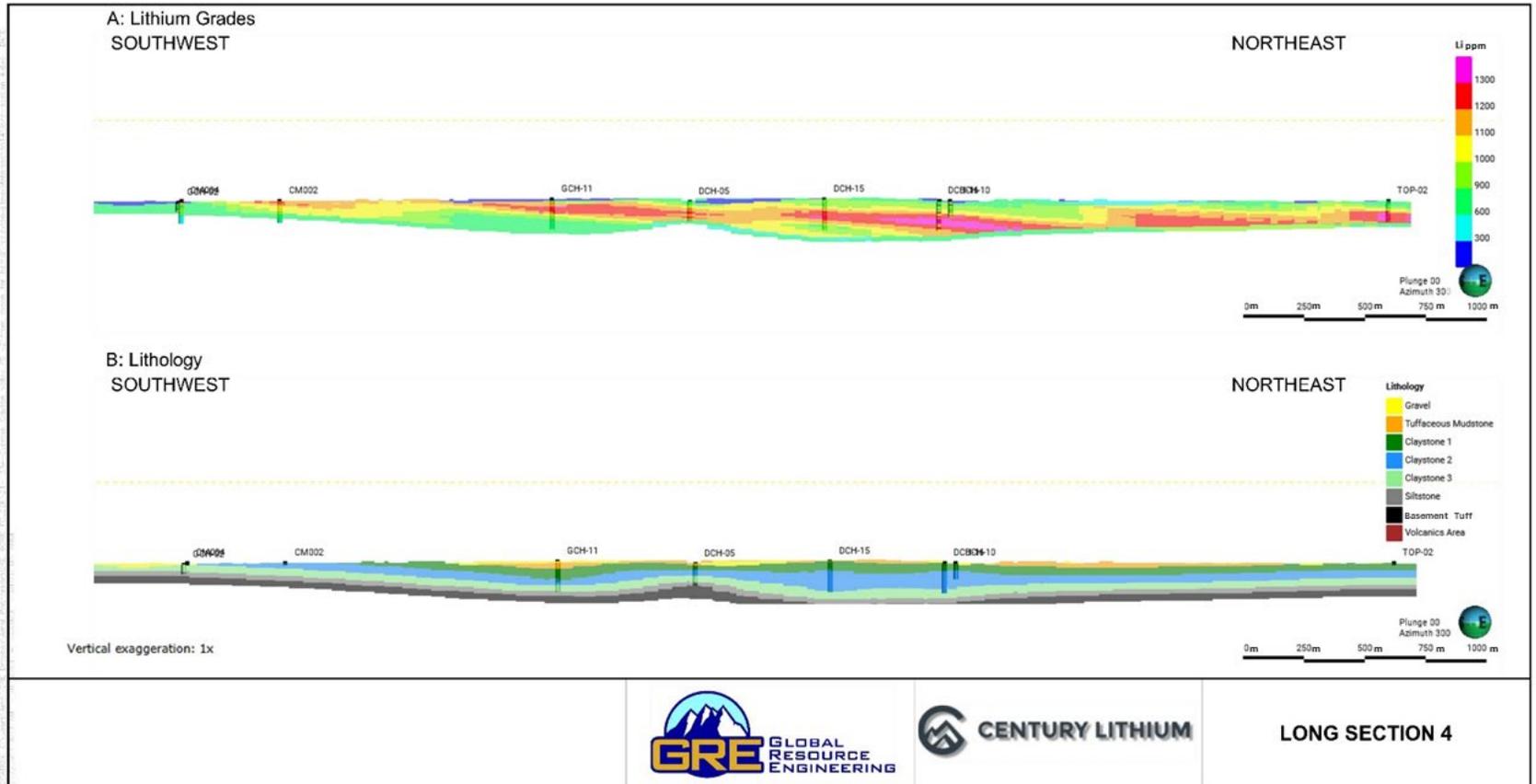
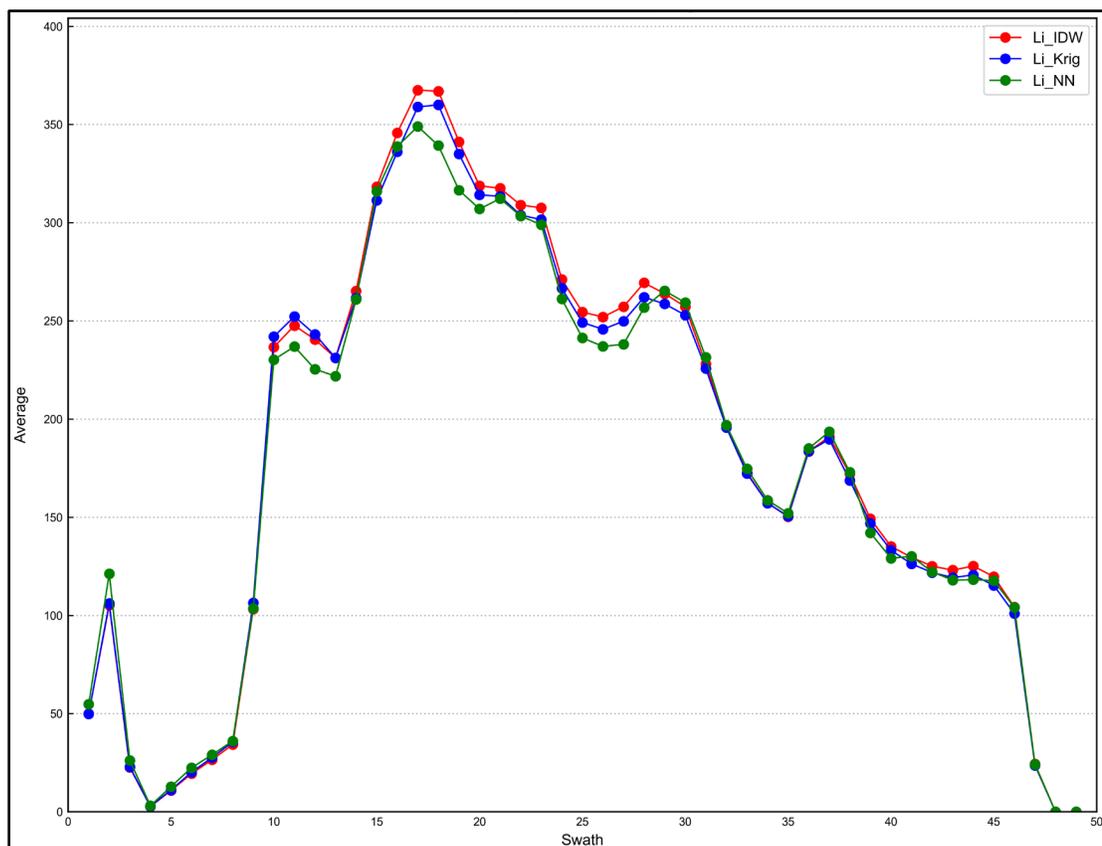


Figure 14-31: Long Section 4 (Source: GRE, 2022)

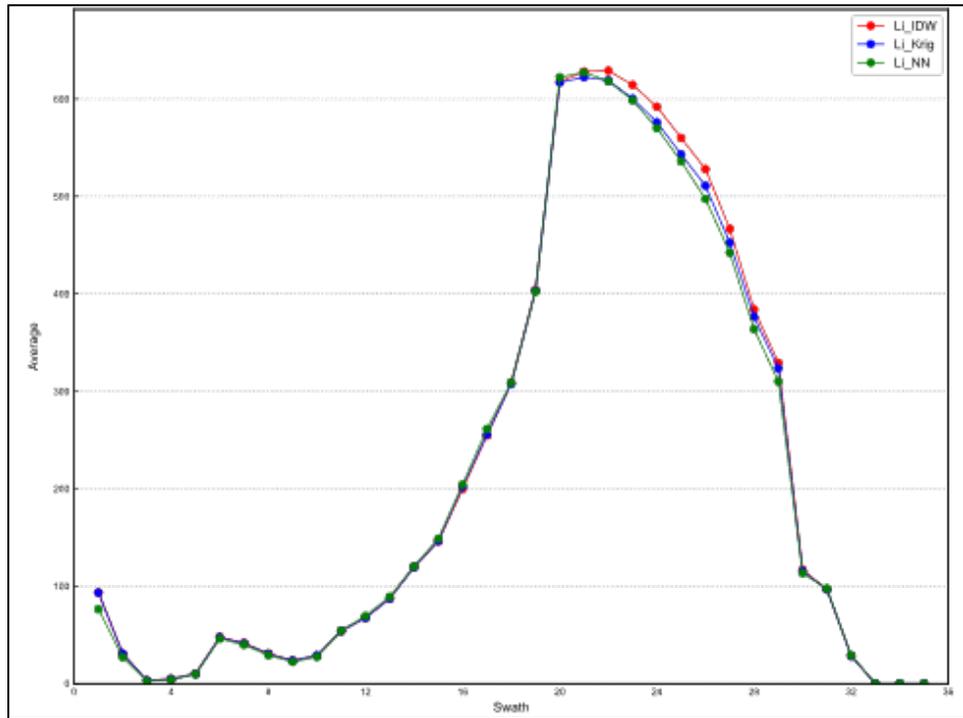
## 14.9.2 Swath Plots

To validate the model, estimations using the nearest neighbor (NN), ID<sup>2</sup> and ordinary kriging (OK) were performed within each domain. Swath plots were used to check the local trends between the grade estimation models. The mean values from the NN, ID<sup>2</sup> and OK estimates along north-south, east-west, and elevation swaths. Figure 14-32 to Figure 14-34 shows the swath plots along north-south, east-west and elevation where NN is shown in green, ID<sup>2</sup> is shown in red, and OK is shown in blue.

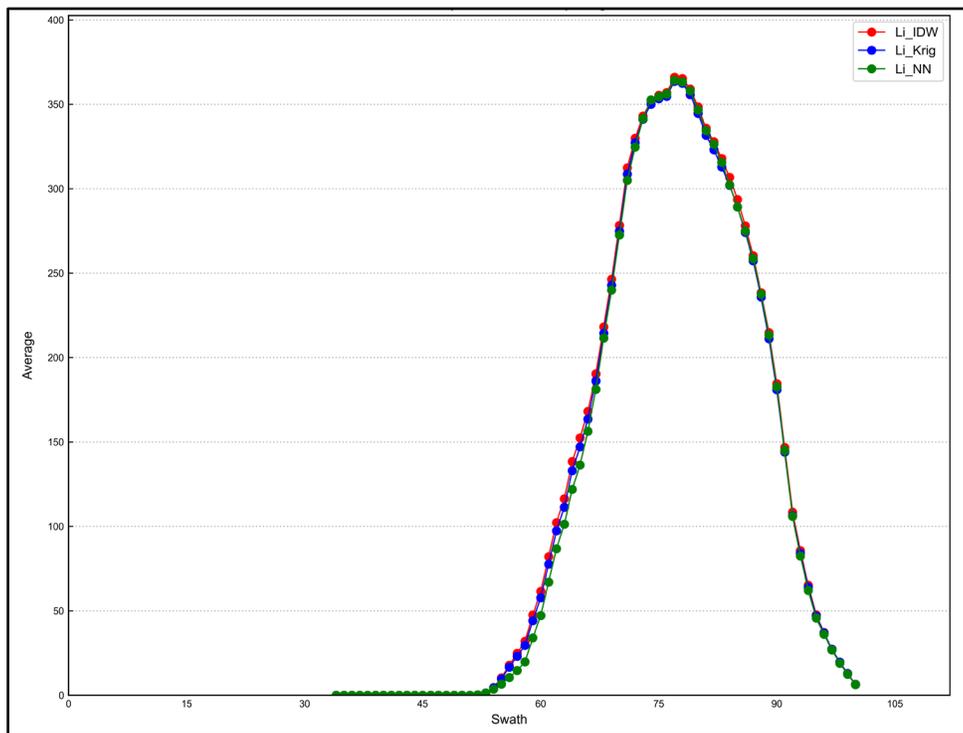
The NN, ID<sup>2</sup>, and OK models show similar trends in grades with the expected smoothing for each method. The observed trends show no significant bias between the estimates. Since, OK minimizes error variance to improve local accuracy, OK estimations overestimate low-grade material and underestimate high-grade material. Thus, ID<sup>2</sup> was used for resource estimation.



**Figure 14-32: Swath Plot along North-South (Source: GRE, 2022)**



**Figure 14-33: Swath Plot along East-West (Source: GRE, 2022)**



**Figure 14-34: Swath Plot along Elevation (Source: GRE, 2022)**

### 14.9.3 Drill Hole to Drill Hole Comparison

In 2022, Century drilled in-fill holes in both the central area of the Property (CSV1 to CSV4) and in the northeast corner (CVS5 to CVS8) (Figure 14-1). GRE evaluated the expected grades at the drill hole location based on the 2020 block model. The expected grades were then compared with the actual drill hole assay grades. The distribution and similarity in lithium values (Table 14-5) support the range and search parameters used in developing the resource model. Spacing in the in-fill program averaged 200 m in claystone; variograms show a range of 1,000 m in the major (northeast) axis and 450 m in the minor (southeast, downdip) axis.

**Table 14-5: In-fill Drill Hole Comparison**

Drill Hole ID	Depth (m)		Length (m)	Average Li (ppm) – Assay Grades	Average Li (ppm) – Expected Grade in Drill Hole Based on 2020 Block Model
	From	To			
CVS1	18.3	79.3	73.2	1,277	1,147
CVS2	3.0	79.3	81.4	808	862
CVS3	6.1	76.2	70.1	1,198	1,165
CVS4	3.0	76.2	73.1	1,095	993
CVS5	9.1	61.0	51.9	796	1,016
CVS6	6.1	76.2	70.1	1,263	1,215
CVS7	6.1	61.0	54.9	1,243	1,194
CVS8	6.1	76.2	79.4	840	1,115

### 14.10 Factors that Could Affect Mineral Resources

There are no known significant factors or risks that may affect property access, title, or the right to perform work on the Property. The Property comprises unpatented US Federal claims administered by the BLM and the claims come with the right to access and conduct mineral exploration and mining under the guidelines and rules set forth in the General Mining Act of 1872, 30 U.S.C. §§ 22-42.

To the best of the QP’s knowledge, there are no known legal, political, environmental, permitting, title, taxation, socio-economic, marketing, mining, metallurgical, or other factors that would further materially affect the Mineral Reserves reported other than what is mentioned in this Report and highlighted below.

The Mineral Resource estimate could be materially affected negatively by low market prices for lithium, and by difficulties in material handling and processing that would affect the recovery and production of salable lithium product. Changes in the estimated materials and supply costs, and in labor availability and rates are other factors that could materially affect the Mineral Resource estimate. The taxation and political environment for mining in Nevada is relatively

stable. Infrastructure development is required, including electrical power and water supply, to support the Project's phases of development.

## 15.0 MINERAL RESERVE ESTIMATE

This section is unchanged from the 2024 NI-43-101 Feasibility Study. QP Lane has reviewed the information presented in this Section and determined that no changes are required for the present FS.

Mineral Reserves were classified in accordance with the 2014 CIM Definition Standards. Modifying factors were applied to a portion of the Measured and Indicated Mineral Resources to convert them to Proven and Probable Mineral Reserves.

The pit-constrained Mineral Resources were used to derive the Mineral Reserves. This was accomplished by building a mine production schedule from an optimized sequence of pit shells which capture the Measured and Indicated blocks. The pit shells are nested within the ultimate pit-constrained shell.

### 15.1 Mine Design

Mineral Reserves were constrained to the property limits shown in Figure 14-1 and limited to the area of clay mineralization excluding the Angel Island rocks.

QP Lane believes the resource is adequately diluted based on the compositing method, and estimation method. The resource model was created to 50 x 50 x 5 m to generate a mine planning model. Mining will be performed using cold planers in 0.3 to 0.46-m thick slices, followed by windrowed drying allowing for ease in material handling, sampling and grade control. During mine operations, high-grade, low-grade and waste material boundaries will be delineated by a grade control model that uses a smaller block size, which will be defined by the smallest mining unit. The selective mining unit is much smaller than the block model used for mine planning. Thus, no additional dilution is added as a modifying factor to the 50 x 50 x 5 m mine planning block model.

Also, QP Lane believes dilution will be insignificant as there is very little internal waste within the deposit. During mine operations, mitigation of high-grade material loss will be a higher priority than mitigation of dilution to ensure that all high-grade mineralization is captured.

#### 15.1.1 Pit Design Parameters

The process of evaluating the resource block model and converting it to Mineral Reserves was accomplished by applying modifying factors relating to mining, processing, metallurgy, infrastructure, G&A support, and economic value for lithium (Table 15-1). The Mineral Reserves adhered to the property boundary, mined material produced a saleable product (lithium carbonate) and respected any legal, social, governmental and environmental constraints. Mineralized and waste material mining require similar excavation and materials handling, and

the costs were determined to be the same. All Inferred Mineral Resource blocks and gravel overburden were treated as waste and converted to waste blocks in the model. Processing and G&A costs were applied to the tonnes of plant feed. Material density, at 1.505 g/cm<sup>3</sup>, was applied throughout the block model. Process recovery, at 78%, was applied to the three claystone zones. Slope angles for each claystone zone were applied to the mine design as determined by the geotechnical analysis described in Section 16. The price of lithium in the design is \$20,000/t LCE. Using these parameters, the value of each material block is determined in the mine model.

**Table 15-1: Pit Design Parameters**

Parameter	Unit	Value
Mining Cost - mineralized material	\$/t	2.22
Mining Cost - waste	\$/t	2.22
Processing Cost	\$/t milled	16.69
Process Recovery	%	78
G&A Cost	\$/t milled	1.09
Material Density	g/cm <sup>3</sup>	1.505
Pit Slope – Overburden and Claystone Zone 1	degree	23
Pit Slope – Claystone Zone 2	degree	32
Pit Slope – Claystone Zone 3	degree	43
Lithium Price – Base Price	\$/t LCE	20,000

### 15.1.2 Pit Design Methodology

The widespread distribution of lithium within the claystone horizons prevents the deposit model from lending itself to the use of standard pit optimization algorithms.

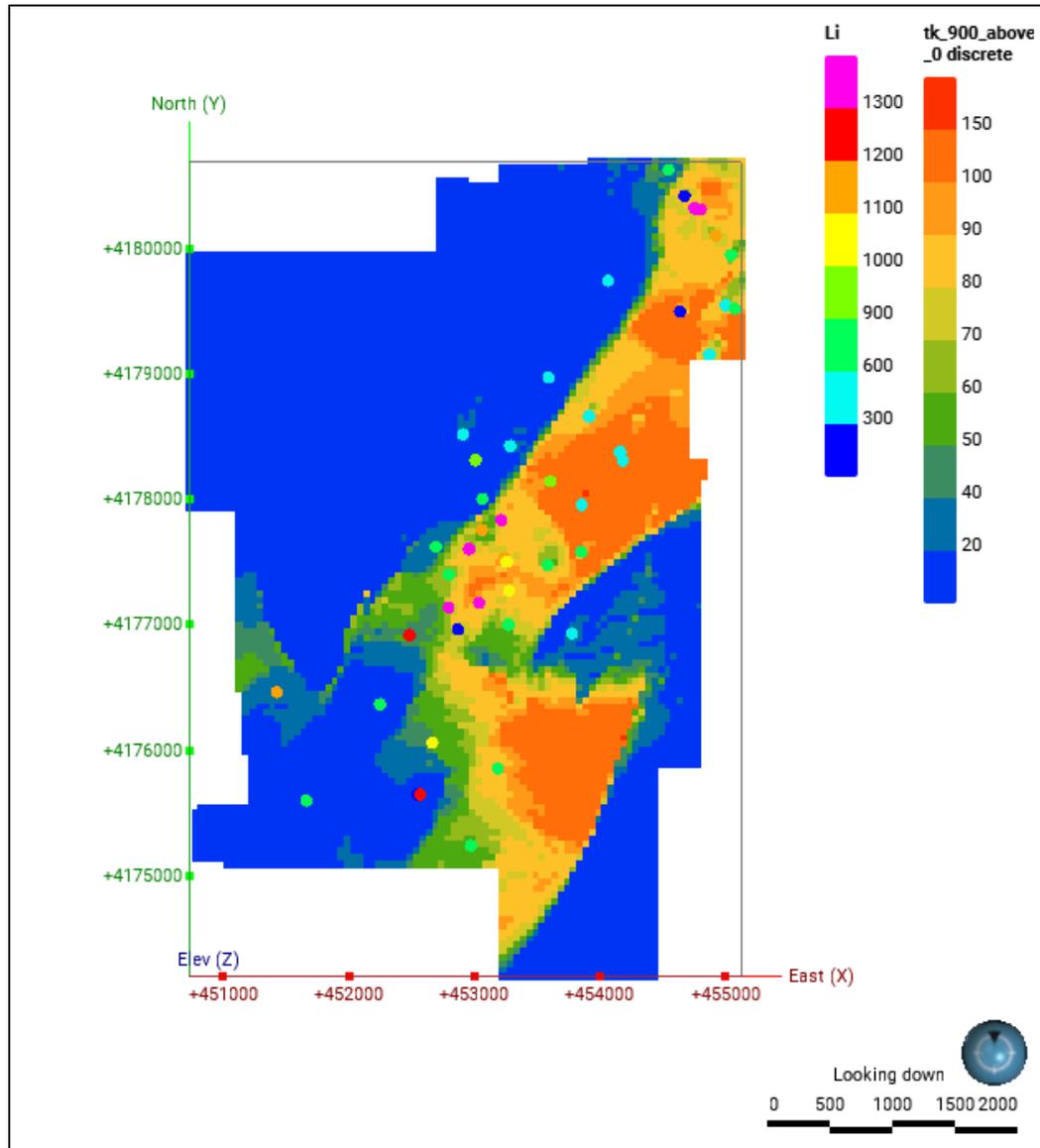
Grade-thickness maps of the Mineral Resources at different lithium cut-off grades (300 ppm, 400 ppm, 600 ppm, and 900 ppm) were created. A grade-thickness map of Mineral Resources over 900 ppm Li was selected (Figure 15-1) to target higher grade areas and was used as a guide in pit design.

The thickness of waste and low-grade material was considered to assist in the selection of a final pit location. The pit design focuses on mineralization that is located near surface starting around drill hole GCH-10, where higher-grade mineralization outcrops.

To generate a cohesive mine plan, QP Lane manually selected areas of >900 ppm Li within the resource block model, keeping the shape of the designed pit shell shallow and roughly rectangular in each cut to facilitate the equipment selection for mining.

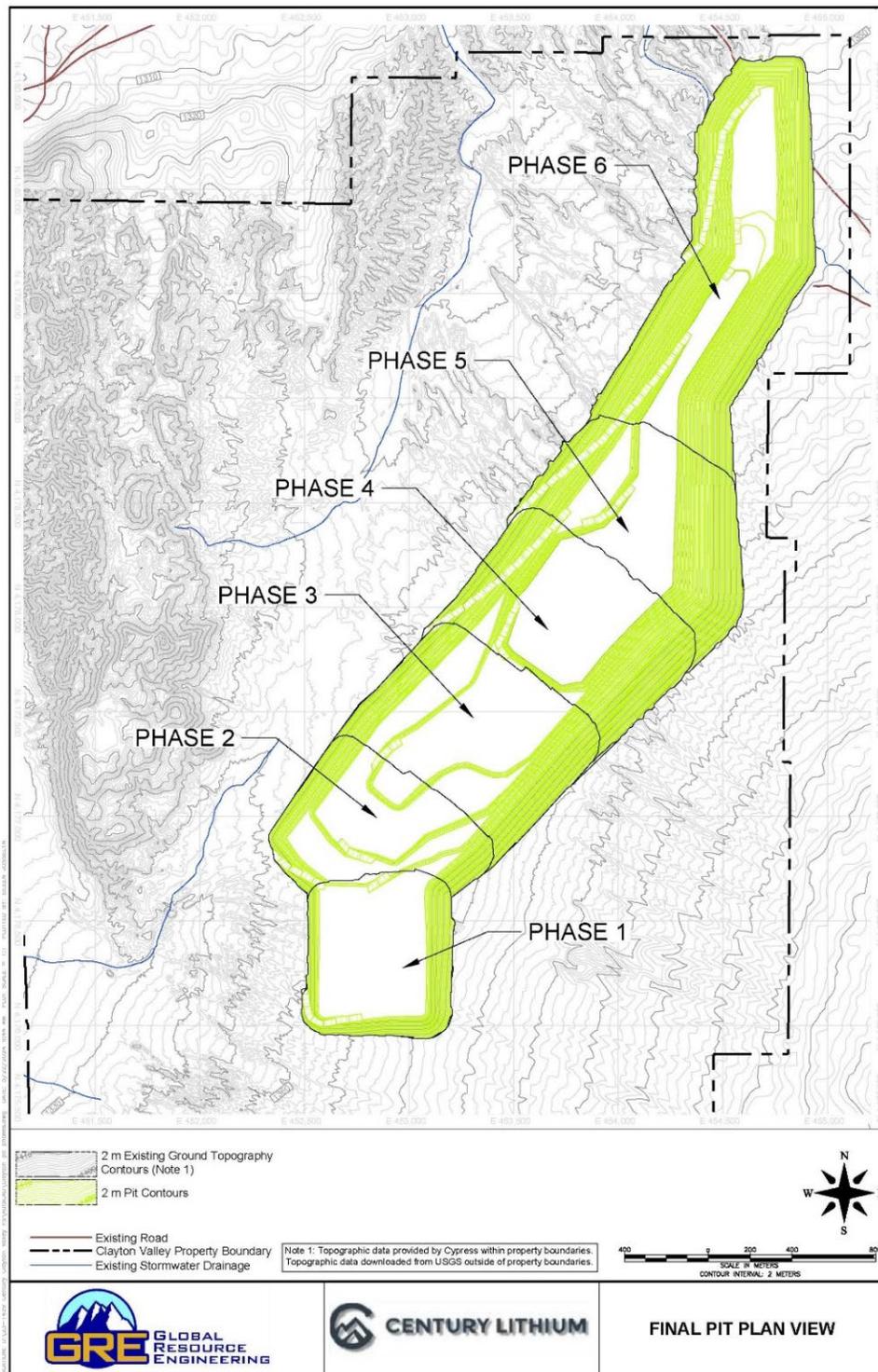
Using this approach, six pit phases were generated supporting the target feed rates to the plant of 7,500 t/d for the first four years (Project Phase 1) and 15,000 t/d for the remainder of the Project (Project Phase 2). The pit phases begin in the southwest and expand northeast, where

mining is deeper and encounters increasing amounts of low-grade material and overburden. The six pit phases form the final pit outline shown in Figure 15-2. The final pit outline is a subset of the ultimate pit determined to constrain the Mineral Resources.



**Figure 15-1: Grade-Thickness Map with Lithium Grade above 900 ppm (Source: GRE, 2022)**

Note: Li legend refers to the drill hole grades in ppm. tk\_900\_above 0 discrete refers to the total thickness (m) when grades of the block are greater than 900 ppm.



**Figure 15-2: Plan View–Final Pit Outline Showing the Six Pit Phases (Source: GRE, 2022)**

### **15.1.3 Lithium Cut-off Grade**

For Mineral Reserve determination purposes, a cut-off grade of 900 ppm Li was used. This grade was selected during the process of pit design as the criterion in choosing blocks to form each pit phase and to generate an optimized grade over the life of the mine plan.

Using the parameters in Table 15-1, a 900-ppm lithium grade generates a value per tonne that is more than 4.5 times the value generated by the break-even grade before subtracting operating cost. QP Lane determined this margin, which is greater than a factor of two, as it assures the mine schedule will generate sufficient operating margin to maximize the return on capital and reduce risk. A 900-ppm Li cut-off was therefore considered as an appropriate grade for mine planning and reporting the Mineral Reserves.

Lithium bearing material mined in the pit between 400 and 900 ppm Li is designated as low-grade material to stockpile for possible future treatment and is not included in the Mineral Reserves. This material is treated as waste and included with gravel overburden and Inferred material in the determination of stripping ratio.

## **15.2 Mineral Reserve Statement**

The cumulative result for all six pit phases forms the Mineral Reserves presented in Table 15-2. The Mineral Reserves have been classified in accordance with the 2014 CIM Definition Standards. All Measured Mineral Resources above cut-off within the final pit were converted to Proven Mineral Reserves and all Indicated Mineral Resources above cut-off within the final pit were converted to Probable Mineral Reserves. Inferred Mineral Resources are not part of the Mineral Reserve statement or mine production plan.

Claystone zone 1 and claystone zone 2 contain 87% of the total material tonnes and 83% of the total contained lithium.

**Table 15-2: Clayton Valley Mineral Reserve Estimate**

Domain	Tonnes Above Cut-off (millions)	Li Grade (ppm)	Li Contained (Mt)	LCE (Mt)
Proven				
Tuffaceous Mudstone	8.68	1,159	0.010	0.054
Claystone Zone 1	122.34	1,135	0.139	0.739
Claystone Zone 2	111.19	1,161	0.129	0.687
Claystone Zone 3	24.18	1,140	0.028	0.147
Siltstone	0.00		0.000	0.000
<b>Total</b>	<b>266.39</b>	<b>1,147</b>	<b>0.306</b>	<b>1.626</b>
Probable				
Tuffaceous Mudstone	0.01	1,147	0.000	0.000
Claystone Zone 1	8.67	1,123	0.010	0.052
Claystone Zone 2	7.26	1,190	0.009	0.046
Claystone Zone 3	5.32	1,234	0.007	0.035
Siltstone	0.00		0.000	0.000
<b>Total</b>	<b>21.26</b>	<b>1,174</b>	<b>0.025</b>	<b>0.133</b>
<b>Total Proven and Probable</b>	<b>287.65</b>	<b>1,149</b>	<b>0.330</b>	<b>1.759</b>

1. The effective date of the Mineral Reserve Estimate is April 29, 2024. The QP for the estimate is Ms. Terre Lane, MMSA, an employee of GRE and independent of Century.
2. The Mineral Reserve estimate was prepared in accordance with 2014 CIM Definition Standards and 2019 CIM Best Practice Guidelines.
3. Mineral Reserves are reported within the final pit design at a mining cut-off of 900 ppm. The mine operating cost is \$5.44/t milled, processing cost of \$40.9/t milled, G&A cost of \$2.68/t milled and a credit for the NaOH sales of \$28.95/t milled. The NaOH sales credit is proportionally applied to all the operating costs to get appropriate costs for the cut-off grade calculation. The base-case project remains economically viable without NaOH credit. The cut-off grade considers a mine operating cost of \$2.22/t, a process operating cost of \$16.69/t milled, a G&A cost of \$1.09/t milled, process recovery of 78% and a long-term lithium carbonate price of \$24,000/t.
4. The cut-off of 900 ppm is an elevated cut-off selected for the mine production schedule as the elevated cut-off is 4.5 times higher than the break-even cut-off grade.
5. Mineral Reserve figures have been rounded.
6. One tonne of lithium=5.323 tonnes lithium carbonate.

### 15.3 Factors that Could Affect Mineral Reserves

The taxation and political environment for mining in Nevada is relatively stable. The Project requires infrastructure development, including the development of electrical power and water supply.

There are no known significant factors or risks that may affect property access, title, or the right to perform work on the property. The property comprises unpatented US Federal claims administered by the BLM and the claims come with the right to access and conduct mineral exploration and mining under the guidelines and rules set forth in the General Mining Act of 1872, 30 U.S.C. §§ 22-42.

To the best of the QP's knowledge, there are no known legal, political, environmental, permitting, title, taxation, socio-economic, marketing, mining, metallurgical, or other factors that would further materially affect the Mineral Reserves reported other than what is mentioned in this Report and highlighted below:

- Market price for lithium carbonate
- Changes in local interpretations of mineralization geometry and continuity of mineralized zones
- Changes to geological and mineralization shapes, and geological and grade continuity assumptions
- Density and domain assignments
- Changes to geotechnical assumptions including pit slope angles
- Changes to mining and metallurgical recovery assumptions
- Change to the input and design parameter assumptions.

## 16.0 MINING METHODS

### 16.1 Summary

All materials within the Project's resource area are relatively flat lying soft sedimentary rocks 100 to 140 m thick. The deposit is covered by a thin veneer of alluvial gravels. The material is very soft, so drilling and blasting will not be required.

The Clayton Valley Lithium Project will employ conventional open pit mining techniques using hydraulic shovels and rear dump rigid frame haul trucks. The mine plan is designed to deliver an average of 7,500 t/d of reserves to the plant during phase 1 and 15,000 t/d of reserves to the plant during phase 2.

### 16.2 Geotechnical Analysis

The open pit excavation mines five different material types that have been identified through multiple mineral exploration campaigns including surface gravel (alluvium), tuffaceous mudstone, claystone zone 1, claystone zone 2, and claystone zone 3. Sampling and physical testing of in situ soils from exploratory drill holes were performed within the pit limit. Samples collected represent claystone zone 1 and claystone zone 2 only; no samples were tested from the other units. The information from these samples was used in the stability analysis to determine the appropriate slope angles for pit design. This information was also used in the design of the stockpiles and WRSFs that form part of the Project infrastructure.

#### 16.2.1 Pit Geotechnical Sampling and Testing

A total of 21 claystone samples were collected for laboratory testing at various depths from drill holes GCH-10, GCH-11, GCH-12, and CVS8 from two drilling campaigns. The tests were performed by independent testing laboratory Advanced Terra Testing in Lakewood, Colorado, following the technical standards of the American Society for Testing and Materials (ASTM) and completed in April 2019 and November 2022.

The laboratory tests included:

- Atterberg Limits (ASTM D4318)
- Shrinkage Limits (ASTM D4943)
- Specific Gravity (ASTM D854 – Method 8)
- Grain Size Analysis with Hydrometer (ASTM D6913, D7928)
- One-Dimensional Consolidation (ASTM D2435)
- Direct Shear (ASTM D3080)
- Consolidated Undrained Staged Triaxial Compression (ASTM D4767).

Table 16-1 and Table 16-2 show the samples collected and tests performed, respectively.

**Table 16-1: Collected Pit Geotechnical Samples**

Sample ID	Source Drill Hole	Depth (m)	
		From	To
512012	GCH-12	4.0	4.2
512013		20.1	20.3
512014		32.1	32.3
512015		51.6	51.8
512016		68.0	68.2
512018		105.1	105.3
512020	GCH-10	20.0	20.2
512022	GCH-11	11.0	11.2
512023		23.9	24.3
512024		44.6	44.8
512025		61.6	61.8
512026		87.6	87.8
512027		120.8	121.0
484012	CVS8	7.0	7.2
484013		19.3	19.5
484014		27.9	28.1
484015		37.0	37.2
484016		46.6	46.8
484017		55.2	55.4
484018		67.4	67.6
484019		74.2	74.4

**Table 16-2: Pit Geotechnical Samples Testing Completed**

Testing	Sample(s)
ASTM D4318	Composite (512014, 512015, 512016); 512020; 512026, 484012 through 484019
ASTM D4943	Composite (512014, 512015, 512016); 512027 (x2); 512020 (x2); 484012; 484015; 484019
ASTM D854 – Method 8	Composite (512014, 512015, 512016); 484012; 484015; 484019
ASTM D6913, D7928	Composite (512014, 512015, 512016); 512020; 512026; 484012; 484015; 484019
ASTM D2435	512012; 512016; 512018; 512023; 512025; 512026; 484013; 484015; 484019
ASTM D3080	Composite (512014, 512015, 512016); 512022; 484019
ASTM D4767	512012; 512014; 512018; 484013; 484017

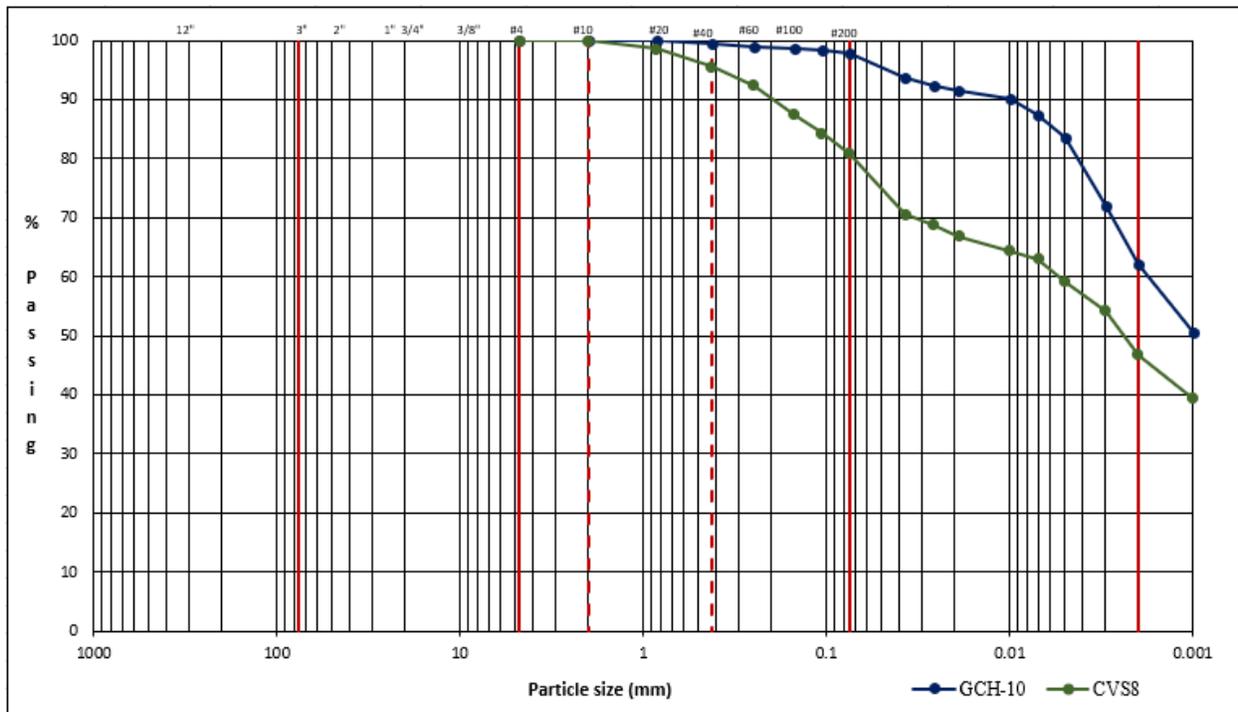
## 16.2.2 Materials Classifications

Two laboratory testing programs were conducted to characterize subsurface conditions. Testing revealed claystone zone 1 as a highly plastic clay (CH) and claystone zone 2 as a mix of clay (CL) and highly plastic clay (CH) according to the Unified Soil Classification System (USCS) (Table 16-3). The resulting particle size distributions are displayed in Figure 16-1 and Figure 16-2.

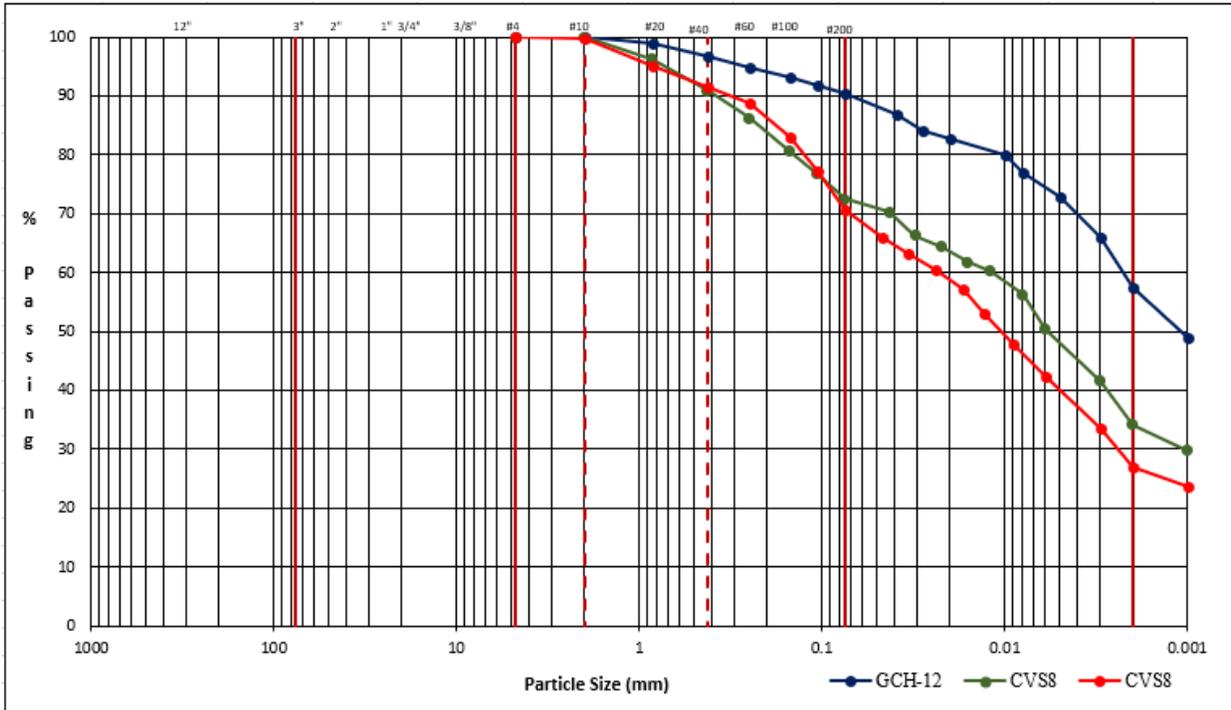
**Table 16-3: Material Characteristics of Lithologies**

Unit	USCS Classification	LL	PL	PI	Fines (Passing #200)	Clay Percent
Claystone Zone 1	CH	59	23	37	89.4	50.3
Claystone Zone 2	CL, CH	57	26	31	77.8	39.5

Note: PL = Plastic Limit; LL = Liquid Limit; PI = Plasticity Index

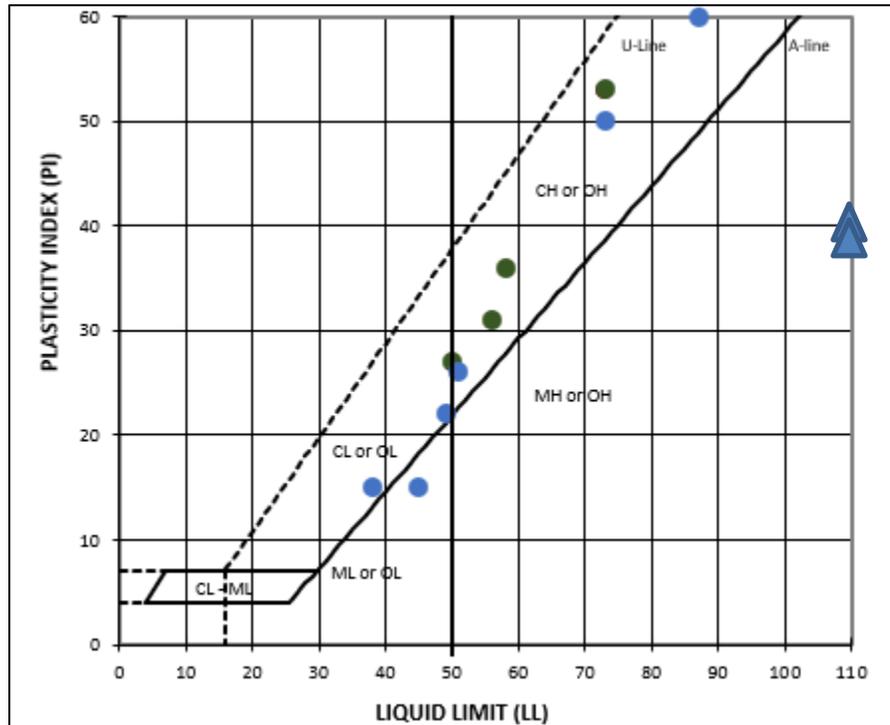


**Figure 16-1: Particle Size Distribution—Claystone Zone 1 (Source: GRE, 2023)**



**Figure 16-2: Particle Size Distribution—Claystone Zone 2 (Source: GRE, 2023)**

As can be observed from the laboratory testing, both claystone zone 1 and claystone zone 2 have highly plastic behavior and similar high capacities to retain water, as reflected in their Plastic Limit (PL), Liquid Limit (LL), and Plasticity Index (PI). Plastic Limit is the percent moisture content by weight at which a soil begins to behave as a plastic. Liquid Limit is the moisture content above which a soil becomes fluid. The Plasticity Index is the difference in percent between the two. Plastic behavior in a material can affect both mining and processing. Claystone zones 1 and 2 plot similarly on a Plasticity Chart, with the Atterberg Classification CL or CH, for plastic or highly plastic clay Figure 16-3.

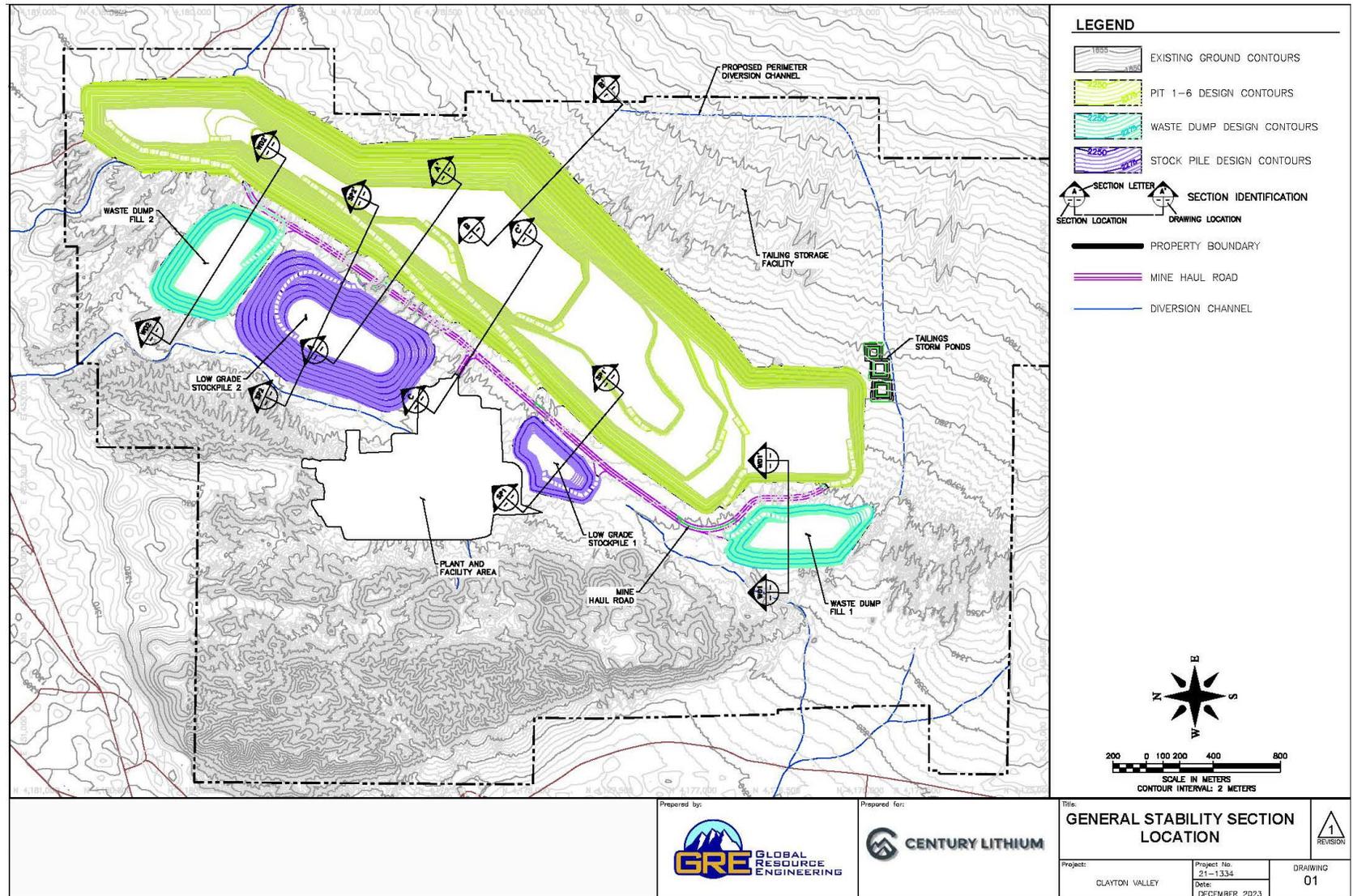


**Figure 16-3: Plasticity Chart (Source: GRE, 2023)**

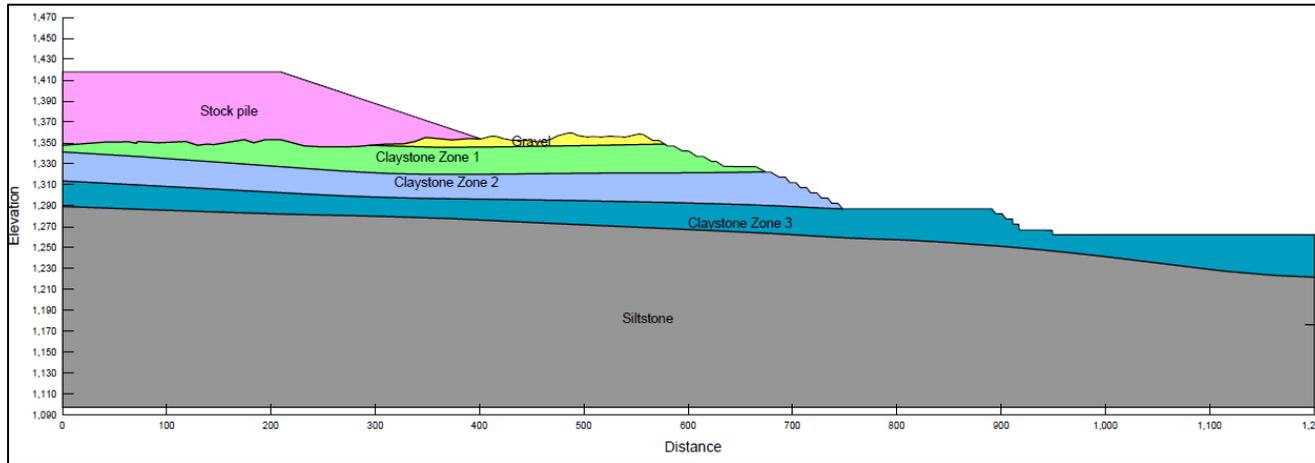
Note: Plot showing Atterberg Classification for claystone 1 (green) and claystone 2 (blue). CL = Clay; CH = High Plasticity Clay; ML = Silt; MH = High Plasticity Silt; OL = Organic Low Plasticity; OH = Organic High Plasticity.

### 16.2.3 Pit Slope Stability Analysis

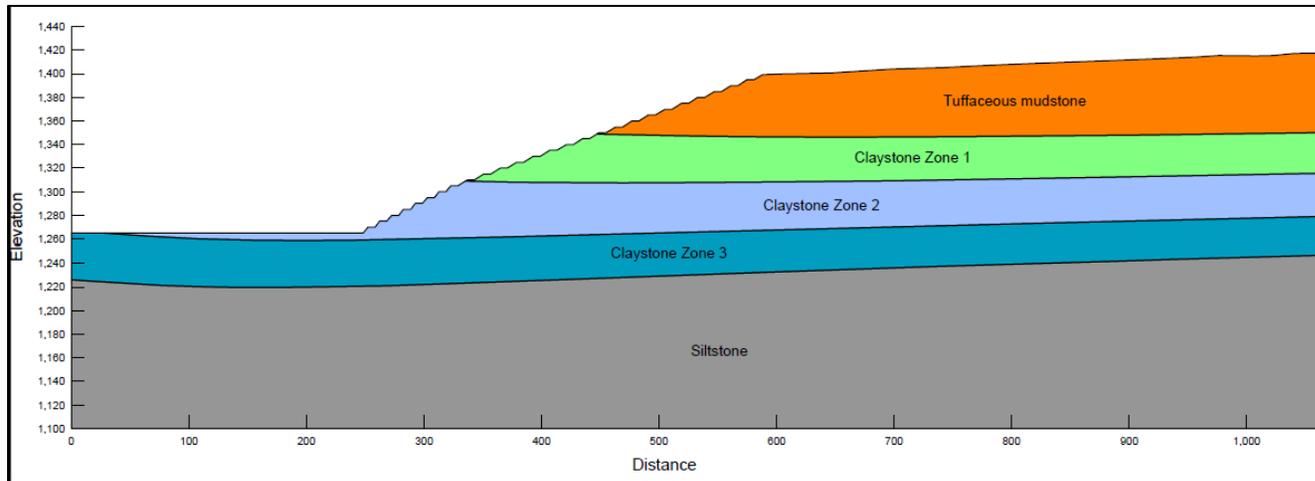
Slope stability cross-sections were developed for three locations in the final pit for this analysis. Cross-sections were selected to model the most critical section of the final pit. The term most critical is generally defined as the tallest and/or steepest section or having critical infrastructure in the vicinity that could be affected by or cause adverse loading on the pit wall (see Figure 16-4). Contact elevations between the different geological units were estimated using topography of the site, current pit design, and a Leapfrog 3D model of the geologic conditions at site that utilizes exploratory boreholes in the vicinity of the slope stability cross sections. Slope stability cross sections are shown on Figure 16-5 through Figure 16-7.



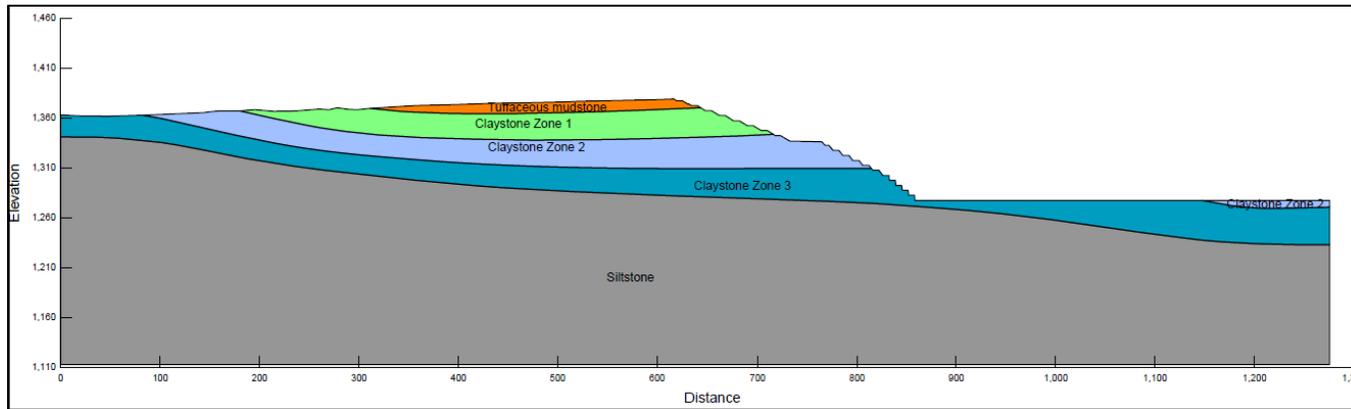
**Figure 16-4: General Stability Section Locations (Source: GRE, 2023)**



**Figure 16-5: General Pit Stability Cross Section A (Source: GRE, 2023)**



**Figure 16-6: General Pit Stability Cross Section B (Source: GRE, 2023)**

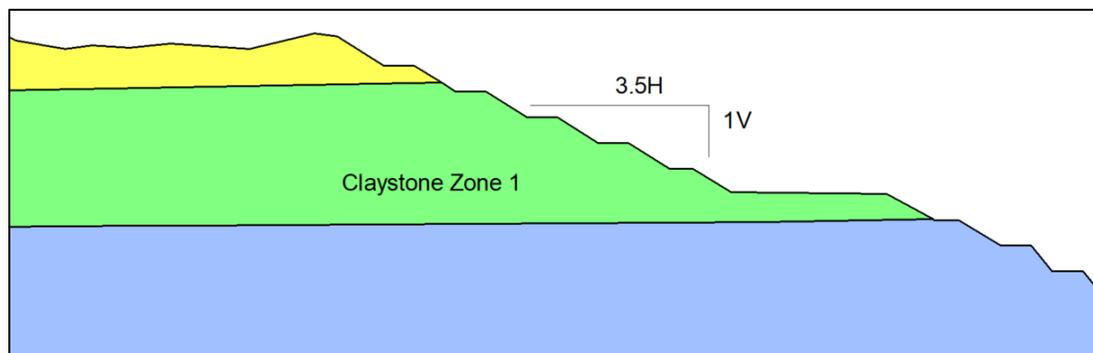


**Figure 16-7: General Pit Stability Cross Section C (Source: GRE, 2023)**

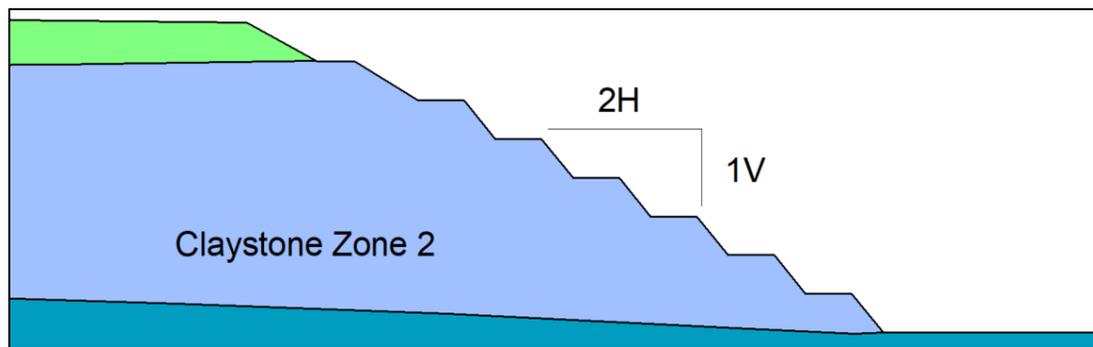
### 16.2.3.1 Pit Slope Determination

Slopes cut in the different material formations were initially selected during the analyses performed during the pre-feasibility phase in 2019. To obtain the final slope cut configuration, the SlopeW program was used to evaluate different slope angles until a static factor of safety of 1.5 was achieved for the steepest slope possible. The resulting cut slopes as determined from the analysis were:

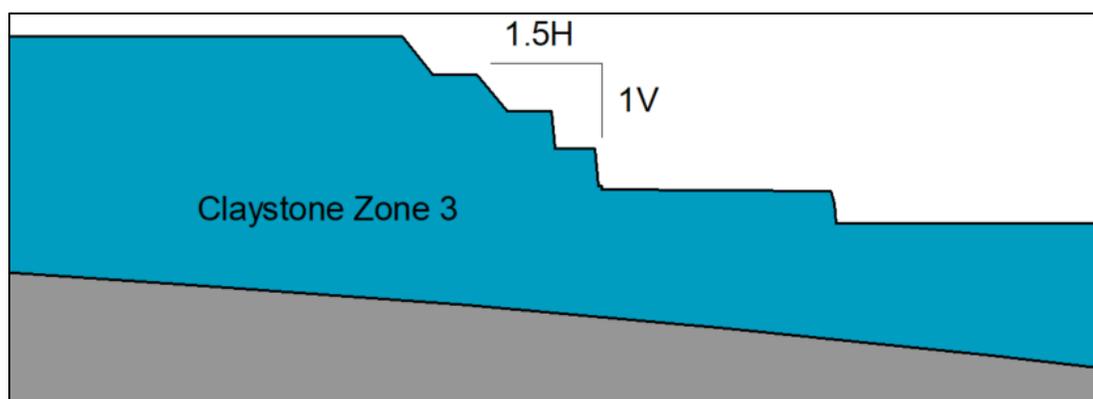
- claystone zone 1 - 3.5H:1V or 16.0° (Figure 16-8)
- claystone zone 2 - 2H:1V or 26,6° (Figure 16-9)
- claystone zone 3 - 1.5H:1V, or 33.7° (Figure 16-10).



**Figure 16-8: Claystone Zone 1 Slope Cut (Source: GRE, 2023)**



**Figure 16-9: Claystone Zone 2 Slope Cut (Source: GRE, 2023)**



**Figure 16-10: Claystone Zone 3 Slope Cut (Source: GRE, 2023)**

### 16.2.3.2 Material Properties Selection

Shear strengths of the claystone zones were modeled using the Mohr-Coulomb constitutive model which defines the shear strength of the soil in terms of cohesion ( $C'$ ) and internal friction ( $\phi'$ ) of the material type. The cohesion and internal friction were selected from the averaged values obtained from the direct shear and triaxial tests. The unit weights were averaged from the laboratory tests as well.

Material properties for the tuffaceous mudstone, surface gravel, (alluvium), and stockpile were chosen based on engineering judgment. These materials were not sampled; therefore, no strength properties were obtained from laboratory testing. The tuffaceous mudstone properties were assigned based on the similarities to the claystone zone 1 according to field geologist observations.

The gravel and stockpile materials were modeled utilizing the Leps criteria (Leps, 1970) to characterize the material properties. Taking into consideration that rockfill materials with large particle sizes cannot be tested in the laboratory, Thomas Leps studied strength of these types of rockfill materials and developed relationships based on large triaxial shear tests, relative density, gradation, particle crushing strength and particle shape. Leps provides three different classifications considering rock quality, these are; a) low density poorly graded, weak particles, b) average rockfill, and c) high density, well graded, strong particles. A low density poorly graded, weak particles Leps model (Leps Lower Bound) was used for both materials as a conservative way to assess the stabilities of the stockpiles. Material properties used in slope stability analyses are summarized in Table 16-4.

**Table 16-4: Pit Stability Material Strength Properties**

Material Type	Unit Weight (kN/m <sup>3</sup> )	Strength Model	C' (kPa)	φ' (°)
Claystone Zone 1	15	Mohr-Coulomb	67.95	25.5
Claystone Zone 2	13	Mohr-Coulomb	17.1	26.3
Claystone Zone 3	14	Mohr-Coulomb	288.4	15.0
Tuffaceous Mudstone	15	Mohr-Coulomb	67.95	25.5
Gravel (Alluvium)	13	Leps Lower Bound <sup>1</sup>	-	-
Stockpile	13	Leps Lower Bound <sup>1</sup>	-	-

Note: C' - Cohesion; φ' - Effective Friction Angle. <sup>1</sup> Leps (1970)

### 16.2.3.3 Slope Stability Analysis

Slope stability analyses were completed using the computer program SlopeW, part of the GeoStudio 2021.4 software suite, which enables the user to conduct limit equilibrium slope stability calculations by a variety of methods. Analyses were performed under static and pseudo-static loading conditions. This site has no shallow groundwater, and the pit design is above any natural aquifers; therefore, slope stability analyses do not include hydrostatic loading. However, the site is in a medium to high seismic zone with faulting identified in the vicinity of the Project. The resulting ground motion is 0.1375 g, and the full ground motion was applied as a horizontal force.

Six scenarios were run for each section for both static and pseudo-static loading:

1. Overall global stability, includes the entire slope.
2. Claystone zone 1 section general stability, includes the entire layer of material with entrance and exits in overlying and underlying material layers.
3. Claystone zone 1 section local stability, interbench slope stability in the unit.
4. Claystone zone 2 section general stability, includes the entire layer of material with entrance and exits in overlying and underlying material layers.
5. Claystone zone 2 section local stability, interbench slope stability in the unit.
6. Claystone zone 3 section local stability.

The selection of these scenarios was driven by the stratigraphy of the deposit and the changes in slope cuts to manage stability of the pit walls.

Accepted minimum factor of safety for static conditions is 1.3 and for pseudo-static conditions is 1.05 according to NDEP (2020). These values are also acceptable as an international standard and the static analysis for 1.3 is acceptable for construction and operation conditions. Slope stability results are summarized in Table 16-5 through Table 16-7 for the Sections A, B, and C, respectively.

**Table 16-5: Slope Stability Results Section A**

<b>Section A Results (Factor of Safety)</b>		
<b>Scenario</b>	<b>Static</b>	<b>Pseudostatic</b>
Global	1.8	1.8
Claystone Zone 1 (General)	3.2	1.8
Claystone Zone 1 (Local)	3.1	2.0
Claystone Zone 2 (General)	1.9	1.3
Claystone Zone 2 (Local)	1.6	1.2
Claystone Zone 3 (Local)	6.5	4.5

**Table 16-6: Slope Stability Results Section B**

<b>Section B Results (Factor of Safety)</b>		
<b>Scenario</b>	<b>Static</b>	<b>Pseudostatic</b>
Global	1.6	1.1
Tuffaceous Mudstone	2.5	1.7
Claystone Zone 1 (General)	1.9	1.3
Claystone Zone 1 (Local)	2.4	1.7
Claystone Zone 2 (General)	1.6	1.1
Claystone Zone 2 (Local)	1.5	1.1

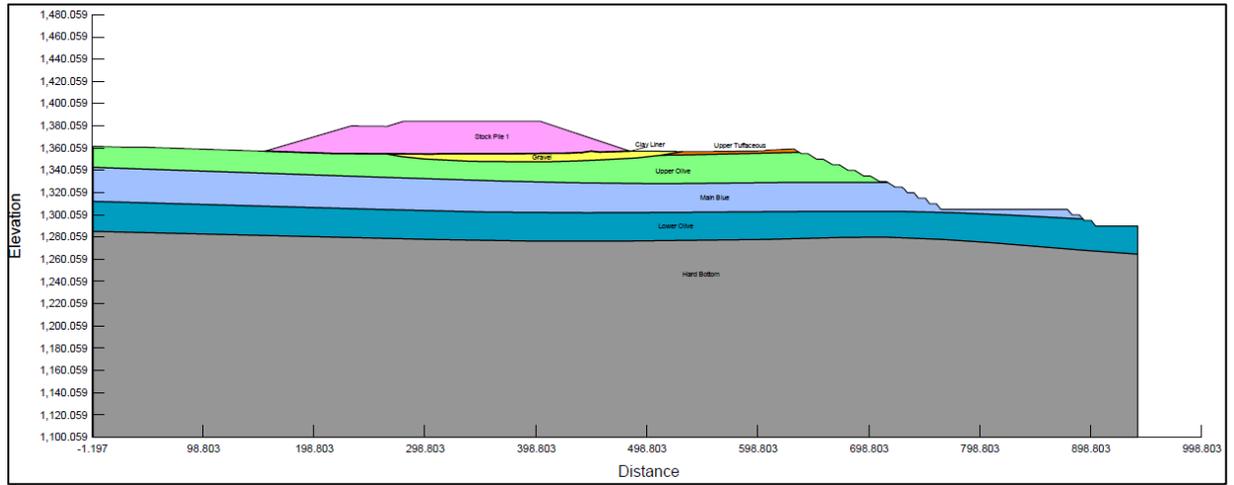
**Table 16-7: Slope Stability Results Section C**

<b>Section C Results (Factor of Safety)</b>		
<b>Scenario</b>	<b>Static</b>	<b>Pseudostatic</b>
Global	2.3	1.6
Claystone Zone 1 (Local)	2.4	1.7
Claystone Zone 2 (General)	1.9	1.3
Claystone Zone 2 (Local)	1.6	1.2
Claystone Zone 3 (General)	2.3	1.6
Claystone Zone 3 (Local)	5.8	4.6

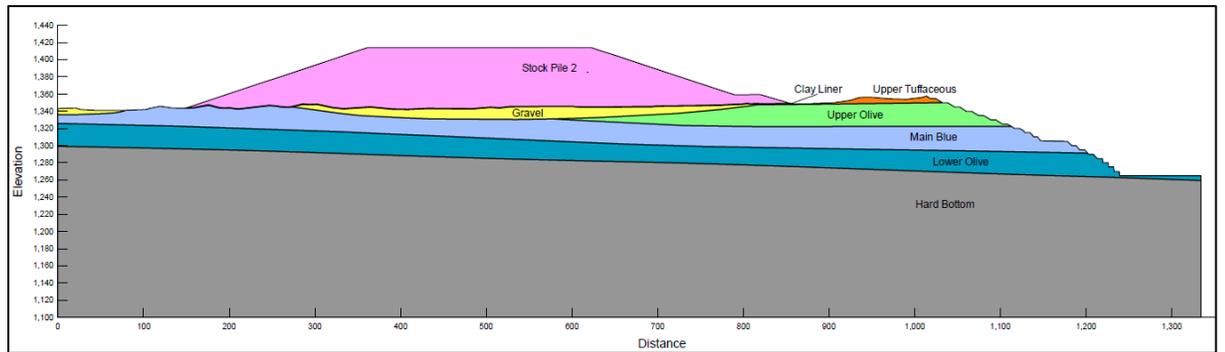
In general, the results of the analyses indicate compliance with adopted minimum factors of safety for slopes when modeled with Mohr-Coulomb and Leps Lower Bound parameters.

#### **16.2.4 Stockpiles Slope Stability Analysis**

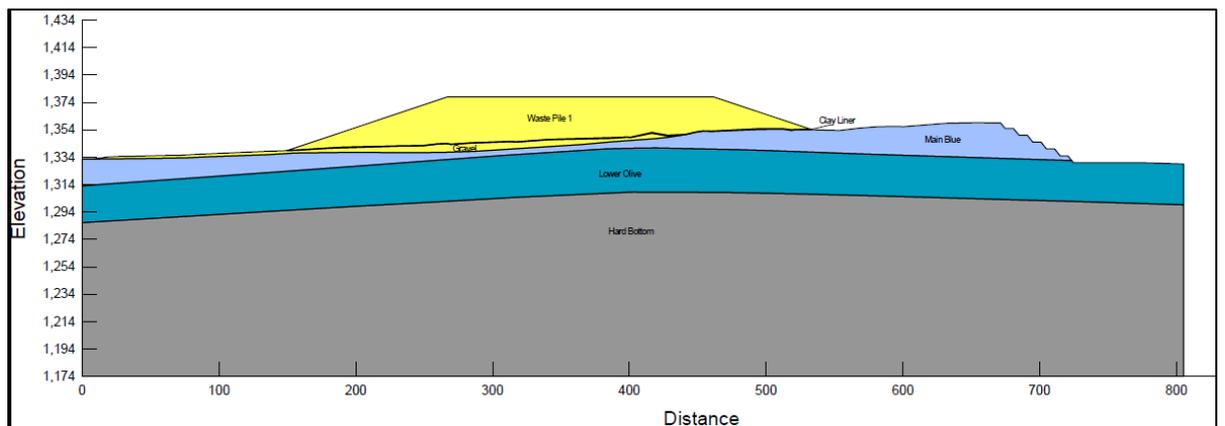
Slope stability cross-sections were developed for the low grade stockpiles and WRSFs for this analysis. Cross sections for each were selected to model the the tallest and/or steepest section or having critical infrastructure in the vicinity that could be affected by a slope failure of the structures (Figure 16-4). Contact elevations between the different lithology units were estimated using topography of the site, current pit design, and a Leapfrog 3D model of the geologic conditions utilizing exploratory boreholes in the vicinity of the slope stability cross-sections. Slope stability cross-sections are shown on Figure 16-11 through Figure 16-14.



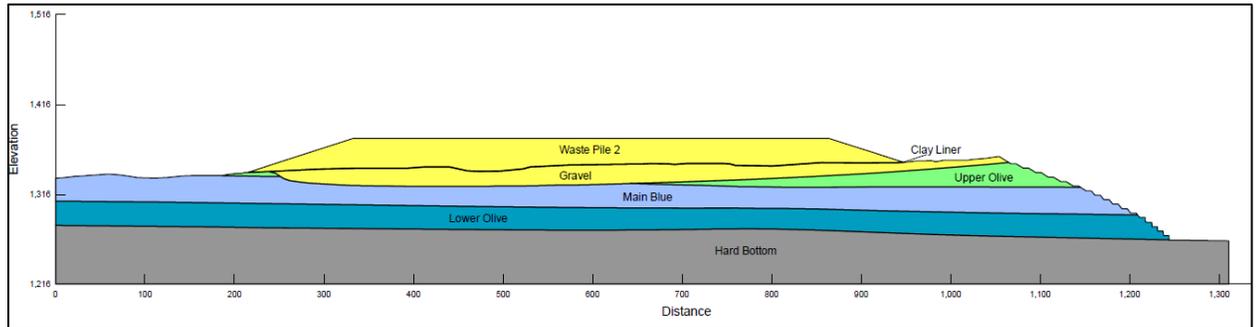
**Figure 16-11: Low Grade Stockpile 1 Stability Cross-section (Source: GRE, 2023)**



**Figure 16-12: Low Grade Stockpile 2 Stability Cross-section (Source: GRE, 2023)**



**Figure 16-13: WRSF 1 Stability Cross-section (Source: GRE, 2023)**



**Figure 16-14: WRSF 2 Stability Cross-section (Source: GRE, 2023)**

The slope stability analysis procedure and conditions used were the same as for the pit slope stability sections. Four scenarios were run for each section for both static and pseudo-static loading:

1. Overall static global stability right side (towards the pit), includes the entire slope.
2. Overall global stability left side, includes the entire slope.
3. Overall static global stability with clay liner right side (towards the pit), includes the entire slope.
4. Overall global stability with clay liner left side, includes the entire slope.

Accepted minimum factor of safety for static conditions is 1.3 and for pseudo-static conditions is 1.05 according to NDEP (2020). These values are also acceptable as an international standard and the static analysis for 1.3 is acceptable for construction and operation conditions. Slope stability results are summarized in Table 16-8 through Table 16-11 for the low-grade stockpiles and WRSFs without and with clay liner.

**Table 16-8: Slope Stability Results Low Grade Stockpiles**

<b>Low Grade Stockpiles Results (Factor of Safety)</b>		
<b>Scenario</b>	<b>Static</b>	<b>Pseudostatic</b>
Global Low Grade Stockpile 1 Right	2.94	2.00
Global Low Grade Stockpile 1 Left	3.34	2.20
Global Low Grade Stockpile 2 Right	2.79	1.90
Global Low Grade Stockpile 2 Left	2.25	1.52

**Table 16-9: Slope Stability Results WRSFs**

<b>WRSFs Results (Factor of Safety)</b>		
<b>Scenario</b>	<b>Static</b>	<b>Pseudostatic</b>
Global WRSF 1 Right	2.60	1.75
Global WRSF 1 Left	2.44	1.65
Global WRSF 2 Right	3.05	2.05
Global WRSF 2 Left	2.77	1.81

**Table 16-10: Slope Stability Results Low Grade Stockpiles with Clay Liner**

<b>Low Grade Stockpiles with Clay Liner Results (Factor of Safety)</b>		
<b>Scenario</b>	<b>Static</b>	<b>Pseudostatic</b>
Global Low Grade Stockpile 1 Right	2.39	1.65
Global Low Grade Stockpile 1 Left	2.78	1.82
Global Low Grade Stockpile 2 Right	2.79	1.90
Global Low Grade Stockpile 2 Left	2.19	1.48

**Table 16-11: Slope Stability Results WRSFs with Clay Liners**

<b>WRSFs with Clay Liners Results (Factor of Safety)</b>		
<b>Scenario</b>	<b>Static</b>	<b>Pseudostatic</b>
Global WRSF 1 Right	2.59	1.74
Global WRSF 1 Left	2.43	1.64
Global WRSF 2 Right	2.59	1.70
Global WRSF 2 Left	2.77	1.80

In general, the results of the analyses indicate compliance with adopted minimum factors of safety for slopes when modeled with Mohr-Coulomb and Leps Lower Bound parameters.

## 16.3 Dilution

QP Lane believes the resource is adequately diluted based on the compositing method, estimation method, and selectivity by mining slices 30-46 cm thick.

## 16.4 Waste Rock Storage Facilities and Low-Grade Stockpiles

The WRSFs and low-grade stockpiles have been designed with an overall 3H:1V sidewall slopes, which is conservative for the materials present in the waste and low-grade materials. Designed capacities for each of the waste facilities and stockpiles are shown in Table 16-12.

**Table 16-12: Waste Facility and Stockpile Capacities**

<b>Facility</b>	<b>Tonnage (kt)</b>
WRSF 1	5,352
WRSF 2	4,566
Low grade stockpile 1	2,643
Low grade stockpile 2	26,404

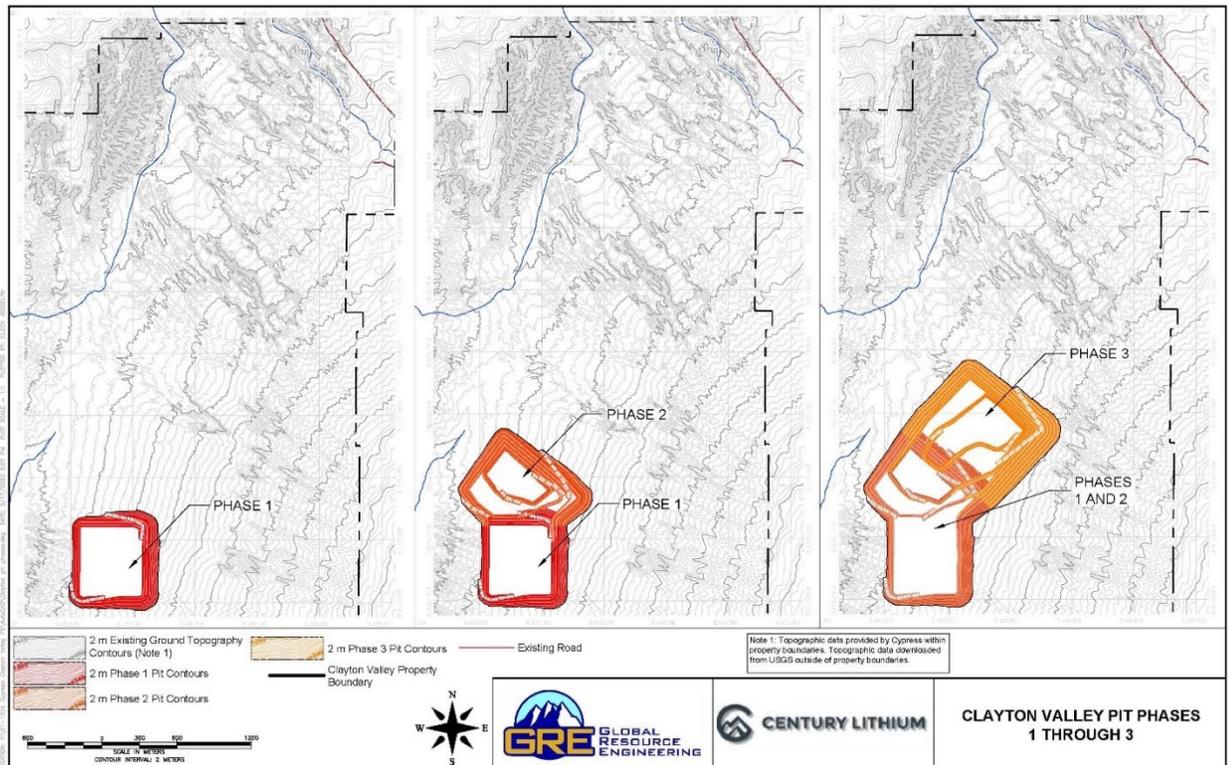
## 16.5 Mine Plan

### 16.5.1 Pit Design

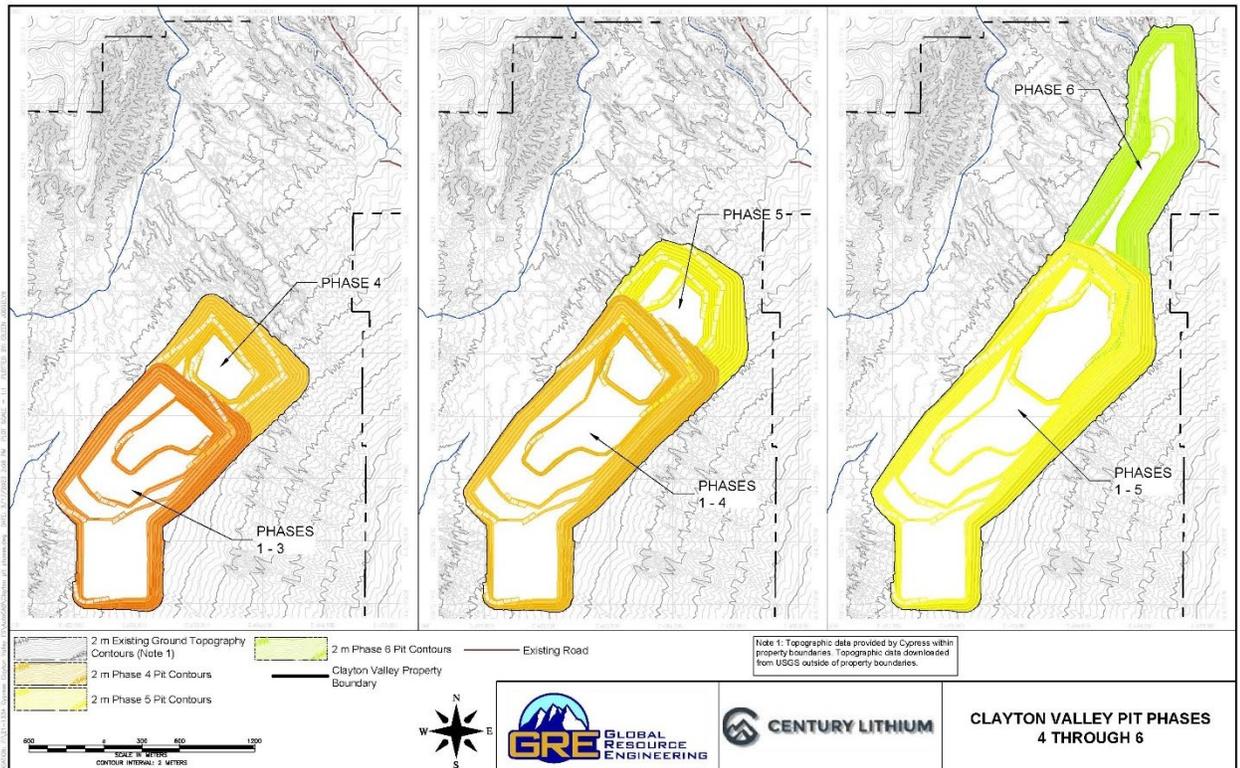
A final pit shell was used to limit the mine plan and was generated using the variable pit slope angles discussed in Section 16.1.3. The bench height and width were set at 5 m and 6 m, respectively based on operating equipment reach and minimum road width. In-pit haul roads were designed with maximum grades of 8%.

Within the final pit shell, six pit phases were generated. At the design nominal production rate of 7,500 t/d for years one through four, 15,000 t/d for the remainder of the Project, the mine life represented by these six pit phases is approximately 60 years, and yields the Mineral Reserves described in Section 15.

The six pit phases are illustrated in Figure 16-15 and Figure 16-16.



**Figure 16-15: Pit Phases 1 through 3 (Source: GRE, 2023)**



**Figure 16-16: Pit Phases 4 through 6 (Source: GRE, 2023)**

## 16.5.2 Mine Equipment

Within each pit phase, ore, low-grade material, overburden, and waste material will be removed using CAT 6020B or equivalent hydraulic shovels and CAT 777 haul trucks with a nominal waste removal rate of 317 t/h.

Low-grade material will be direct loaded onto haul trucks and directed to low-grade stockpile facilities or other facilities for use as compacted liner material.

Overburden and waste material will be direct loaded onto haul trucks and directed to WRSFs.

Ore will be initially ripped and placed into wind-rows within the pit for drying for several days. After drying, the ore will be loaded into haul trucks and directed to the processing plant.

This mining method, using a hydraulic shovel combined with truck haulage, has low operating costs and requires minimal support equipment.

Mine production equipment consists of the following:

- one CAT D10T dozer (or equivalent)
- up to three CAT 6020B hydraulic shovels (or equivalent)
- up to 17 CAT 777 haul trucks (or equivalent)

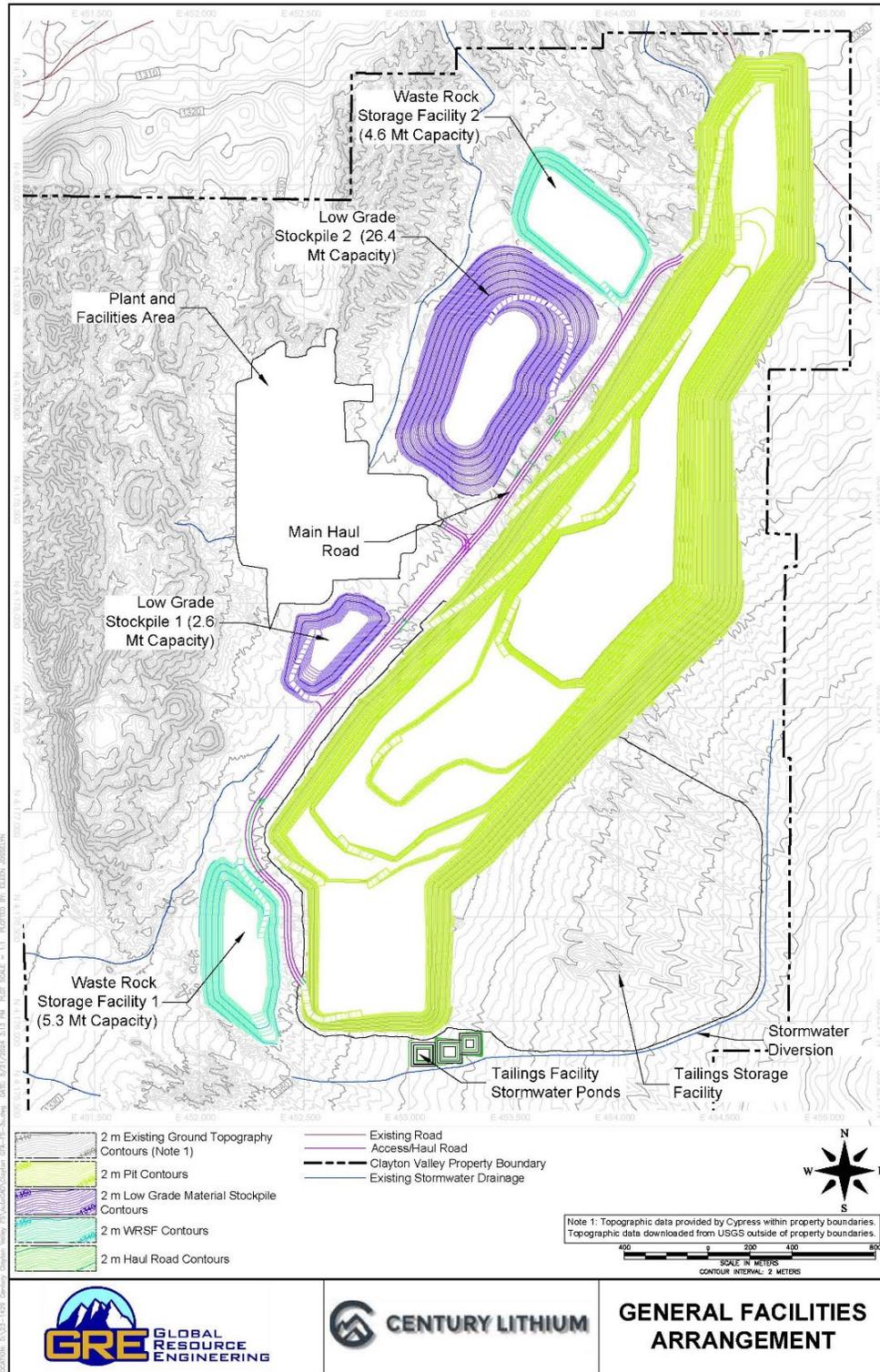
Mining support equipment consists of the following:

- one CAT D10T or equivalent dozer
- one CAT D6 or equivalent dozer
- one CAT 320C or equivalent excavator
- two CAT 745 articulated haul trucks
- one 14-foot-blade width grader
- one 10,000-gallon water truck
- two CAT CP56B or equivalent sheeps-foot compactors
- one service/tire truck
- one fuel/lube truck
- 10 light stands
- three dewatering pumps
- 9 pickup trucks.

The dozers and support equipment will also provide road and yard maintenance as needed.

### **16.5.3 Site Arrangement**

The mining-related facility arrangement including low grade stockpiles, WRSFs, and haul roads is shown on Figure 16-17.



**Figure 16-17: Mining-Related General Facilities Arrangement (Source: GRE, 2024)**

## 16.6 Mine Production Schedule

The distribution of material is shown by pit phase in Table 16-13. Mining will progress from the southwest where mineralized clays outcrop, to the northeast, where high-grade clays dip underneath low-grade and waste materials. This approach in scheduling results in limited handling of low-grade and waste material early in the project life.

**Table 16-13: Production by Pit Phase**

Phase	Mill Feed Tonnes (millions)	Li Contained Tonnes (millions)	Li Grade (ppm)	Low Grade Tonnes (millions)	Waste Tonnes (millions)	Stripping Ratio
1	21.79	0.024	1,115	0.01	0.57	0.03
2	21.52	0.026	1,213	0.00	5.76	0.27
3	52.70	0.061	1,166	3.28	4.91	0.16
4	57.65	0.066	1,139	10.43	6.17	0.29
5	59.45	0.068	1,137	13.59	3.39	0.29
6	74.54	0.085	1,146	9.68	1.86	0.15
<b>Total</b>	<b>287.65</b>	<b>0.33</b>	<b>1,149</b>	<b>37.00</b>	<b>22.66</b>	<b>0.21</b>

Pre-stripping of waste is conducted if there is no mill feed present on a bench or if the amount of waste on any bench exceeds 10 times the amount of mill feed on that bench.

For all other benches, all waste and low-grade material on a bench is scheduled to be mined over the same duration as the mill feed on that bench. The schedule was adjusted to smooth equipment requirements in periods with high pre-stripping, waste, or low-grade material production and generate an efficient production schedule.

### 16.6.1 Mine Operation

The mining schedule was generated by pit phase and bench. The following parameters were used to generate the mine production schedule.

- Process production rate: 7,500 t/d for years 1 through 4  
15,000 t/d for the remainder of the Project
- Mine operating days/week: 7
- Mine operating weeks/year: 52
- Mine operating shifts/day: 2
- Mine operating hours/shift: 10

A summary of the production schedule is shown in Table 16-14 and Figure 16-18.

### **16.6.2 Mine Roads**

Haul roads were designed with a total width of 30 m with a maximum 8% grade. Traffic will be limited to haul trucks, light equipment carrying operators, maintenance personnel and occasional tracked vehicles. Trucks and loaders will be used to remove waste material. The mine road is sufficiently wide to easily accommodate future equipment and the widest pieces of equipment on site. A ditch and berm are provided. The berm can be constructed out of compacted claystone.

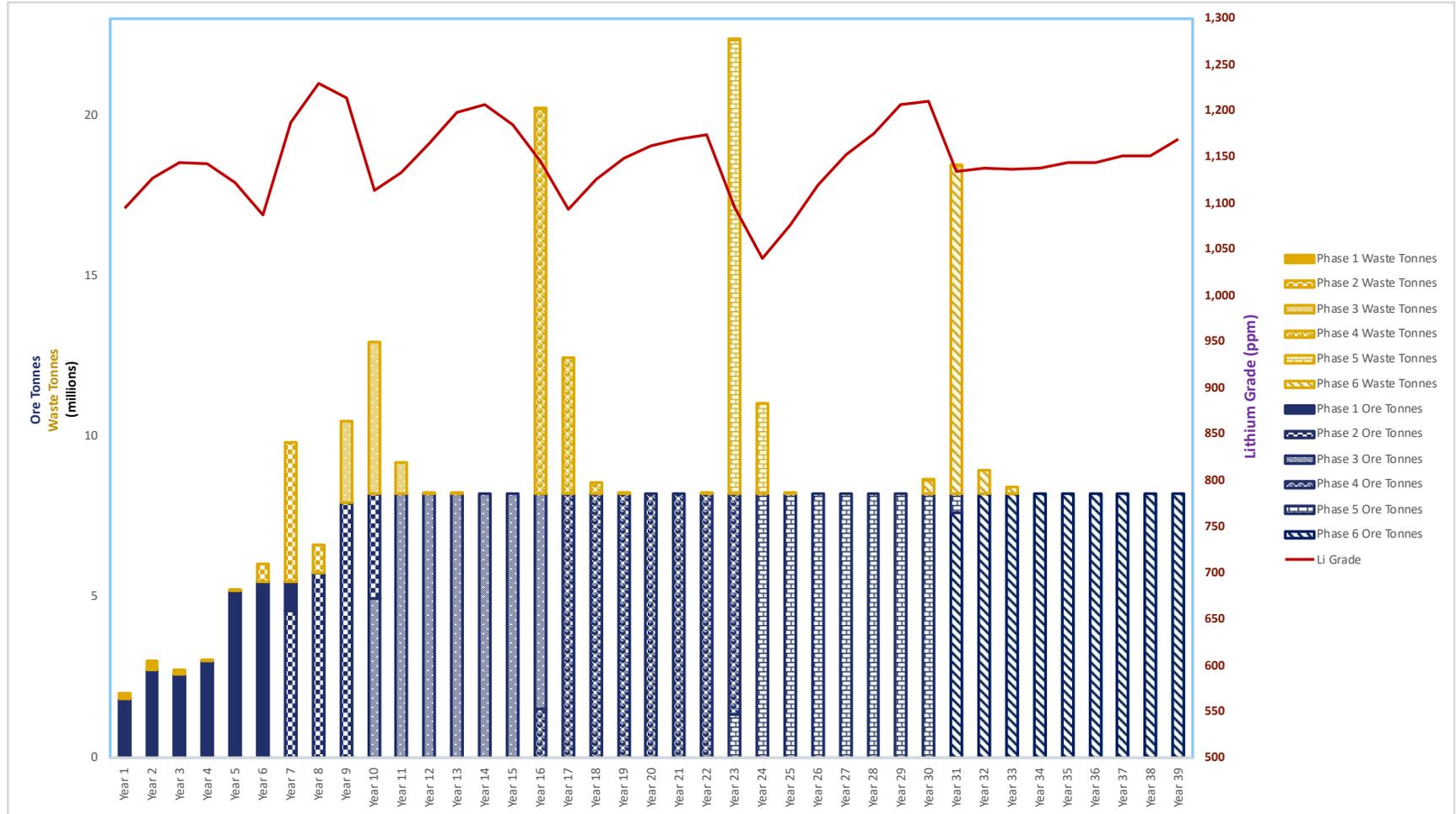
### **16.7 Pit Backfill**

Waste material will be used to backfill pit phases 1 through 5 to provide a suitable surface for placement of the TSF liner. Some of the waste material will be directly transferred from the mining operation to the backfilling operation. Other waste material will be temporarily stored along the pit crest for easy placement into the pit phase as it becomes available for backfilling. All waste material placed into WRSF2 is planned to be used for backfilling the pit phases, and approximately 1/3 of the waste material in WRSF1 will be used as backfill in the pit phases.

**Table 16-14: Mine Schedule**

Pit Phase	YR 1	YR 2	YR 3	YR 4	YR 5	YR 6	YR 7	YR 8	YR 9	YR 10	YR 11	YR 12	YR 13	YR 14	YR 15	YR 16	YR 17	YR 18	YR 19	YR 20
<b>Reserve Ore Tonnes (millions)</b>																				
1	1.85	2.74	2.60	3.02	5.19	5.48	0.91													
2							4.57	5.76	7.93	3.27										
3									0.00	4.95	8.21	8.21	8.21	8.21	8.21	6.69				
4																1.52	8.21	8.21	8.21	8.21
5																				
6																				
<b>Waste Tonnes (Low Grade, Inferred, and Other Waste Material) (millions)</b>																				
1	0.14	0.27	0.13	0.04	0.00															
2						0.56	4.35	0.86												
3									2.53	4.70	0.96	0.01	0.00			0.00				
4																11.97	4.22	0.34	0.02	
5																				
6																				
<b>Reserve Li (million tonnes)</b>																				
1	0.002	0.003	0.003	0.003	0.006	0.006	0.001													
2							0.006	0.007	0.010	0.004										
3									0.000	0.005	0.009	0.010	0.010	0.010	0.010	0.008				
4																0.002	0.009	0.009	0.009	0.010
5																				
6																				
<b>Reserve Li Grade (ppm)</b>																				
1	1,094	1,127	1,144	1,143	1,122	1,087	1,068													
2							1,211	1,229	1,214	1,183										
3									952	1,068	1,132	1,164	1,198	1,207	1,184	1,169				
4																1,043	1,093	1,126	1,148	1,161
5																				
6																				

Pit Phase	YR 21	YR 22	YR 23	YR 24	YR 25	YR 26	YR 27	YR 28	YR 29	YR 30	YR 31	YR 32	YR 33	YR 34	YR 35	YR 36	YR 37	YR 38	YR 39	YR 40	Total
<b>Reserve Ore Tonnes (millions)</b>																					
1																					21.79
2																					21.52
3																					52.70
4	8.21	8.21	6.85																		57.65
5			1.36	8.21	8.21	8.21	8.21	8.21	8.21	8.21	0.60										59.45
6											7.61	8.21	8.21	8.21	8.21	8.21	8.21	8.21	8.21	1.24	74.54
<b>Waste Tonnes (Low Grade, Inferred, and Other Waste Material) (millions)</b>																					
1																					0.59
2																					5.76
3																					8.20
4		0.03	0.01																		16.59
5			14.12	2.81	0.04					0.01	0.00										16.98
6										0.41	10.20	0.74	0.21								11.55
<b>Reserve Li (million tonnes)</b>																					
1																					0.024
2																					0.026
3																					0.061
4	0.010	0.010	0.008																		0.066
5			0.001	0.009	0.009	0.009	0.009	0.010	0.010	0.010	0.001										0.068
6											0.009	0.009	0.009	0.009	0.009	0.009	0.009	0.009	0.010	0.001	0.085
<b>Reserve Li Grade (ppm)</b>																					
1																					1,115
2																					1,213
3																					1,166
4	1,169	1,174	1,114																		1,139
5			1,006	1,040	1,076	1,120	1,153	1,176	1,206	1,210	1,176										1,137
6											1,131	1,138	1,137	1,138	1,144	1,144	1,151	1,151	1,169	1,188	1,146



**Figure 16-188: Mine Schedule (Source: GRE, 2024)**

## 17.0 RECOVERY METHODS

The Mineral Resource at the Angel Island deposit is flat lying, clay hosted ore body with relatively uniform lithium grade throughout. The claystone typically consists of 25% smectite clays and 60% illite clays with the remaining being micas, quartz, and feldspars.

The ore will be processed using attrition scrubbing for comminution, leaching, filtration, deleterious element precipitation, DLE, lithium carbonate precipitation and drying. A chlor-alkali facility will allow for recycle of hydrochloric acid and sodium hydroxide used in the plant processes. Water recycling is also of primary concern in the facility. This section outlines the major design criteria and describes the unit processes of the flowsheet.

### 17.1 Flowsheet Development

Mr. Todd Fayram completed the design for the process plant and related infrastructure facilities for this FS using methods developed at the Amargosa Valley Pilot Plant.

The design capacity is developed for an initial ore throughput of 7,500 t/d for the first four years and 15,000 t/d thereafter.

The extremely fine-grained clays exhibiting virtually no cohesive forces when made wet allow a conventional attrition scrubber to be used for comminution. The ore will be trucked from the mine to the ROM pad where the ore will be crushed in a roll crusher and transferred to a covered stacker/reclaimer. The crushed ore will be reclaimed and mixed with pH=11.0 water in the attrition scrubber to break the particles down to their interstitial particle size averaging approximately 5 to 10-microns in size. The ground ore slurry will be leached at pH -0.7 pH units using hydrochloric acid at 70°C. The leached slurry will be fed to a precipitation tank where sodium hydroxide and air are added to pH 7.5. The slurry with the precipitated deleterious elements as solids is pumped to a plate and frame filter where the lithium bearing solution is extracted from the pulp and the solids are conveyed to tails. The liquid extractant is filtered with ultrafiltration and sent to DLE. The DLE eluate at 600 ppm lithium is pumped to reverse osmosis to remove water and then processed to make lithium carbonate. The DLE raffinate is sent to high pH precipitation to remove calcium and magnesium, then either sent to chlor-alkali or recirculated back to precipitation.

The chlor-alkali facility will be designed to produce approximately 450t of chlorine per day and 400 t of sodium hydroxide per day. High purity salt will be added to the incoming low-grade raffinate, as necessary, to ensure proper grade to the CA circuit. The CA plant will consist of INEOS electrolyzer and a small hydrogen electrolyzer unit. The spent raffinate will be sent back to the plant as process water.

Lithium carbonate production consists of standard lithium carbonate precipitation using sodium carbonate with subsequent washing. Conversion rates approaching 94% have been identified based on 101 °C precipitation.

Tailings and precipitate from the plant facilities will be dry stacked and placed in a lined facility at pH 7.5 and meets all acid-base accounting (ABA) testing requirements showing the tailings are non-acid producing that will ultimately allow for the pit to be partially backfilled.

A simplified overall process flowsheet is shown in Figure 17-1.

## 17.2 Process Design Basis and Criteria

The process design is supported by the test work and results discussed in Section 13. The process plant design is based on maximizing the use of the chlor-alkali plant, and infrastructure limitations related to water and power availability. The process design focused on Project Phase 1 which was based on a plant capacity of 7,500 t/d, yielding an estimated 35.5 t/d of lithium carbonate.

Key parameters for the process design for Project Phase 1 and 2 are listed in Table 17-1.

**Table 17-1: Process Design Basis**

Design Parameter	Units	Project Phase 1	Project Phase 2
Nominal processing rate	t/d	7,500	15,000
Annual processing rate	t/y	2,737,500	5,475,000
Plant availability	%	92	92
ROM feed moisture	%	20	20
Processing plant feed rate (dry)	t/h	340	680
Leach circuit			
Temperature	°C	70	70
Retention time	h	4	4
Number of tanks/trains	units	2 / 1	2 / 2
Acid consumption (% weight of feed)	%	6	6
Filtration circuit			
Number of filters	units	6	12
Filtrate cake water content	weight%	35	35
PLS to lithium recovery	m <sup>3</sup> /h	1,041	2,083
Lithium solution feed to RO	m <sup>3</sup> /h	99	198
Solution feed to chlor-alkali plant	m <sup>3</sup> /h	1,130	2,260
Lithium carbonate production	t/d	35.6	71.2
Lithium balance			
Average lithium grade in feed material	%	0.113	0.113

<b>Design Parameter</b>	<b>Units</b>	<b>Project Phase 1</b>	<b>Project Phase 2</b>
Lithium Leach Extraction	%	95	95
Overall Lithium Recovery	%	84	84
Water Balance			
Total make-up water	m <sup>3</sup> /h	36.3	73.2

The process flowsheet described herein has been developed and refined based on pilot-scale operations and supporting metallurgical test work conducted over multiple years. While further optimization is expected as the Project advances, the flowsheet is considered technically viable and appropriate for use in the economic evaluations presented in this Report.

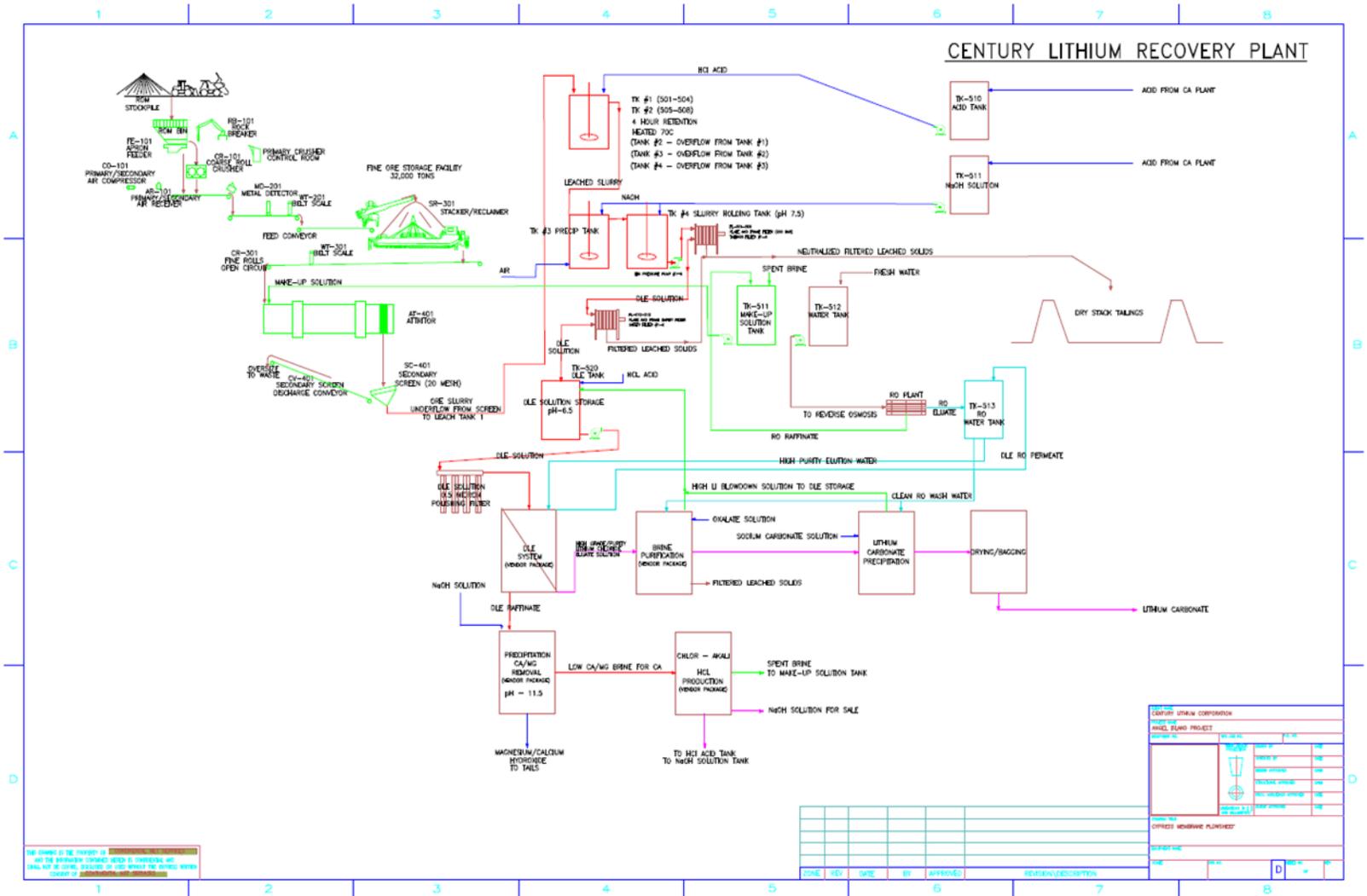


Figure 17-1: Schematic Block Flow Diagram (Source: CMS, 2025)

## 17.3 Process Plant Description

Elements described in following are protected under patent application by the Company.

### 17.3.1 Ore Receiving and Storage

ROM ore will be trucked from the mine to the ROM stockpile adjacent to the processing plant. There will be a low-grade stockpile near the ROM stockpile. The ore mining rate is matched to the ore processing rate (7,500 t/d) and availability of a 30,000-ton stockpile at the stacker reclaimer. Run-off water will be collected, contained and sent to the fresh water tank.

**Table 17-2: Process Design Basis (Ore Grade)**

Design Parameter	Units	Value
Low Grade	%Li	0.095
Run of Mine Ore	%Li	0.1148

The loader will feed ROM claystone ore to a 60-t capacity feed hopper that feeds ore to a 24-in diameter x 48-in double roll crusher. The ore is crushed to minus 4-in pieces, sufficiently small to be effectively processed downstream. A rock breaker above the rolls will clear oversized chokes and assist with flow through the roll crusher when necessary.

Ore will be drawn from the side of the feed hopper by a variable speed 4-ft x 25-ft FL4 McLanahan apron feeder, which will feed directly past a metal detector and to the ore stacker and 30,000-ton covered ore stockpile.

A stockpile reclaimer with a capacity to reclaim 750 tons of ore per hour will convey the ore to an attrition scrubber for final comminution. The reclaim feeder belt will be equipped with a weightometer and totalizer.

Dust control areas will be identified, and hood and baghouse will be used to control fugitive dust.

### 17.3.2 Attrition Scrubbing

The ROM ore has a 5- to 10-micron interstitial particle size that readily separates to a 5- to 10-micron based particle size in solution, liberating the entire clay particle crystalline structure. The crushed ore will be mixed with high pH mill process water at 33% solids by weight and mixed in a 10-ft diameter x 30-ft long McLanahan horizontal attrition scrubber with 350 installed horsepower. The scrubber will mix the ore into a slurry and attrition the ore to its interstitial particle size. The scrubber is made of a fabricated ¾-in steel shell with HARDOX bolt in liners. The grate discharge will consist of 1" screen that will allow for discharge of the slurry to a 12-ft wide x 20-ft long McLanahan SD Horizontal screen consisting of 1-mm screens. The underflow

slurry will gravity feed to the first leach tank. Sprays located over the screen will wash fine material off of the coarse oversize material before discharge to a conveyor belt that delivers oversize to the tailings belt.

### **17.3.3 Leaching**

The sized claystone slurry from the previous attrition scrubbing plant will deliver steady-state feed to the leach circuit, enabling efficiency gains through optimized clay size, leach residence time, temperature profile, and reagent control practices.

Sized claystone underflow from the minus -1-mm screen is fed directly into the first of two equally sized leach tanks. The covered and rubber lined leach tanks are each 10-m tall by 10-m in diameter, each with a titanium agitator operating at 300 rotations per minute (rpm).

Leach solution is heated to 70°C in the first tank but is not heated in the second tank. Shell and tube heat exchangers use oil as the heat transfer medium and also act as baffles within the tanks, therewith improving agitation. The leach tanks are insulated to minimize heat loss.

Acid is added to the claystone leach slurry to maintain a pH of minus 0.7 pH units. (see Section 13.2.2 for a review of low pH concentrations) A concentration of 37% hydrochloric acid (HCl) is consistently added at a rate of approximately 4.8% of the solids weight or 6% of the solution weight resulting in a consistent addition of approximately 96 to 110 kilograms of HCl acid per ton of ore. Acid usage varies slightly with carbonate concentration within the ore.

Leach slurry from the first leach tank flows by gravity into the second leach tank on a continuous basis. The volume of the first and second tanks combined, allow for a 4-hour leach residence time. Lithium leach extraction from the claystones is estimated at 90%; however, after all solution losses, leach extraction is estimated at 84%..

Gas collected above the leach tanks will be passed through a water bath to remove acid vapor(s). Condensed acid vapor in the water bath will be used for lithium carbonate recovery, calcium/magnesium precipitation, or discharged.

Slurry discharged from the leach tanks is directed by gravity into the precipitation tank. Approximately 25% to 35% of the solids subjected to leaching are dissolved into the leach solution by this point. The lithium grade in the enriched leach solution is estimated to be 280 to 320 ppm lithium depending on final leach percent solids in solution. The precipitation overflow slurry temperature is estimated at 35°C.

### **17.3.4 Precipitation**

Precipitation of deleterious elements will be carried out in a baffled 10-m tall by 10-m diameter rubber lined tank with titanium agitators operating at 300 rpm. Precipitation will occur by maintaining a pH of 7.5 using a 50% sodium hydroxide solution for approximately two hours of retention time. The estimated sodium hydroxide usage by weight is approximately 2.2% of the solids weight in the tank. Air is added into the agitated tank to convert (oxidize) ferrous to

ferric iron. Because lithium is soluble across all pH ranges up to pH 12.5, the precipitating elements such as aluminum hydroxide and iron hydroxide are readily removed with the tailings. Typically, most elements other than alkali earth elements, calcium, and magnesium precipitate as a hydroxide or oxide within the leached pulp. The slurry is allowed to overflow into the filtration tank.

### **17.3.5 Tailings Filtration**

After precipitation, the solution from leach slurry needs to be recovered. Significant solid/liquid separation work was completed to maximize removal of solution from the leach tailings solids. Six plate and frame filters with 215 plates each will be required. The plate size on all filter frames is 2.5-m x 2.5-m. The plates are membrane pressure plates that can be squeezed to 25 bar. The filters will discharge solids automatically through drip trays to a conveyor that will feed a main conveyor for discharge at the tailings facility. The percent solution is expected to be under 30%.

Each filter will be part of an automated system that includes auto discharge, auto washing, and automatic filling. The solution extracted during tailings filtration (designated "direct lithium extractant" (DLE) will be pumped through a plate and frame safety filter to and directly to the DLE solution storage tank in the lithium recovery section. Lithium recovery at this point will approach 84% when maintaining percent solution in the tailings under 30%.

### **17.3.6 Direct Lithium Solution Clarification**

Cloudy DLE solution containing approximately 10 ppm suspended solids will be pumped from the initial DLE solution tank to a 0.5-micron ultrafiltration unit. The ultrafiltration system consists of 5 modules each filtering approximately 520 gallons per minute (gpm). The filter system consists of dosing and cleaning units as necessary. Each unit consists of 40 DOW InterPac IPD-77 modules. Modules can be added as the quantity of solution increases. The ultrafiltered solution being designated as final DLE solution.

Final DLE solution (now having passed the filtration stages) will then be pumped at a rate of approximately 4,500 to 5,000 gallons per minute through 2 of 4 8-in x 8-in rubber lined centrifugal pumps to the main DLE solution feed tank. Acid will be dosed into the solution pipeline to lower the pH to 6.5 for optimal lithium extraction.

The final polished DLE solution will be pumped directly to the ARi simulated moving bed extraction system.

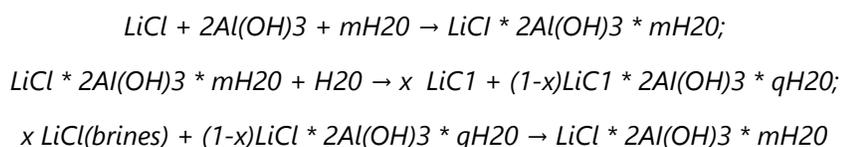
### **17.3.7 Direct Lithium Extraction**

The purpose of the DLE circuit is to purify and concentrate lithium in the solution for lithium carbonate precipitation. The DLE process is continuous, with an overall runtime availability designed to be greater than 92% per year. The DLE facility has been designed to process 4,500

to 5,000 gpm of DLE solution at a lithium grade ranging from 250 ppm to 350 ppm. DLE lithium recovery is estimated to be 98%. The small fraction of unprecipitated lithium in the raffinate is recycled to the leach circuit. The plant will be designed to easily add additional modules of similar capacity as the plant size grows.

The following equations describe the DLE stage chemistry. These processes can be described by the following scheme (based on work by Isupov and Nemudry):

*“The disordered aluminum hydroxide and the chloride of the double hydroxide of lithium and aluminum (LADH-C1) synthesized on the basis of the former species are capable of extraction lithium selectively from complex salt chloride systems while the well crystalline compounds possess these properties to a lesser extent. The formation of LADH-C1 from aluminum hydroxide desorption and sorption of lithium chloride are connected with the processes of its intercalation - deintercalation in the layered matrix. These processes can be described by the following scheme:*



*Desorption occurs in the aqueous medium and sorption takes place during the treatment of the sorbent with lithium-containing brine. These sorbents are specific inorganic ones working in the chloride systems within the pH range  $3 < \text{pH} < 8$ . In alkali media at  $\text{pH} > 8$  LADH-C1 is transformed into the double aluminum-lithium hydroxide LADH or its carbonate form LADH-CO<sub>3</sub>. Both the latter forms do not possess any sorption properties. In an acid medium at  $\text{pH} < 3$  the sample is dissolved. The sorbent can be prepared in the granulated form which allows one to use the pulse Higgin columns. The obtained sorbent can be reused many times, and it exhibits high degree of lithium recovery (93 - 96%) from the complex salt systems (natural brines, liquid wastes) and provides the possibility to obtain rather pure lithium chloride solution (5 - 7 gLi/l)”*

### Lithium Extraction

Based on Pilot Plant testing involving Koch Systems and Amalgamated Research Inc. (Ari), a simulated moving bed design from ARi will be used for lithium extraction. ARi’s system will consist of two modules system of 7- to 14-ft diameter by 9-ft high columns with fractal distribution for each column. The system will have an adsorbent loading and unloading system and includes all interconnecting piping and valves.

DLE solution will be constantly loaded into one of two parallel systems operating. Each system will operate two of seven columns at any time. The other five columns are in a mix of washing, stripping, and rinse cycles. As the DLE solution flows through a top loaded column, approximately 98% of the lithium in solution is adsorbed and recovered onto the adsorbent. The spent solution (raffinate) is discharged to Ca/Mg Removal circuit to remove calcium and magnesium. Elemental rejection rates are as estimated in Table 17-3:

**Table 17-3: DLE Elemental Rejection Rate**

Design Parameter	Units	% Rejection
Li	%	2.5
Na	%	99.4
K	%	99.5
Ca	%	95.0
Mg	%	99.8
Al	%	>99
Fe	%	>99

Stripping or elution of the lithium off of the adsorbent is completed using reverse osmosis permeate. One bed volume of reverse osmosis water is passed through the column to remove any retained DLE solution. This DLE solution is directed back to the DLE tank and recycled. Once the initial rinse is complete, lithium desorbs into the RO water from the adsorbent using a concentration gradient effect. RO water is passed through the column until the lithium content of the sorbent approaches 200 ppm. The RO eluate grade average after stripping is approximately 600 ppm lithium. The eluate is then sent to a secondary 1,000 psi RO unit to remove more water. The lithium concentration from this reverse osmosis unit increases the grade to 4 to 6 g/l lithium. The permeate water is returned and recycled back for reuse as eluate solution. Typical eluate grades are identified in Table 17-4.

**Table 17-4: Typical Eluate Grade After Reverse Osmosis**

Design Parameter	Units	Value
Li	g/l	6.8
Na	g/l	2.7
K	ppm	155
Ca	ppm	340
Mg	ppm	28
Al	ppm	5
Fe	ppm	0

### **17.3.8 Raffinate Calcium Magnesium Removal**

The spent lithium raffinate from the DLE System is pumped to Ca/Mg Removal. The spent DLE solution is designed to be used in the chlor-alkali (CA) circuit. Before the CA system can use the solution, a majority of calcium and magnesium must be removed from the solution. The raffinate is sent to a 10,000-gallon mix tank where the pH is brought to pH 11.7 to precipitate the calcium and magnesium as hydroxides. Sodium hydroxide is added to the DLE raffinate in this tank at a rate of 5 gal/min bringing the combined tank contents to approximately 0.5% sodium hydroxide by volume. The sodium hydroxide reacts with calcium and magnesium forming hydroxide precipitates. The solution post precipitation overflows from the tank into a small thickener. Thickener overflow is sent to CA or recycled. The thickener underflow approaches 40% solids by weight and directed by gravity to a centrifuge that removes most of the remaining water. The centrifuge solution produced is combined with the thickener overflow solution and sent to CA or recycled. The calcium and magnesium are combined with tailings material and sent to the tailings facility. The solution from the centrifuge is directed back to the thickener center well. The flow rate of the raffinate after solids removal is estimated to be 2,500 gal/min.

### **17.3.9 Chlor-Alkali**

Chlor-Alkali is being used in this process system to regenerate both Hydrochloric Acid and Sodium Hydroxide for reuse. The regeneration of chemicals from the final process raffinate allows for the effective recycle of hydrochloric acid, caustic, and sodium. This minimizes the need for trucking large quantities of chemicals to the facilities.

Chlor-Alkali is a well-known process used around the world. Details of CA can be found in any major industry chemical equipment handbook. Century will only identify the major components of the system. The CA unit is comprised of two parallel trains. Combined solution from Ca/Mg Removal step that has a majority calcium and magnesium removed is mixed with depleted solution and extra salt to obtain a concentrated 300 g/l sodium chloride solution.

This concentrated salt solution undergoes final purification using sodium bisulfite, sodium carbonate, magnesium chloride, and iron chloride through various filtration, precipitation, and ion exchange steps to remove the remaining magnesium, calcium, lithium, boron, and aluminum to meet final CA requirements.

Purified salt solution is then passed through a heat exchanger before it is continuously fed into the electrolyzers. The number of electrolyzers and elements/cells in each electrolyzer is designed based on the requirement of production. Each cell is divided into an anode and cathode side, separated by an ion exchange membrane. Salt solution and 30% w/w caustic are fed to the anode and cathode chambers respectively. From the electrolyzer, chlorine gas, hydrogen gas, depleted salt solution and 32%w/w caustic are discharged. The hydrogen and chlorine gasses feed the hydrochloric acid synthesis to produce 35-37% w/w HCl solution. Caustic is recycled back to the electrolyzer with excess marketed as a by-product. The plant will

be designed for expansion. Key process design criteria parameters for the chlor-alkali plant are listed in Table 17-5.

**Table 17-5: Chlor-Alkali Plant Process Design Detail**

Design Parameter	Units	Value
Nominal Chlorine (100% cell gas)	t/d	400
Nominal Hydrogen	Nm <sup>3</sup> /h	7,935
NaOH 100% as (32% Solution)	t/d	450
NaCl Concentration from Process	g/l	118
Number of Electrolyzers	each	12
Number of Cells per Electrolyzer	each	86
Salt Storage	d	5
HCl Concentration	%w/w	37

### 17.3.10 Lithium Precipitation and Dewatering

The high-grade eluate from the secondary reverse osmosis unit in the DLE System is sent to one of two 5,000 gallon holding tanks in Brine Purification where a stoichiometric amount of oxalic acid (determined from high-grade eluate analysis) is added to remove the last remaining amount of calcium and magnesium and any other remaining deleterious metals. Minor amounts of sodium hydroxide are added to the system to maintain the pH at 7.5 for precipitation. The solution is filtered through a 0.5-micron Dow ultrafiltration unit and subsequent Dupont Nanofiltration Unit to remove more water. These consecutive filtration steps increase the solution grade from 5 to 6 g/l lithium to 12 to 15 gm/l lithium. High grade, purified lithium solution is then stored in one of two 2,000-gallon tanks before final lithium carbonate precipitation.

High grade solution from these tanks is pumped into a large Nutsche filtration unit. High purity sodium carbonate is added to the high-grade lithium solution at rate of 1.1 times the stoichiometric requirement of the amount of lithium chloride as determined analytically. The temperature of the system is maintained at high temperature to minimize lithium carbonate solubility. The solution is allowed to precipitate for one hour. After one hour, the remaining solution is drained through the 50-mesh Nutsche filtration unit and sent to the main DLE solution storage after precipitation tank for recycle.

The remaining lithium carbonate solids are then sequentially washed and rinsed twice with high temperature, high purity water to remove any remaining aqueous elements to include sodium and or potassium. The wash solutions are also sent back to the main DLE solution storage tank for recycle.

The precipitated lithium carbonate solids are then removed from the Nutsche filter, dried, and packaged.

### **17.3.11 Lithium Carbonate Drying and Packing**

Lithium carbonate will be extracted from the Nutsche filter by a ribbon screw feeder and discharged into the rotary drier (2.5-m diameter x 20.3-m length) at a moisture content range of 15% to 30%. The rotary dryer will be indirectly heated using electricity. The nominal peak operating temperature will be 425°C, achieving a less than 1% moisture content within the lithium carbonate product and having a packing density of 2.11 g/cm<sup>3</sup>.

The drier will produce a moisture stream that will be collected and condensed. The water will be recycled back to the high purity water tank. There will be no combustion products associated with drying.

Dried lithium carbonate will discharge into a bucket elevator delivering the product to a storage bin with a three- to four-day production storage capacity. The bin feed and product transfer points are kept under negative pressure by an induced draft fan that will draw air and dust through a dust capture baghouse. Captured dust will be discharged to the lithium carbonate bin.

Lithium carbonate will be metered from the bottom of the storage bin into a bagging system that will produce either 50-lbs bags or 1-ton super sacks. After being weighed, an ID label will be generated and attached to the bag or tote that denotes the weight of the contained product. Lithium carbonate product will be bagged daily.

A storage facility will provide sufficient room to store several hundred tons of material at a time. Lithium carbonate will be trucked regularly to final customers.

### **17.3.12 Tailings Neutralization**

The dewatered acid washed tailings from the filter press will be conveyed to the TSF and stacked at a designed pH of 7.5. Filtered tailings will be placed by a stacker and spread with a dozer. Significant work by WSP identified that the tailings will not liquify and will compact in the tailings facility. The current TSF design calls for a double layer liner system with a leak detection system and will be built in stages with any overflow water being collected and pumped back to the process facility for reuse. The tailings pH is 7.5.

### **17.3.13 Effluent Treatment**

Site effluents will be collected as necessary and recycled back to the process tank. All runoff and tailings effluent will be returned and recycled. None of the effluent waters are expected to be acidic, and the collected water will be placed in a small, lined pond to allow for any sediment to settle and used as process water.

Mine water from the pit will be discharged to a settling pond on surface and outside the pit limits. The pond can contain four to five days of normal mine water discharge. As water is

retained in the pond, suspended solids settle. The collected water will be used for fugitive dust control.

All other precipitation water will be diverted as necessary away from mine and process facilities.

### 17.3.14 Hydrochloric Acid

Hydrochloric acid at 37% purity will be produced at the chlor-alkali plant and will be pumped into two hydrochloric acid storage tanks. From the storage tanks, the hydrochloric acid solution is pumped to the leach tanks, the DLE Tank, and lithium carbonate production circuits, and other areas of the plant where it is used as a pH modifier. The hydrochloric acid storage tanks will provide a total of fourteen days of storage capacity.

### 17.3.15 Sodium Hydroxide

Sodium hydroxide at 32% purity will be produced at the chlor-alkali plant and will be pumped into two sodium hydroxide storage tanks. From the storage tanks, the sodium hydroxide solution is pumped to the surge tank following leach, centrifuge precipitation tank, and the lithium carbonate circuit circuits. The sodium hydroxide storage tanks will provide a total of fourteen days of storage capacity.

### 17.3.16 Antiscalant

Antiscalant is used to prevent scaling and fouling of the RO membranes. The antiscalant is delivered in drums and will be dosed to the water feed in the RO system. Drums will be placed close to each RO system and dosed using peristaltic pumps at a rate of 5 mg/L.

## 17.4 Reagents and Consumables

The type of reagents and major consumable consumption rate for the process plant are summarized in Table 17-6. Note that HCl and NaOH are made on site through the CA plant.

**Table 17-6: Chlor-Alkali Plant Process Design Detail**

Reagents/Consumables	Consumption (t/d)
Salt	650
Sodium carbonate	31.4
Hydrogen	15
Resin	0.57
Oxalic acid	1.12
Alfa cellulose	0.13
Sodium bisulfite	0.16
Magnesium chloride	0.47

Reagents/Consumables	Consumption (t/d)
Flocculent	0.1

### 17.4.1 Reagent Handling and Storage

To ensure containment in the event of an accidental spill, all reagents will be prepared and stored in a separate, self-contained area within the designated building and will be designed to accommodate 125% of the contents of the largest tank. The reagents will be delivered to the required addition points by individual metering or centrifugal pumps. All the reagents will be prepared using treated and filtered water. The reagent system will include unloading and storage facilities, mixing tanks, transfer pumps, and feeding equipment. The storage tanks will be equipped with level indicators and instrumentation to ensure that spills do not occur during normal preparation operations. Appropriate ventilation, fire, and safety protection will be provided at the facility. Safety data sheets (SDS) will be provided to the operating staff as a training and reference source. Each tank, reagent line, and addition point will be labelled following the Workplace Hazardous Materials Information Systems (WHMIS) standards. All operational personnel will receive WHMIS training and additional training for the safe handling and use of the reagents.

#### 17.4.1.1 Salt

Salt (for acid preparation) will be received in solid form in bulk tankers and stored in a dedicated area. It will be added as required to the raffinate tank for sodium and chlorine make-up. It will then be used in the chlor-alkali plant to produce the hydrochloric acid and sodium hydroxide needed for the process plant. The concentrated hydrochloric acid produced will be stored in fiberglass tanks and delivered by metering pumps. Sodium hydroxide will be made in 30% and 50% form and stored in steel tanks. The containment areas will be equipped with sumps and pumps to recycle any spillage.

#### 17.4.1.2 Sodium Carbonate

Sodium carbonate will be delivered in bulk bags. It will be unloaded in a hopper equipped with a bag breaker and dust collector. The sodium carbonate will be mixed with RO water in a mixing tank at 30% solids density and then stored in a heated holding tank and distributed via metering pumps to the lithium carbonate circuit.

#### 17.4.1.3 Hydrogen

Hydrogen will be made in a hydrolyzers located at the chlor-alkali plant using reverse osmosis water created on site. The hydrogen will be stored on site in a cryogenic tank and fed to the

hydrochloric acid burner as make-up hydrogen. Hydrogen needed for the HCl burner will be pumped using an appropriate gas line for hydrogen.

#### **17.4.1.4 Resin**

Specialized resin purchased for the DLE circuit will be provide by non-Chinese sources. The material will be supplied in bulk bags and stored under roof in a contained area. A one-year supply will be kept on site.

#### **17.4.1.5 Oxalic Acid**

Dry oxalic acid will be purchased in 50 lbs sacks by the pallet. The material will be stored under roof in a contained area. Approximately two months' supply will be maintained on site. The material will be mixed using a bag breaker into a tank.

#### **17.4.1.6 Alpha Cellulose**

Alpha cellulose will be brought to site in bulk bags and stored under roof in a contained area. Approximately two months' supply will be maintained on site.

#### **17.4.1.7 Sodium Bisulphite**

Sodium bisulphite will be brought to site in bulk bags and stored under roof in a contained area. Approximately two months' supply will be maintained on site.

#### **17.4.1.8 Magnesium Chloride**

Magnesium chloride will be brought to site in bulk bags and stored under roof in a contained area. Approximately two months' supply will be maintained on site.

#### **17.4.1.9 Flocculant**

Flocculants will be received in bags on site. A flocculant screw feeder will feed the flocculant eductor using freshwater addition. The mixed solution will be transferred and stored in a holding tank. The packaged flocculant mixing system will run automatically based on the solution level of the holding tank. The flocculant will be made up to 0.5% solution strength and added via metering pumps to the thickener.

#### **17.4.1.10 Other Reagents**

Antiscalants, as required, will be added to minimize scale build-up in water lines. This reagent will be delivered in liquid form and metered directly into the intake of the water pumps.

New reagents will occasionally be tested to determine their effect on metal recovery and concentrate grading. These reagents will be handled in accordance with SDS requirements. A facility for mixing and dosing the test reagents will be provided.

The water system will consist of two separate systems: make-up water and process water. The process water system is designed to allow the re-use of process water at various points of the plant, and the make-up water system allows the injection of raw water to the plant as required to compensate for water losses, mainly in tailings.

#### **17.4.2 Consumables**

The major consumable items for the attrition scrubber will be liners. Other consumables include screen decks, filter cloths, concentrate drums, and laboratory supplies. Maintenance spares for the processing plant and assay laboratory will also be provided.

### **17.5 Assay and Metallurgical Laboratory**

An assay laboratory will provide all the routine assays for the mine, the processing plant, environmental, and geological departments. The main instruments will include:

- ICP-MS

The metallurgical laboratory will undertake all necessary tests to monitor metallurgical performance and, more importantly, to improve process flowsheet and efficiency. The laboratory will be equipped with:

- Laboratory jaw and cone crusher
- Dust collection system
- Ring and puck pulverizer
- Ro-Tap® sieve shaker and test sieves
- Oven-style moisture determination equipment
- Sedimentation devices and laser particle sizer
- Leaching analysis glassware
- pH meters
- Bench precipitation reactors
- Convection oven
- Weighing devices
- Filtering units (pressure/vacuum filters)
- Fume hoods with extraction fans

Bulk sample preparation equipment, including drying ovens, laboratory glassware, and reagents. Appropriate samplers will be available for routine bulk sampling and plant surveys for process control and metallurgical accounting.

## **17.6 Water Supply and Compressed Air**

All water will be supplied the plant facilities via pipeline from a well field located in Clayton Valley. The pipeline will be buried below the freeze line and will be made from high density polyethylene (HDPE) plastic. Water sources close the plant site are being pursued.

### **17.6.1 Fresh and Potable Water Supply System**

A freshwater supply system will provide fresh and potable water to the mine and process plant. Freshwater will be pumped from the water supply wells and supplied to a freshwater storage tank, and distributed by pumping. All the freshwater pipelines outside heated buildings will be buried below the freezing level. Freshwater will be used primarily for the following:

- Firewater for emergency use
- Potable water supply

The freshwater tank will always be full and capable of providing at least two hours of firewater in an emergency. The potable water will be treated via chlorination and ultraviolet lamps and stored in a tank before delivery to various service points.

### **17.6.2 Reverse Osmosis System**

RO water will consist of fresh water treated via reverse osmosis to create water suitable for processing. The water will be directed to a permeate water storage tank and pumped to the distribution points in the processing plant. As with fresh water, treated water supply and distribution pipelines outside the heated buildings will be buried below the freezing level. RO water will be used as reagent make-up water and gland seal water.

### **17.6.3 Process Water**

The plant design contemplates two process water circuits. A neutral-pH process water (PW1) circuit and a high pH (~12 pH) process water (PW2) circuit.

PW2 is generated from the chlor-alkali plant and tailings filtrate water from the tailings filtration circuit. Excess PW2 will be neutralized with hydrochloric acid and combined with the raw water RO and process water RO reject streams to generate PW1. PW1 is used in the chlor-alkali plant, leaching tanks, and wash water in the tailings filters.

Excess neutralized water from the water neutralization tank is further treated in a process water ultrafiltration and RO system. The process water RO system includes six ultra filtration UF filters and six two-pass/two-stage RO skids. The treatment of the excess neutralized process water is meant to decrease the requirements of raw water by recycling all excess water back to the system.

#### **17.6.4 Heat System**

Heat is supplied for process heating from an electric oil boiler. The main users will be the leaching circuit and the lithium carbonation tanks.

#### **17.6.5 Air Services**

Separate air service systems will supply air to the following areas:

- Dedicated air compressors will provide the high-pressure air required for air agitation in the precipitation tanks.
- Plant services: High-pressure air will be supplied by two separate air compressors.
- Instrumentation: Instrument air will be generated at plant sites separately from two dedicated oil-free air compressors, which will be dried and stored in a dedicated air receiver.

### **17.7 Process Control and Instrumentation**

The plant control system will consist of a distributed control system (DCS) with personal computer (PC)-based operator interface stations (OISs) located in control rooms. In conjunction with the OIS, the DCS will perform all equipment and process interlocking, control, alarming, trending, event logging, and report generation. DCS input/output (I/O) cabinets will be located in electrical rooms and interconnected via a plant-wide fiber-optic network.

A separate control system/control room will be required in the power generation plant with components provided by the power generation system vendor. Field instrumentation will consist of microprocessor-based "smart" type devices. Instruments will be grouped into process areas and wired to local field instrument junction boxes within those areas. Signal trunk cables will connect the field instrument junction boxes to DCS I/O cabinets.

Intelligent-type motor control centers (MCCs) will be located in the electrical rooms throughout the plant. The MCC remote operation and monitoring will be via approved industrial communications protocol interface to the DCS.

Programmable logic controllers (PLCs) or other third-party control systems supplied as a part of mechanical packages shall be interfaced with the plant control system via ethernet network interfaces.

A supervisory expert control system is proposed to control product particle size and optimize the fresh mill feed tonnage in the grinding circuit. Expert supervisory control will be developed to optimize the set points for controllers at the regulatory level. Mill solid concentration variable-ratio control, dilution water flow rate control, and level control will be carried out at the regulatory level to reach the control targets. The set-point modification by expert control for the dilution water controller will provide optimal dynamic performance.

The plant control room will be staffed by trained operations personnel 24 hours daily. A central control room in the process plant will be provided with three OISs. Control and monitoring of all processes in the process barges will be conducted from this location. Control and monitoring functions will include, but are not limited to, the following:

- Attrition scrubber, stacker reclaimer, roll crusher belt feeder (zero-speed switches, side-travel switches, emergency pull cords, belt scales, metal detectors, and plugged chute detection)
- Roll crusher, attrition scrubber, trash screen (mill speed, bearing temperatures, lubrication systems, motors, and feed rates).
- Leach and precipitation tanks (level controls, pH, reagent addition, temperature, and others)
- Filtrations system (tanks, plate and frame filters, pumps, washing, and discharge)
- Samplers
- Carbonate Production System (tanks, filters, chemical addition, temperature, dust control, and others)
- Raffinate thickener (drive, slurry interface levels, underflow density, and flocculants addition)
- Reagent handling and distribution systems
- Tailings disposal system
- Water storage, reclamation, and distribution, including tank-level automatic control (via ethernet remote I/O)
- Air compressors
- Instrumentation packages

### **17.7.1 Remote Monitoring**

Closed-circuit television (CCTV) cameras will be installed throughout the process plant, with monitors in the control room. The CCTV monitoring locations will include ROM Pad, attrition scrubber, leaching, precipitation, filtration, DLE, lithium carbonate packaging area, and loadout area.

## **17.8 Power Requirements**

The power required by the various process related areas is provided in Table 17-7 for Phase 1 and 2. Power required for the processing facilities will be supplied via power lines from the electrical grid.

**Table 17-7: Power Requirements**

Process Area	Project Phase 1 (MW)	Project Phase 2 (MW)
ROM material handling and sizing	0.58	1.16
Leaching	0.34	0.68
Tailings filtration/handling	2.34	4.68
Ion exchange and impurity removal	2.27	4.54
Lithium production (RO, evaporation, precipitation, packaging)	2.41	4.82
Chlor-alkali plant	47.0	91.4
Reagents	1.2	2.4
Process plant services (steam, air, fuel)	2.9	5.8
Ancillary buildings	0.7	1.4
<b>Total</b>	<b>53.2</b>	<b>106.4</b>

## 17.9 Plant Staffing

Plant personnel requirements are developed based on the operational requirements, shift, equipment attendance, safety, training, and maintenance requirements. Average annual process plant staffing requirements are summarized in Table 17-8. The staffing is based on two 12-hour shifts per day on a two-week basis.

**Table 17-8: Plant Staffing Requirements**

Area	Personnel Required
Management	2
Operations	41
Assay and Metallurgical Laboratory	7
Process plant Maintenance	20
Total	70

## 18.0 PROJECT INFRASTRUCTURE

### 18.1 Summary

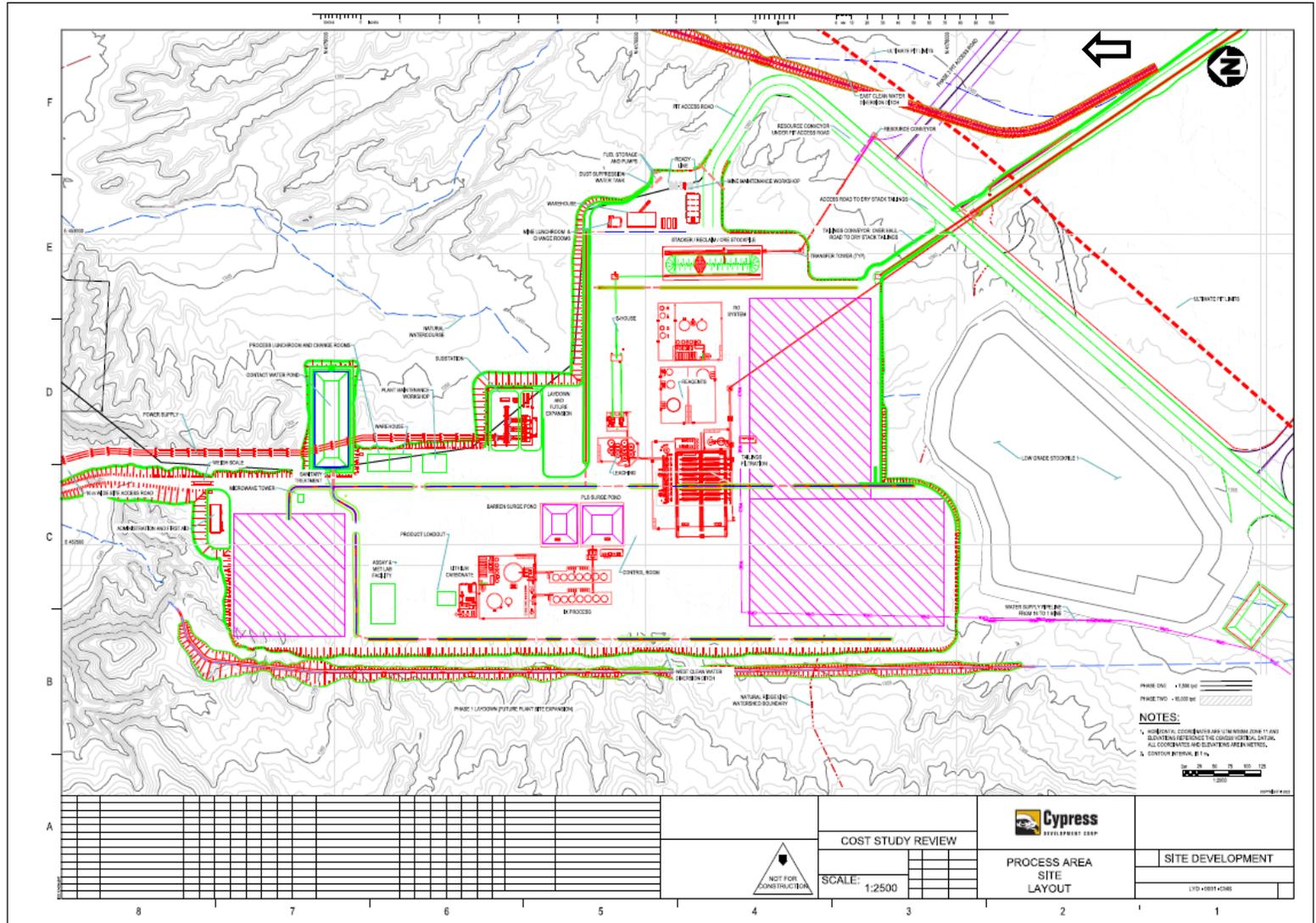
The on-site infrastructure required for the Project includes:

- New access road
- On-site roads
- ROM stockpile
- Chlor-alkali plant
- Process plant, warehouse and workshop
- Mine maintenance workshop, mine dry, warehouse and ready line
- Administration and first aid building
- Waste Rock Storage Facilities (see Section 16)
- Low grade stockpiles (see Section 16)
- Dry stack tailings construction stockpile area
- Dry stack TSF, collection and event ponds
- TSF conveyor
- Contact water ponds, clean water diversion channels/ditches
- Site power supply and distribution
- Potable water and sanitary sewage treatment.

The proposed site layout is shown in Figure 18-1.

### 18.2 Access Roads

The Angel Island project site can be accessed by from US Highway 95 on Highway 265 north of Silver Peak or from the east on Silver Peak Road from Goldfield, NV. Silver Peak Road traverses the northern part of the Property in an east-west direction and comes under the jurisdiction of the Nevada Department of Highways. Permanent site access roads will facilitate vehicle, material, and supply movements throughout the site and infrastructure facilities. The access roads at the site will be constructed to provide:



**Figure 18-1: Overall Site Plan (Source: CMS, 2025)**

External access roads: South access from the Silver Peak to the process plant area, via a security check point.

Internal access roads: Between the process plant area and the open pit mine, water well, CA plant, and tailings facility.

The site access roads are classified into primary and service roads. Each category uses an optimized typical section depending on the intended use. The general design criteria for each road type are presented in Table 18-1. All site access roads and access controls will be monitored and radio-controlled by either site security or operational personnel depending on the location. Any external access roads from other properties will be gated to prevent accidental entry by unauthorized vehicles. Reagent deliveries will only be accepted during daylight hours for operator and driver safety.

**Table 18-1: Roadway Design Criteria**

Parameter	Access Road	Project Roads
Classification	Double Lane	Single Lane
Design Speed	Posted Speed Limit + 20 mph	
Maximum Speed for Mobile Equipment	25 mph	25 mph
Driving Lanes	12 ft	24 ft
Shoulders	4 ft	8 ft
Total Surface (Width)	32 ft	40 ft
Vertical Gradient	6% Max	8% Max

### 18.3 Mineral Processing Facilities

Please refer to Section 17 for detail descriptions of the mineral processing facilities.

### 18.4 Process Plant Site

Ancillary buildings and infrastructure for supporting the mine operation and ore processing at the site will consist of a truck shop complex and dry, assay laboratory, administration building, fuel storage and refuel station, power distribution system, communication tower, security buildings, freshwater well, water distribution system, and laydown areas.

#### 18.4.1 Truck Shop Complex

The truck shop complex will consist of a 51-ft x 150-ft wide pre-engineered sprung building designed to accommodate facilities for repair, maintenance, and rebuilding of mining

equipment, haul trucks, light vehicles, and mobile equipment. The facility will also provide storage space for spare parts and consumables, offices, lunch room, washrooms and dry for truck shop personnel, first aid, emergency response station, and necessary equipment storage.

The truck shop complex will be located south of the process plant. The total usable ground floor area of the building will be approximately 7,650 ft<sup>2</sup>, including one vehicle service bays, one wash bay, one tire change and lube bay, a welding area, a machine shop, dry and a warehouse. The second floor will provide an additional 2,000 ft<sup>2</sup> of washrooms, a lunchroom equipped with a kitchen and appliances, and office space.

The vehicle service and wash bays will have vehicle access doors on both north and south sides to facilitate vehicle drive-through to eliminate the needs for backing up vehicles or making U-turns, which will enhance the traffic safety for other road users in the area.

The first aid and emergency response station will include a first aid room and separate ambulance area. It will also have storage for emergency response equipment.

Ventilation fans and flash shields will be provided in the welding area for personal protection. Air compressors and receiver tanks inside the truck shop complex will provide compressed air for pneumatic tools.

A modularized lubricant storage enclosure will house tanks for storing lubricants, coolants, and waste oil for the mine and plant mobile equipment fleets. The lubricant storage enclosure will also contain air-operated transfer pumps for supplying lubricants to the truck shop dispensing reels in the service bays. A pipe rack will connect the truck shop to the lubricant storage building. A separate modular exterior storage unit will be provided for waste oil and spent coolants. Waste lubricant recovery systems will pump used oil and coolant to holding tanks located at the lubrication storage facility for recycling or disposal. A bermed spill containment area, sorbents, and spill kits will be provided where the new and used fluids are stored. Fire-proof containers will be provided for storing used oily rags prior to disposal.

The warehouse integrated into the truck shop complex will house materials, service parts, and supplies for mine and plant mobile equipment maintenance. The warehouse will be serviced by electric forklifts. A ready line outside the truck shop complex will provide parking for mine mobile equipment units awaiting service or repairs.

#### **18.4.2 Administration Building**

The administration and mine dry building will be a 75-ft x 75-ft modular building with a total floor area of 5,625 ft<sup>2</sup>. The ground floor will consist of a lunchroom, offices, workstations, and conference rooms for facility personnel. The lunchroom will be equipped with fridge, stove, microwave, coffee maker, dishwasher, and cupboards. The office spaces shall be equipped with furniture such as desks, chairs, computers, and telephones.

### **18.4.3 Assay and Metallurgical Laboratory**

The assay laboratory building will be a 60-ft x 53-ft modular building with a total floor area of 3,100 ft<sup>2</sup>. The ground floor will consist of a lunch room, bucking room, dry, wet and dry labs, assaying rooms, drying room, and offices. The lunchroom will be equipped with fridge, stove, microwave, coffee maker, dishwasher, and cupboards. The office spaces shall be equipped with furniture such as desks, chairs, computers, and telephones.

A mine sample preparation will be equipped to support grade control operations plus occasional samples of various materials on the property.

The assaying will consist of solution assaying with ICP and a wet lab for testing leaching and testing dry samples. The wet lab will consist of appropriate fume hoods and dust collection as needed.

### **18.4.4 Mill Warehouse**

The site will also house a warehouse building to store supplies and equipment, such as pumps, motors, liners, etc., required for plant operation and maintenance. It will be a 53-ft x 53-ft insulated, heated, pre-engineered building with a 5t overhead crane and truck receiving platform. The facility will be equipped with interior and exterior lighting and an electric forklift for offloading and stacking pallets.

### **18.4.5 Gatehouse**

There will be two site access control gatehouses. Each gatehouse will be a 30-ft x 40-ft single storey modular building with a waiting area for visitors, a reception counter, safety area, and a washroom. The gatehouse will control incoming equipment and supply deliveries. All personnel coming to the site will report directly to this gatehouse.

### **18.4.6 Power Supply and Distribution**

A permanent power transmission lines and substation with sufficient capacity exists and is located approximately 5 mi from the project site. Power will be delivered to site through an upgraded 90 kv power line to permanent on-site substation that will transfer power.

The total maximum continuous running power requirement for the site is estimated to be around 10 MW. Critical substation spare parts will be stored on site. Uninterrupted Power Supplies (UPS) and battery banks on site will provide the power supply to critical electronics and safety equipment in case of interruptions in power generation or distribution.

The main mine site substation will step down the transmission line voltage from 90 kV to 34.5 kV via 2 30-MVA main power transformers complete with automatic tap changers. The purpose of the automatic tap changer is to maintain the transformer's secondary voltage level at 34.5 kV. The two main power transformers will feed power to a single 34.5 kV switchgear located inside a prefabricated electrical room. The 34.5-kV switchgear will contain tie breakers that will allow power (if required) to be transferred between transformers.

The main substation will be centrally located on the mine site and will consist of one 90kV – 34.5kV, 30/50/75MVA, 3 phase, 60-hertz (Hz) power transformers.

The main 34.5 kV distribution switchgear will provide circuit protection and power monitoring for feeders to each process area where secondary transformers convert the power to the local utilization level of 4.16 kV or 480 V.

The power feeds from the main 34.5-kV switchgear to the process areas will be installed in buried conduits. From the stacker/reclaim area, the 34.5-kV power will transition from a buried power system to a 34.5-kV overhead power line. This overhead power line will supply power to the mining operation and to the dry stack TSF. To minimize installation costs, the electrical rooms will be distributed around the site and installed as close as possible to the major electrical loads.

All process electrical rooms will be modular units assembled off site. The rooms will be installed outdoors on elevated steel structures adjacent to process areas. The rooms will be self-supporting, designed and packaged for road shipment to site. All electrical distribution equipment, controls and instrumentation equipment will be installed, wired, and completely tested before shipment.

The rooms will be built to meet a one-hour fire rating. All openings will be sealed and made water- and dust-tight by using approved fire-retardant materials.

All electrical rooms will have two means of egress at opposite ends of the room. Doors to the rooms will be supplied with panic exit type hardware. Each room will also have an equipment door sized to permit the largest piece of equipment to be installed/removed without removing the door from its hinges. The electrical rooms will be pressurized, air conditioned, and designed in accordance with occupancy regulations.

A 1 MW modular standby power plant will be provided, rated for the maximum power required in the event of a Utility power failure. The power plant will consist of 2 x 1,000-kW units.

The emergency power loads will be controlled through the process control system, which will stagger starts, automatically start and stop loads to keep process tanks properly agitated, and other critical operational equipment.

UPS will be used to provide backup power to critical control systems. The UPS equipment will be sized to permit operations to shut down and back up the computer and control systems for start-up on restoration of normal (utility) power.

Emergency battery power packs will be available for backup power to the fire alarm system and emergency egress lighting fixtures.

#### **18.4.7 Acid Plant**

Based on chlor-alkali technology, the hydrochloric acid requirement for leaching, sodium hydroxide for neutralization, pH control, and effluent treatment will be obtained from a chlor-alkali plant. The plant can produce a maximum of 400 t/d of chlorine that will be made into 36% (w/w) hydrochloric acid using the chlor-alkali process. This process will also produce approximately 450 t/d of caustic on a 100% basis and will be shipped as 50% caustic (w/w) basis. In addition to acid generation, the hydrochloric acid burner will produce high temperature steam that will be utilized in the leaching and other circuits within the process plant.

The plant components will be modularized and shipped for final assembly and installation at the site with technical support from the manufacturer. The plant will be housed in a 100-m x 100-m insulated, single-storey, pre-engineered building. Other areas such as water purification, filtration, neutralization, and hydrolyzation will also be contained within the chlor-alkali area. The building will be supplied with truck access for salt receiving and provided with interior and exterior lighting. Power will be delivered to site through an upgraded 250 kV power line to permanent on-site substation that will transfer power.

Electrical power usage is estimated at 55 MW and will be provided from the Greenlink Substation located approximately 5 miles west of the project. The total maximum continuous running power requirement for the site is estimated to be around 50 MW. Critical substation spare parts will be stored on site. UPS and battery banks on site will provide the power supply to critical electronics and safety equipment in case of interruptions in power generation or distribution.

The site substation will step down the transmission line voltage from 400 kV to 138 kV via two 100 MVA main power transformers complete with automatic tap changers. The purpose of the automatic tap changer is to maintain the transformer's secondary voltage level at 34.5 kV. The three main power transformers will feed power to a single 34.5-kV switchgear located inside a prefabricated electrical room. The 34.5-kV switchgear will contain tie breakers that will allow power (if required) to be transferred between transformers.

The main substation will be centrally located on the plant site and will consist of three 138 kV to 34.5 kV, 70/100/132MVA, 3 phase, 60-Hz power transformers.

### **18.4.8 Explosives Magazine**

No explosives are required for this project.

### **18.4.9 Fuel Storage and Dispensing**

Diesel will be used for general site equipment, surface mobile equipment, backup generators, and other ancillary services.

Modular diesel fuel tanks will be used for fuel storage and transported to the site. The tanks are double-walled. The flow controls of the tank are valved. The valves will stay closed to prevent fuel leakage or escape of fuel vapor. The tanks will be routinely inspected and tested for preventive maintenance. Each tank will be equipped with leak detection instruments that measure the vacuum between the tank walls. Tanks with a lower-than-normal vacuum reading will be repaired.

The tanks will be placed in a designated fuel farm area adjacent to the truck shop complex and they will provide approximately one week of fuel storage capacity. A modular fuel dispensing station will provide a means for fuelling mobile equipment. The ISO tank storage area will be protected by spill containment berms and fuel resistant liners. The designed containment volume of the spill containment area will be at least 110% of the capacity of the largest fuel storage tank in the containment area. Any fugitive fuel contained within the containment area will be removed as soon as practically possible. The containment areas will be instrumented with monitoring devices, which will alert the control center of any detected leakage or spillage. Spill response vehicles and equipment will be stationed at the truck shop complex, on standby 24/7, and dispatched immediately when required.

### **18.4.10 Communications**

A voice and data communications system will be established at the mine site via a microwave radio link and will consist of a microwave antenna mounted on a tower near the process plant. All telecommunication systems will be supplied as a design-build package.

A communications network will be established among occupied buildings utilizing fibre-optic technology and wireless communication for voice, Internet, and intranet traffic. The design will include:

- Voice over Internet Protocol technology using wide area network (WAN) links for voice communications and video conferencing systems.
- VHF radio system will be installed with provision for handheld units, mobile units, and base stations.
- A telephone PBX system and cellular phone service will be provided for telephone

communications.

- The local area network (LAN) system will utilize switches to connect to users' computers, and the WAN system will use routers with multi-protocol label switching capabilities to support voice and high bandwidth capabilities.

A backup satellite system rated to handle the full communications bandwidth will also be installed. Backup power to communication and critical control systems will facilitate the orderly shutdown and start up of equipment, control systems, and backup computers.

A pre-manufactured trailer consisting of the main communication contractor and all sub-systems will act as a main telecommunication central office, which will serve the construction phase and later expand for the operation phase of the project.

#### **18.4.11 Heating and Ventilation**

The facilities, such as office space, board rooms, dining electrical, and communication and control rooms, will be air-conditioned. Localized controls will provide climatic control for the unit heaters.

Continuous ventilation will be provided for all personnel-occupied and selected unoccupied spaces. Ventilation rates will vary depending on the level of occupancy and the intended use of the area. Ventilation systems will include make-up air units for a continuous supply of tempered air, general exhaust fans for contaminant removal, and, where appropriate, localized exhaust fans to remove contaminants directly.

#### **18.4.12 Fresh and Fire Water**

Water for the project will be supplied via a 5-km long 12-in DR11 HDPE pipeline from the new well field located near the project. Alternative sources of water supply closer to the plant site will be investigated to reduce the capital and operating costs and to mitigate the risks in maintaining this pipeline along the roads that are subject to flash floods and erosion.

Fresh water will be distributed from the raw water tank located inside the RO water plant and will supply the plant site and mine vehicle maintenance buildings and the dust suppression water tank.

There will be a potable water treatment plant and associated potable water tank in the process plant site area. Potable water will be distributed throughout the plant site as required. Remote sites, related to mining and the TSF, will have potable water delivered in bottles.

Collected surface runoff in the contact water pond in the plant site area will be pumped to the RO water system via a buried HDPE pipeline.

This water supply will be suitable for the initial phases of the facility operation

Fire water for the process plant site areas will be supplied from the RO/fire water tank and pumps, located in the process facilities. The system will be complete with fire pumps, a jockey pump, distribution piping and fire hydrants.

Firewater distribution water mains are dedicated to the supply of fire protection water only.

Firewater distribution piping will be buried at a sufficient depth below frost line to protect the system against freezing. Firewater distribution piping installed above ground and outside the heated buildings will be insulated and electric heat traced for freeze protection. Electric heat trace circuit failure will be alarmed in the fire alarm signaling network for quick response and isolation of the affected zone.

### **18.4.13 Sewage Treatment**

The sanitary system comprises sanitary collection and conveyance pipes, pump stations, treatment plant, and treated sanitary effluent line discharging to RO potable water rejects tank in the RO system.

The sanitary sewer is conveyed to the packaged sanitary sewage treatment plant for treatment. In remote locations the sanitary sewage will be collected in a holding tank and pumped out by a vacuum truck as required. A drain field will be reviewed as an alternative option.

### **18.4.14 Hazardous Wastes**

All the hazardous waste will be segregated and placed into designated containers at the point of generation. All the collected waste will be temporarily stored in a lined laydown area near the site fuel storage facility and shipped offsite to a recycling or disposal facility.

Some of the typically generated hazardous waste handling protocols are listed below:

- Waste oil and organic waste liquids such as antifreeze, solvents, and grease will be shipped to an offsite recycling facility.
- Old tires will be used to construct vehicle protection barriers on the haul roads, where necessary, any excess tires will be shipped to an offsite recycling facility.
- End-of-life electronics, light bulbs, and batteries will be collected and shipped to an off-site recycling facility.
- Soil contaminated with hydrocarbon will be collected and treated and treated off-site as necessary.

#### **18.4.15 Non-Hazardous Wastes**

Non-hazardous waste will be separated into putrescible and non-putrescible waste. The putrescible waste, such as food, will be segregated and sent to an off-site landfill. Non-putrescible, recyclable waste will be collected and stored in an onsite landfill. The landfill will be periodically covered under a layer of waste rock to reduce windborne pollution from the waste.

#### **18.4.16 Medical/First Aid**

First aid posts will be provided at the main office and the truck shop complex. A first-responder will be in attendance at the site for first aid. A fully equipped ambulance for advanced life support will be located at the truck shop complex. Emergency Med-Evac air ambulance services will be contracted out to registered services in the nearby communities.

#### **18.4.17 Security**

Access to the project site will be monitored and controlled by the security on site. There will be one security gatehouse, at each of the site access roads. The gate house will be manned by the site security 24/7. The site access to the TSF will be only accessible to site and contractor crews. The TSF road will be monitored and remotely controlled by the site security 24/7.

### **18.5 Waste Rock Management Facility**

In accordance with NDEP, this section explains the management of waste rock material generated during the project life to ensure the protection of the environment and the health and safety of the people. The management of tailings and TSF is discussed in Section 18.6. The low-grade ore stockpile is discussed in Section 17.3.1.

#### **18.5.1 Low Grade Stockpile**

The mine plan has shown that during mining activities, approximately 75,000 m<sup>3</sup> of material would be generated. It is expected that most of the material, would be stored and managed at the waste management facility and later processed at the plant as necessary.

The low-grade stockpile is not acid producing and will be placed on the surface to the southwest of the plant. Run-off water from this facility will be directed into a settling pond, which will be allowed to settle and used for dust control or process water.

## **18.5.2 Waste Rock Stockpile**

The project is expected to generate approximately 2.9 million tons of waste rock material during the LOM. Out of total waste rock material, non acid producing waste accounts for 100% of the material. This material will be placed in two facilities, one on the northwest area of the pit and one the northeast area of the pit.

All the run-off water from waste stockpile will be directed to a settling pond and used for dust control.

## **18.6 Dry Stack Tailings Management Facility**

This section outlines the development plan for the TSF in sufficient detail to support the FS of the project.

### **18.6.1 Background**

The proposed TSF is planned to be constructed as a geomembrane lined facility. The tailings waste material is to be mechanically dried to a cake-like material using a filter press and placed in the TSF in a dry stack fashion. Additionally, a small fraction of the precipitated solids (white residue) will be dewatered and be co-disposed in the TSF.

The design criteria for the TSF design were developed based on the following regulations and with consideration of the requirements of Global Industry Standard on Tailings Management (GISTM, 2020):

- Nevada Administrative Code (N.A.C.) 535.210 – Submission of application for approval of plans for dam.
- N.A.C. 445A.350 through N.A.C 445A.447 – Mining facilities
- NDEP, Bureau of Mining, Reclamation, and Regulation (BMRR) – Stability Requirements for Heap Leach Pads (BMRR, 1994).

The TSF has been designed to contain the currently planned tailings production at an average dry density of 1.35 t/m<sup>3</sup>. Both filtered tailings and white residue material will be transported via overland conveyor to the TSF.

Tailings will be stored within a geomembrane liner consisting of the following containment assembly (from bottom to top):

- Prepared subgrade
- A layer of liner bedding fill (if needed)
- 2.0 mm double sided textured high-density polyethylene (HDPE) geomembrane liner.

An over-liner drainage system is to be installed over the geomembrane liner consisting of a gravity piping network surrounded by both a granular fill and protective fill, to collect and convey stormwater, along with drain-down through tailings (if any), and to minimize fluid pressure on the liner.

The TSF is planned to be developed in six phases (in line with the pit phases) with TSF Phases 1 and 2 constructed to the east of the open pit as an above-ground pad, and TSF Phases 3 to 6 to be constructed as a combination of in-pit disposal and above-ground disposal to form one storage facility upon completion. Figure 18-2 shows the site layout and development plan of the proposed TSF.

The material will be dry stacked and follow stacking restrictions. A structural zone is designated around the outer shell of each lift and only filtered tailings can be placed in nominal lifts of 1 m with the top 0.3 m compacted to achieve a minimum 95% of the maximum dry density as determined by the Standard Proctor method (ASTM D698). The remaining stack is designated as a non-structural zone and can accommodate both the filtered tailings and white residual materials placed in nominal lifts of 2 m with the top 0.3 m compacted to a minimum 90% of the maximum dry density as determined by the Standard Proctor method (ASTM D698).

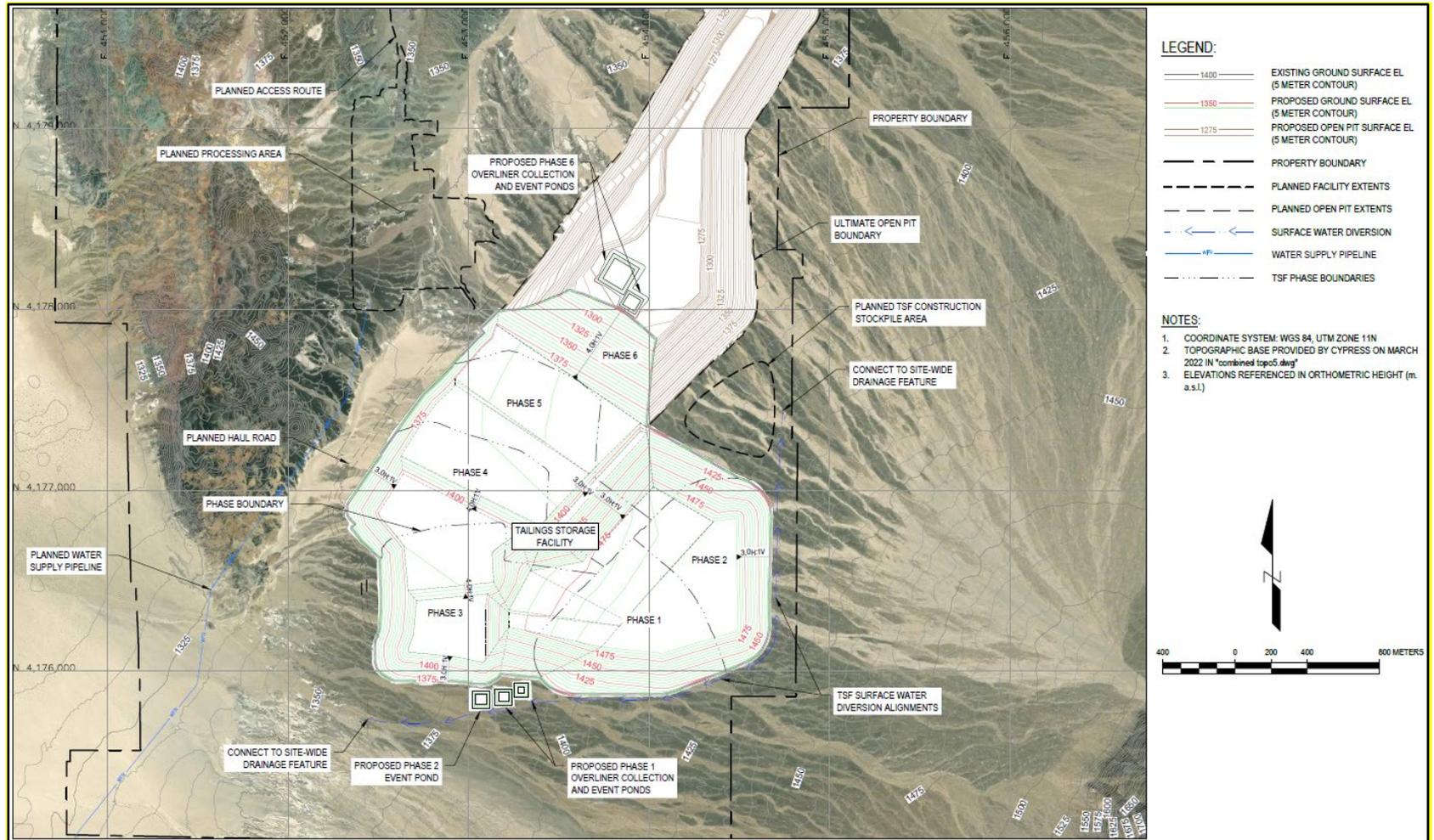
Benching will be provided between lifts along perimeter slopes to provide overall average slopes no steeper than 3H:1V (horizontal to vertical) for slopes above ground and no steeper than 4H:1V for slopes in-pit.

### **18.6.2 TSF Collection and Event Ponds**

The over-liner collection ponds will be constructed for long-term fluid storage and large enough to contain runoff from a five-year, 24-hour event. Storage of runoff greater than the five-year, 24-hour event will be provided by lined event ponds. The event pond(s) will be constructed to accommodate a combination of the drain-down from the dry stack (if any) and runoff resulting from a 500-year, 24-hour storm event falling on the TSF Phases 1 and 2 areas, or from a 100-year, 24-hour stormwater event falling on the TSF Phases 3 to 6 areas. Moreover, an overflow spillway has been designed connecting TSF Phases 1 and 2 event ponds to the pit. This will ensure that if the extreme event precipitation exceeds the design storm, the overflow is fully contained on site.

A leak collection and recovery system will be constructed between the primary and secondary geomembrane liners of each over liner collection pond.

Storm water diversion channels discussed in Section 18.7 will divert storm water flows from ephemeral wash areas around the TSF.



**Figure 18-2: Tailings Storage Facility Plan (Source: WSP, 2023)**

## **18.7 Site Water Management**

Non-contact stormwater will be separated from contact water. Non-contact stormwater is defined as storm runoff from off-site undeveloped surfaces. Contact water is defined as storm runoff from developed site surfaces and adjoining undeveloped surfaces where stormwater runoff water quality could be impacted from mining disturbance.

Non-contact stormwater will be directed to natural drainage paths or streams by diversion ditches or channels. Contact water from the plant site area will be collected in swales and ditches and directed to a lined contact water pond. The pond water will be pumped to the process plant as required.

The use of ditches will be minimized; they will be located within the plant site and along the roads where necessary to manage storm runoff. The use of buried stormwater culvert piping will be avoided unless surface drainage systems are not feasible.

The stormwater management system will be designed to accommodate a storm event with 100-year return period without flooding the plant site or critical infrastructure during operations.

Drainage infrastructure related to the dry stack tailings area are designed to pass a 1 in 500-year storm event. All channels will be sized to manage the runoff from tributary areas under the design events and protected with erosional armoring using durable, non-acid generating rock riprap over a non-woven geotextile.

Runoff from the low-grade stockpile and plant site will be managed as contact water and report to contact water ponds. The ponds will be lined with primary and secondary geomembrane HDPE liners with a leach detection system and will include a pumping system for water evacuation as needed.

## 19.0 MARKET STUDIES AND CONTRACTS

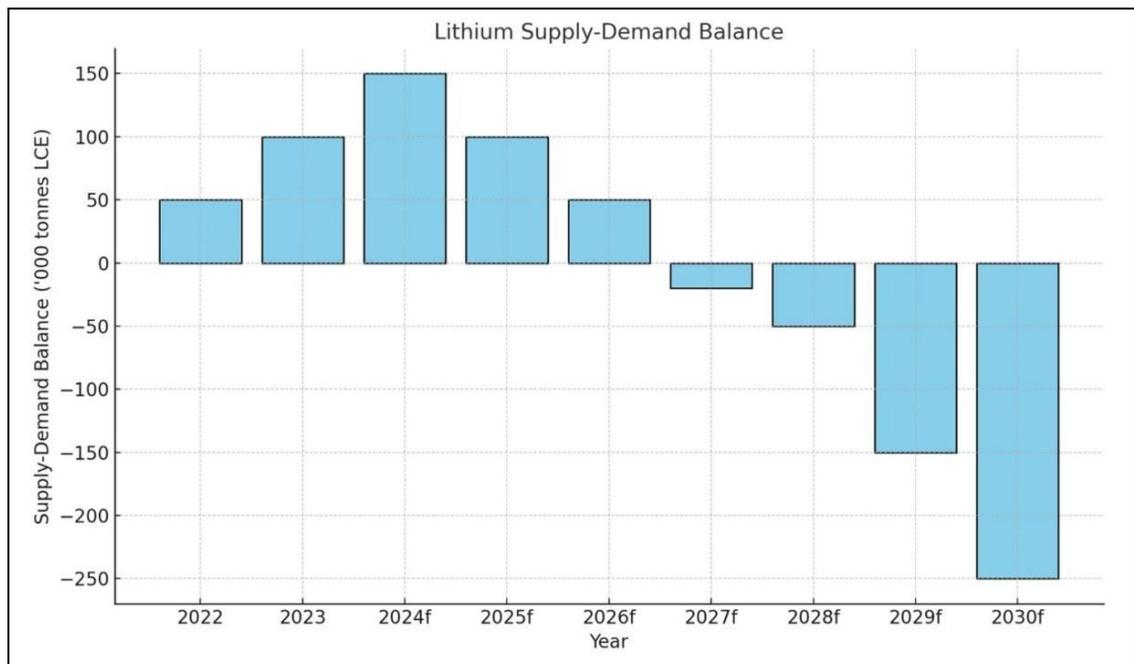
### 19.1 Market Studies

#### 19.1.1 Lithium

Various sources exist for information on the lithium market and prices forecasts. The QP has relied primarily on the most recent market data and price forecast from Fastmarkets, (Fastmarkets, 2024) Benchmark (Benchmark Mineral Intelligence, 2025), and DOB Energy (DOB Energy, 2024), widely recognized sources of lithium commodity research.

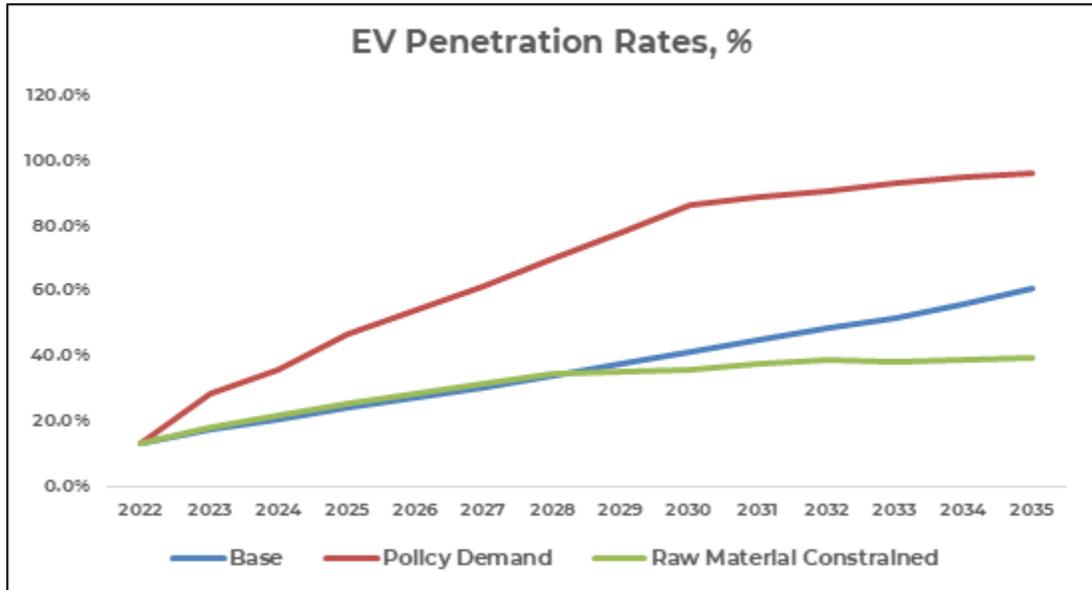
##### 19.1.1.1 Lithium Supply and Demand

According to Fastmarkets, the primary use of lithium driving demand will continue to be for lithium-ion batteries used in the electric vehicle (EV) battery market. Benchmark forecasts that battery demand will grow to represent 95% of all lithium usage by 2040. This growth in demand will drive the demand for lithium consumption will create a deficit in Lithium Supply towards the end of 2026 which will increase upward price pressure. A significant negative supply balance by 2030 should significantly push the lithium price upward. (Figure 19-1).



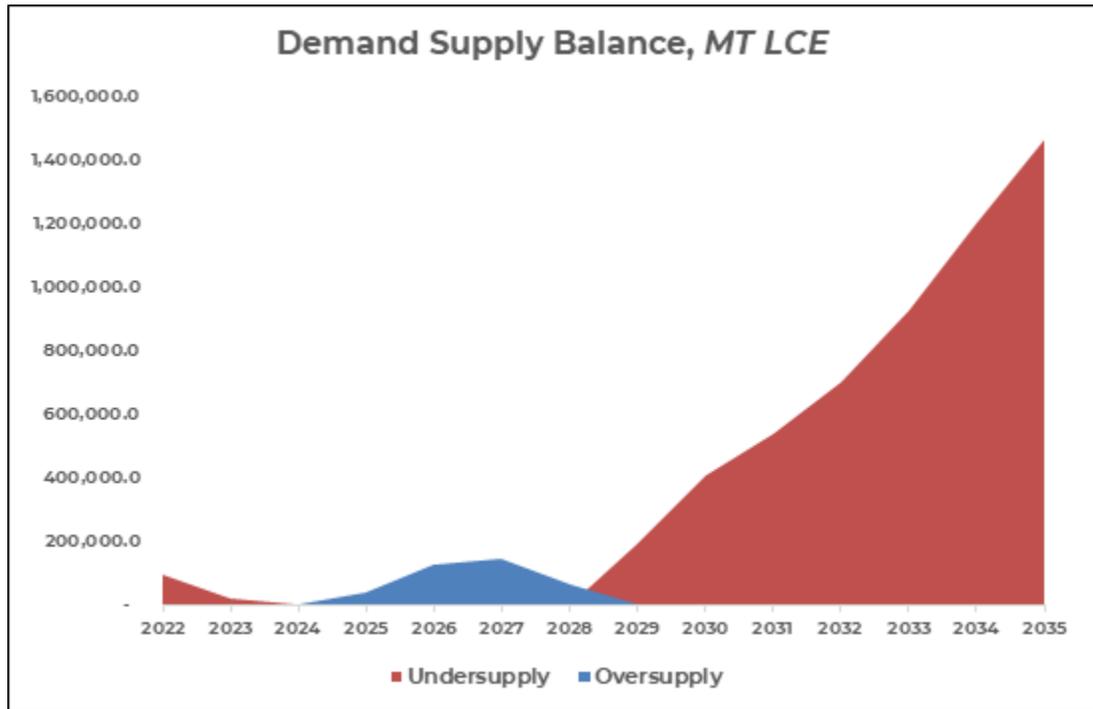
**Figure 19-1: Lithium Carbonate Demand (Source: Fastmarkets, 2024)**

Worldwide, the transition to EVs and lithium-ion batteries is progressing, increasing the demand for lithium. The base case penetration rates for electric vehicles are forecast by Benchmark to outpace lithium supply from 2030 onwards unless additional lithium supply can be identified, use is reduced through technological advancements, or alternative technologies developed (Figure 19-2).



**Figure 19-2: EV Penetration Rates (Source: Benchmark, 2023)**

In the near-term, the lithium market is expected to be in oversupply from 2024 through to 2027. Over the long term, from 2028 onwards, the market is expected to be undersupplied as the adoption of EVs and use in stationary battery storage increases and exceeds the ability of existing producers and new projects to meet demand (Figure 19-3).



**Figure 19-3: Lithium Carbonate Demand Supply Balance (Source: Benchmark, 2023)**

### 19.1.2 Sodium Hydroxide

Sodium hydroxide is a product of the chlor-alkali process along with hydrochloric acid. Based upon the Project’s material mass balance, it is expected that surplus sodium hydroxide will be produced and available for sale.

An on-site chlor-alkali facility is intended to supply a significant portion of the Project’s hydrochloric acid and sodium hydroxide requirements, thereby reducing exposure to external reagent supply and pricing variability. Excess sodium hydroxide production may be available for sale, providing potential by-product revenue; however, the Project’s base-case economics do not rely on such sales.

The QP relied on data from market studies conducted for Century by Global Exchange (Bistolas, 2024), a US based research firm specializing in market data of chlor-alkali products.

#### 19.1.2.1 Sodium Hydroxide Supply and Demand

The global sodium hydroxide market was valued at approximately \$41 billion in 2025 and is projected to grow at a compound annual growth rate (CAGR) of approximately 4.6% through 2035. Global production volume was estimated at approximately 80 million tonnes in 2024, with the United States maintaining approximately 14% of global production capacity. The US

market reached approximately 21 million tonnes in 2024, with leading producers including Olin Corporation, Westlake Corporation, OxyChem (Occidental Petroleum Corporation), and Formosa Plastics Group.

In the sodium hydroxide market, there are two primary product types transported: a liquid form, typically a 50-50 solution of sodium hydroxide and water, and dry form, sold in pearl or flake, which is 100% sodium hydroxide. Prices are typically given in percent sodium hydroxide by weight, measured in dry short tons (dst) or dry metric tonnes (dmt).

In the Western US, the primary markets for sodium hydroxide include pulp and paper manufacturing, water treatment (both industrial and municipal), manufacture of sodium hypochlorite (bleach), mining, and agriculture. Total US domestic manufacturing of sodium hydroxide was approximately 11.6 million dmt in 2019. Total US consumption in 2019 was approximately 6.0 million dmt, reflecting 11.6 million dmt of production less 6.4 million dmt in exports plus 0.8 million dmt of imports. Historically, growth in US consumption is closely linked to growth in US Gross Domestic Product.

The Western US market relies heavily on imports of sodium hydroxide. Imports, primarily from Asia, arrive through ports at Long Beach, Los Angeles, and Richmond, California, and Vancouver, BC, and are transported by rail or truck inland. In 2023, imports for the four West Coast ports totaled 510,412 dmt. as summarized Table 19-1.

**Table 19-1: West Coast Imports of Sodium Hydroxide**

<b>Port</b>	<b>2023 Imports (dmt)</b>
Long Beach	85,284
Los Angeles	173,517
Richmond	75,190
Vancouver	176,421
<b>Total</b>	<b>510,412</b>

The demand for sodium hydroxide is closely linked to the general economy and expected to grow linearly with the US economy and population. It is forecasted that the US will need new capacity as growth in China increases and absorbs Asian supply and US plants are forced to close or upgrade from older technology.

Potential competition for sales in the Western US is from three identified producers and imports from Asia. The largest regional producer is in Vancouver and produces 230,000 dmt annually which is consumed in pulp and paper manufacturing. The other two producers, located in Washington State and California, have combined capacities of less than 160,000 dmt annually. Competition from these sources would be on par with imports arriving on the west coast.

## 19.2 Product Quality Requirements and Pricing

### 19.2.1 Lithium

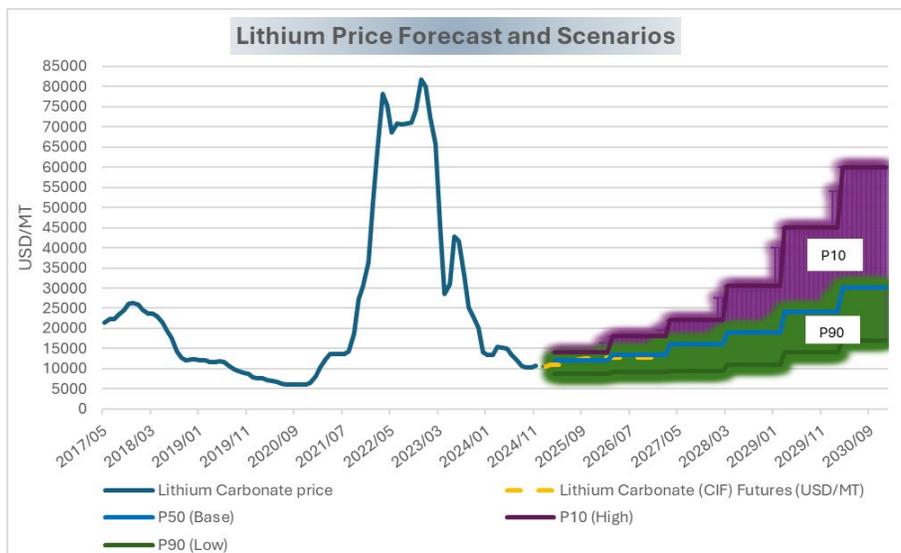
#### 19.2.1.1 Quality Specifications

Purchasers of lithium products vary in their requirements for quality and end use. The typical arrangement for producers is through offtake agreements which may specify the quantity and quality of the mine product. Lithium products exceeding 99.5% purity are generally recognized as battery quality. It is anticipated that the lithium carbonate produced by the Project will exceed this level. Other requirements on purity and quality of the material are subject to the specifications of customers.

#### 19.2.1.2 Lithium Pricing

During 2025, prices for lithium products were volatile and fell to five-year lows of under \$10,000/t. To meet the growth in long-term demand, it is recognized that higher cost production will need to be brought online and higher lithium prices will be needed to support the development of new sources of supply.

As of the first quarter of 2025, DOB Energy forecasts the average medium-term (supply-demand based) price for lithium carbonate at \$10,000 to 14,000/t, for the years 2025 to 2027, and the long-term (incentive) price to average approximately \$25,000/t to \$30,000/t in the 2033 to 2040 timeframe (Figure 19-4).



**Figure 19-4: Lithium Price Forecast (Source: DOB Energy, 2024)**

### **19.2.1.3 Clayton Valley Lithium Product**

A price of \$24,000/t for lithium carbonate is used for the base case in this Report. This price is selected as a forecast price from DOB Energy, which are in the range of \$25,000 to \$30,000/t over the duration of the Project through 2040. The sales price is free on board (F.O.B.) the Project site.

## **19.2.2 Sodium Hydroxide**

### **19.2.2.1 Quality Specifications**

Sodium hydroxide from the Project will be produced through modern membrane-based electrolysis and is expected to meet the specifications for membrane-grade sodium hydroxide. Provision in the Project is made to produce the surplus material in liquid form at 50 wt% NaOH.

### **19.2.2.2 Sodium Hydroxide Pricing**

The sodium hydroxide market in North America has exhibited relative price stability compared with other commodity chemicals. According to ChemAnalyst, US caustic soda prices stood at approximately \$529/dmt in December 2025, while IMARC reported prices in the range of \$379 to \$450/dmt depending on product form. West Coast prices historically trade at a premium to the US national average due to the region's reliance on imports and limited local production capacity. According to Global Exchange research, the sales price for sodium hydroxide in Q4 2023 was \$825 to \$880/dmt, F.O.B. West Coast tank storage.

Several factors are expected to support long-term price stability for sodium hydroxide: growth in Asian domestic consumption, particularly in China, is expected to absorb supply that currently flows as imports to the US West Coast; US domestic producers face requirements to upgrade older diaphragm and mercury cell plants to membrane technology to meet environmental standards, which may reduce domestic capacity during the transition period; and rising global shipping costs for chemical ocean freight are expected to increase the landed cost of imported product.

### **19.2.2.3 Clayton Valley Sodium Hydroxide Product**

A price of \$750/dmt for sodium hydroxide is used for the base case in this Report. This price is selected based on the outlook for supply and demand as assessed by Global Exchange and current market conditions and reflects a competitive position for the Project's product in the Western US market. The analysis below demonstrates that the \$750/dmt price provides substantial savings to inland Western US end-users compared with the current delivered cost of imported or domestically sourced sodium hydroxide. The \$750/dmt price selected is F.O.B.

the Project site and is supported by the following considerations:

### **Current West Coast Tank Storage Pricing**

According to Global Exchange research, the sales price for membrane-grade sodium hydroxide in Q4 2023 was \$825 to \$880 per dmt, F.O.B. West Coast tank storage (Long Beach, Los Angeles, Richmond, or Vancouver). Global Exchange indicates that prices above \$800/dmt F.O.B. West Coast tank storage should be sustainable over the long term. As of Q4 2025, US caustic soda prices ranged from approximately \$379/wt50% (liquid basis, per IMARC) to \$529/dmt (per ChemAnalyst), which on a 100% dry NaOH basis for 50% solution equates to approximately \$758 to \$1,058/dmt. Price-Watch reported US lye prices at approximately \$430 to \$490/wt50% (liquid basis, FOB Houston) in Q3 2025, equivalent to approximately \$860 to \$980/dmt on a 100% dry basis. These data confirm that the prevailing US market price for sodium hydroxide, expressed on a 100% dry metric ton basis, consistently exceeds \$750/dmt.

### **Inland Transportation Costs for Competing Supply**

End-users in the Western US interior including mining, water treatment, and industrial operations in Nevada, Utah, Arizona, and the broader intermountain region currently source sodium hydroxide from West Coast ports or Gulf Coast producers. The transportation of liquid caustic soda (50% NaOH) from port to inland destinations incurs significant costs that materially increase the delivered price above the West Coast tank rate.

### **Hazmat Classification and Regulatory Requirements**

Sodium hydroxide solution (UN 1824, Class 8 Corrosive) is classified as a hazardous material by the US Department of Transportation. This classification imposes substantial cost premiums on transport. Liquid caustic soda must be shipped in DOT-specification corrosive cargo tanks (MC-312/DOT-412) constructed from stainless steel with rubber or plastic linings. Carriers are required to maintain hazmat liability insurance coverage of up to \$5,000,000 (compared with \$750,000 for non-hazardous dry van freight). Drivers must hold CDL licenses with both hazmat (H) and tanker (N) endorsements (combined X endorsement), requiring background checks and specialized training. The dangerous goods classification increases shipping costs by approximately 15 to 30% compared with non-hazardous chemicals of equivalent volume and weight. (Bulk Connection, 2025)

### **Bulk Liquid Tanker Freight Rates**

Hazmat liquid bulk tanker rates in the Western US typically range from \$3.50 to \$5.00+ per round-trip mile for corrosive chemical cargo, reflecting the specialized equipment requirements (stainless steel insulated tanker trucks carrying approximately 5,500 gallons or 11.3 tonnes of 50% solution per load), mandatory tank wash procedures between loads, deadhead (return

empty) mileage that is typically built into the carrier's rate, and limited availability of qualified hazmat tanker carriers in the Western US. A standard stainless steel chemical tank truck carries approximately 5.65 dry metric tonnes of NaOH per load (11.3 tonnes of 50% solution). For representative inland delivery distances from West Coast ports to end-users in the intermountain West see Table 19-2.

**Table 19-2: West Coast Sodium Hydroxide Freight Costs**

Route	Distance (mi)	Roundtrip (mi)	Freight Cost (\$)	Cost (\$) dmt NaOH
Long Beach to Reno, NV	~470	~940	3,300–4,700	585–830
Long Beach to Tonopah, NV	~360	~720	2,520–3,600	445–640
Long Beach to Salt Lake City	~660	~1,320	4,620–6,600	820–1,170
Long Beach to Elko, NV	~570	~1,140	3,990–5,700	705–1,010
Houston to Reno, NV	~1,750	~3,500	12,250–17,500	2,170–3,100

Table 19-2: Estimated Inland Hazmat Tanker Transport Costs for 50% NaOH (per truckload of ~5.65 dmt NaOH, at \$3.50–\$5.00/round-trip mile)

### Total Delivered Cost to Inland End-Users

When the West Coast tank storage price of \$825 to \$880/dmt is combined with inland hazmat tanker freight, the total delivered cost of sodium hydroxide to a typical Nevada mining or water treatment customer currently ranges from approximately \$1,270 to \$1,710/dmt (for a Long Beach-to-Reno delivery) and potentially exceeds \$3,000/dmt for Gulf Coast-sourced product. Additional costs not captured in the above estimates include tank terminal storage and handling fees at West Coast ports (typically \$20 to \$50/dmt), demurrage charges for vessel or railcar delays, seasonal freight surcharges, and the cost of product quality degradation during extended storage and multi-modal handling. The Project's F.O.B. site price of \$750/dmt therefore represents a delivered price saving of approximately \$520 to \$960/dmt or more for end-users located in the central and northern Nevada region, compared with product sourced from West Coast tank storage.

### Competitive Positioning Versus Imports

Global Exchange anticipates that a sales price of approximately \$650/dmt, at approximately three-quarters the West Coast tank rate, would be sufficient for a new chlor-alkali plant in Nevada to compete with imports and US domestic supply. The selected price of \$750/dmt represents a modest premium above this competitive threshold, reflecting the advantages of local production including elimination of ocean freight, port handling, and the 15 to 30% hazmat trucking premium on long-haul deliveries. Chemical tanker availability for seaborne caustic soda transport has been tight, with rates elevated through 2025 and limited relief

anticipated before additional tanker orders are launched in 2026, further supporting the competitiveness of locally produced supply.

### **Regional Supply**

The Western US market is heavily dependent on imported sodium hydroxide, with over 510,000 dmt arriving through West Coast ports annually. Competition from regional producers is limited, with the three identified producers having combined output that is largely consumed in existing industrial applications. A locally produced supply of membrane-grade sodium hydroxide would offer end-users in the Western US a competitive domestic alternative with shorter supply chains and reduced exposure to global freight volatility.

### **Price Support**

The North American caustic soda market is characterized by balanced supply from major producers operating at moderate capacity utilization (75 to 85%). Energy costs represent 40 to 60% of total caustic soda production cost, providing a structural floor. As producers transition from older cell technologies to membrane processes under regulatory pressure, capital investment requirements and potential interim capacity reductions are expected to support pricing at or above current levels. The global sodium hydroxide market is projected to grow at a CAGR of approximately 4.6% through 2035, driven by increasing demand from alumina refining, water treatment, and chemical manufacturing.

### **Price Selection**

The \$750/dmt price falls within the range between Global Exchange's competitive floor of \$650/dmt and the West Coast tank rate of \$825 to \$880/dmt observed in Q4 2023. This price is below the current implied dry-basis US market prices of \$758 to \$1,058/dmt, and, importantly, is substantially below the total delivered cost to inland Western US end-users, which ranges from approximately \$1,270 to over \$3,000/dmt depending on origin and destination. The selected price represents a conservative assumption based on historical data and reasonable expectations for regional demand and sales.

## **19.3 Marketing Strategy**

### **19.3.1 Lithium**

Century does not have any offtake agreements for lithium from the Project or engaged in any formal offtake discussions. Through its pilot plant, Century has produced battery-quality lithium carbonate which it has provided to battery makers. These battery makers have been successful in using our lithium carbonate product in their battery manufacture with off-take to the parties in discussion. Under the present regulatory environment, it is anticipated there will be support for domestically produced lithium in the US and encourage domestic sales of the lithium produced from the Project.

### **19.3.2 Sodium Hydroxide**

Century has a non-binding MOU with Orica Limited for the sale of sodium hydroxide from the Project which is anticipated to place a significant portion of the excess sodium hydroxide produced by Century. Century and Global Exchange anticipate that competitive pricing combined with regional demand will develop sufficient sales to place all surplus sodium hydroxide produced by the Project.

## **19.4 Contracts**

Century has no current sales agreements or contracts in place for mining, concentrating, smelting, refining, transportation handling, hedging, sale of lithium carbonate or sodium hydroxide products, or for the purchase or sale of any other commodities, resources or supplies except for the underlying royalty agreement described in Section 4.

## **19.5 QP Comment on Section 19**

The QP has reviewed the price assumptions for lithium carbonate and sodium hydroxide and relevant market studies and considers the information an acceptable basis to support the price assumptions used in the Report. The QP examined other technical reports and publicly available information on commodity prices and markets to verify the information provided. The QP notes that the selected base case price of \$24,000/t for lithium carbonate is supported by multiple independent long-term price forecasts and falls within or below the range of incentive prices identified by reputable industry analysts for the Project's operational period. The selected base case price of \$750/dmt for sodium hydroxide is similarly supported by regional market analysis and represents a competitive position within the Western US market.

The QP notes that risks exist with commodity prices that may fluctuate based on economic conditions and with marketability of products that may be affected by unforeseen changes in the Project. The current lithium market is in a period of transition from cyclical oversupply toward anticipated structural deficit, and price volatility may persist in the near term. However, the long-term demand fundamentals driven by the global energy transition, electrification of transport, and growth in stationary energy storage remain intact and support the pricing assumptions adopted in this Report.

## **20.0 ENVIRONMENTAL, PERMITTING AND SOCIAL OR COMMUNITY IMPACT**

This section of the Report describes the environmental information collected for the Angel Island Project, the regulatory requirements for operations, potential impacts of the Project, and the requirements for reclamation and closure.

### **20.1 Environmental Assessment and Permitting**

#### **20.1.1 Baseline Studies**

Biological baseline surveys were conducted and reported in 2019, 2020, and 2023 (Stantec, 2020; Western Biological, 2023) in preparation for NEPA compliance.

The Stantec, 2020 report provides information related to natural resources (vegetation and wildlife) within Century's 2019 claim boundary. Since conducting these baseline surveys, Century has acquired additional unpatented mining claims, increasing the contiguous size of the Project Area.

Biological baseline surveys conducted by Western Biological in 2023 incorporated Century's unpatented mining claims within the larger Project Area. The Western Biological 2023 biological baseline report was submitted to the BLM in early January 2024, and approved in February 2024. A couple of additional features outside of the Project Area boundary will require that biological and cultural baseline surveys be conducted when those areas are ultimately defined.

Preliminary meetings were held with the BLM and other federal and state agencies to initiate the permitting process pursuant to the NEPA. As part of this process, Century has provided several of the required baseline survey reports to the BLM for review, comment and approval. The baseline kick-off meeting identified the following baseline studies that were required:

- Cultural Resources (field survey and report) – completed in 2023
- Paleontological Resources (desktop study) – completed in 2023
- Environmental Justice and Social and Economic Values (desktop study) – completed in 2024
- Geology/Minerals (waste rock characterization report and feasibility level pit slope design) – final reports to be incorporated into the PoO appendices
- Wildlife (updated 2020 field survey) – completed in 2023
- Threatened and Endangered Species (updated 2020 field survey) – completed in 2023
- Special Status Species (updated 2020 field survey) – completed in 2023
- Migratory birds and raptors (updated 2020 field survey) – completed in 2023
- Noise (desktop study) – completed in 2024

- Water Quality and Quantity (desktop study) – seep and spring desktop and field surveys completed in 2023, report completed in 2024, water source identification initiated
- Baseline Analytical Groundwater Model Report – completed in 2025
- Wetland/Riparian Zones (desktop study) – completed in 2023
- Floodplains (desktop study) – completed in 2024
- Noxious Weeds and Invasive Non-Native Species (updated 2020 field survey) – completed in 2023
- Soils – (updated 2020 field survey) - completed in 2023
- Vegetation – (updated 2020 field survey) - completed in 2023
- Forestry – Cacti (updated 2020 field survey) – completed in 2023
- Global Climate Change – data gathering initiated
- Air Quality – data gathering initiated
- Land Use – completed in 2024

#### **20.1.1.1 Climate**

The climate for the Project Area is hot during the summer months with high temperatures reaching above 37°C, and cooler winters that have average lows as cold as -8°C. Precipitation comes mainly with thunderstorms and can cause significant flooding, even miles from the site of the storm itself. Snowfall and other forms of precipitation are rare in Clayton Valley due to the rain shadow cast by the mountains to the west. Rarely does snow accumulate on the ground and provide coverage, and the high temperatures paired with low humidity create a high rate of evaporation and sublimation. Wind and dust storms are common throughout the year but are more frequent during the summer and fall.

#### **20.1.1.2 Surface Water**

The Angel Island Project is on an alluvial fan that slopes generally from southeast to northwest toward Angel Island and the Clayton Valley playa. Angel Island is a large outcrop on the west edge of the Project Area. There is no permanent water sources located within the project site, but several defined ephemeral drainages do cross the Project Area. The drainages in the area flow to the north or south of Angel Island to the Clayton Valley playa.

The annual average precipitation is 115.5 mm, with a 100-year, 24-hour peak event calculated at 61 mm. Due to the arid conditions, the ephemeral drainage only flows during significant precipitation events. The topography is flat to moderate, ranging in elevation from 1,330 to 1,420 amsl. Recharge to the basin from surface water is by precipitation and runoff, controlled by unnamed ephemeral drainages in alluvial washes and at mountain fronts.

### **20.1.1.3 Groundwater**

The Project is in the Clayton Valley Basin within the Cactus-Sarcobatus Flats Watershed. The Clayton Valley Basin is endorheic and bounded by mountain ranges. Groundwater recharge is mainly from water infiltration from the surrounding mountain ranges and inflows from the Big Smoky Valley and the Alkali Springs Valley, with potentially lesser flows from the Fish Lake Valley and the Lida Valley basins. As an endorheic basin, there is no surface outflow from the basin.

The Albemarle Corporation (Albemarle) operates a lithium mine in Clayton Valley, adjacent to the Angel Island Mine Project which has been in operation since the 1960s. Their operation processes brine pumped from underground sources to produce lithium carbonate and lithium hydroxide. Albemarle has rights to Brine Water Sources within a designated exclusion zone within Clayton Valley. Brine Water Sources are defined as underground water with greater than 5,000 mg/l of total dissolved solids. The exclusion zone includes most of the Clayton Valley Basin and extends north into Paymaster Canyon.

### **20.1.1.4 Water Quality**

The Project is at the base of a broad alluvial fan. The alluvial fans are fed by canyons and arroyos surrounding of the Project Areas and cover areas of several square kilometers. Minor fans radiate from the canyons to the north and south and contribute to the surface runoff. Surface runoff during significant precipitation events flows mostly northwest, around the Project area and onto the playa.

The quality of surface water (ephemeral flow) has not been determined but is expected to be of good quality except for high total suspended solids. Surface flow eventually either evaporates or infiltrates into the basin subsurface. Groundwater constituents in the basins are likely to be very high in total dissolved solids as documented by Albemarle and holes drilled into Clayton Valley. Century drilling completed on-site to date has not intersected the groundwater table and the open pit was designed to stay above the natural hydrostatic head.

### **20.1.1.5 Flora and Fauna**

Biological surveys were conducted in 2020 with a biological baseline report produced in late 2020 (Stantec, 2020). The biological baseline surveys were conducted in anticipation of BLM

requirements for permitting. The survey included identification of general habitats, identification of soil units, descriptions of vegetation and wildlife, and identification of special status species that have the potential to occur in or near the Project Area.

Five vegetation communities were mapped within the Project Area. Three special status plant species were observed including the sand cholla (State of Nevada protected species and BLM sensitive species), hermit cactus (State of Nevada protected species), and Joshua tree (State of Nevada protected species).

Wildlife surveys included specific surveys for the pale and dark kangaroo mice, both of which are BLM sensitive species, raptor nests within an approximately 16 km radius, and acoustic bat surveys. No pale or dark kangaroo mice were detected, five BLM sensitive bat species were recorded, and 82 nest sites (16 that were occupied) were observed within the survey area.

The findings of the biological baseline surveys conducted in 2023 agreed with the findings of the 2020 survey report. Additional BLM requirements included, digging of soil pits to confirm the 2020 findings, conducting pale and dark kangaroo mouse trapping in a new location, and conducting acoustic bat surveys near Angel Island. Results from the soil pits confirmed the units found in the 2020 report; no kangaroo mice of either species were trapped; and acoustic bat surveys indicated the presence of up to 10 different bat species. There was one active golden eagle nest confirmed during the raptor surveys, located at the south end of Angel Island.

Impacts to sensitive biological resources are expected to be minimal due to the limited sensitive resources in the area. Vegetation, including special status plant species, may potentially be impacted by ground disturbance. Mitigation measures may be implemented to minimize impacts to special status species, and any such measures will be identified during the NEPA process. Two raptor nests were identified in the western portion of the Project Area, but they should not be impacted by the operations.

### **20.1.2 Permitting**

Environmental permitting requirements for the Project are expected to be like other mines permitted in Nevada (Table 20-1). The two primary permitting agencies will be the BLM and the NDEP. There will be other agencies requiring permits and approvals, but the BLM and NDEP permits and approvals will require the most time for approval.

The BLM process includes several pre-planning and planning meetings to initiate the permitting process. Collection of baseline data is the first step in the BLM process, most of which has already occurred with no changes to the site thereafter. Several baseline data reports were submitted to the BLM for review and approval in 2023 and 2024. Following approval of the final baseline reports, the PoO and Reclamation Permit Application will be submitted. These documents will describe the proposed operation including background information, mining and processing descriptions, and a description of the reclamation plans for all facilities. Approval of the PoO, and the completion and approval of all baselines and supplemental

environmental reports (SERs) will initiate the NEPA process. The NEPA process requires an assessment of the potential impacts associated with the proposed operation and identified alternatives and the determination of potential measures to mitigate those impacts.

For projects of this size, the level of NEPA analysis required is typically an EIS. Initial and subsequent meetings with the BLM were completed during 2022, 2023, and 2024. The process is moving forward with the air emissions modeling remaining to be completed and submitted to the BLM for review and approval. The PoO has been drafted and is planned for submittal to the BLM in 2026, following completion and BLM acceptance of all baseline studies. After BLM accepts all of the baseline data, the PoO is finished. The BLM decides on the level of NEPA analysis required and the SERs which must be prepared for each resource that is present and potentially affected. The SERs will describe the affected environment and the anticipated impacts to those resources.

Compliance with NEPA, including EIS development, and issuance of the Record of Decision by the BLM is expected to take up to two years. However, due to many mining-friendly administrative actions that have occurred in 2025, the actual timeline to complete the EIS may be shorter than is normally expected.

**Table 20-1: List of Potential Permits and Approvals**

Permit/Approval	Granting Agency	Cost	Timeframe
PoO and NEPA Compliance (EA or EIS) <sup>1</sup>	BLM	Cost recovery agreement with BLM NEPA Compliance \$200K (EA) to \$4.0 million (EIS)	From PoO approval to Record of Decision (assuming EIS) – at least 18-24 months
EPA Hazardous Waste ID Number	US Environmental Protection Agency	None	
Class II Air Quality Operating Permit	NDEP/Bureau of Air Pollution Control	\$15,000 application fee \$7,500 renewal fee	up to 12 months Renew every 5 years
Surface Disturbance Permit	NDEP/Bureau of Air Pollution Control	\$5,000 for >500 acres disturbance	Estimated at 1 to 2 months (or faster)
Reclamation Permit	NDEP/Bureau of Mining Regulation and Reclamation	\$1.50/acre public land \$2.50/acre private land \$500 to \$16,000 annual fee	4 to 8 months
Water Pollution Control Permit	NDEP/Bureau of Mining Regulation and Reclamation	\$20,000 application fee \$250 to \$20,000 annual fee	6 months average
Solid Waste Class III Landfill Waiver (Part 1 & 2)	NDEP/Bureau of Waste Management	\$5,000 application fee \$5,000 annual fee	90 to 120 days
Permit to Appropriate Waters	Nevada Division of Water Resources	TBD	
Industrial Artificial Pond Permit	Nevada Department of Wildlife	\$125 annual fee up to \$10,000 annual operating fee depending on tons processed	30+ days
On-site Sewage Disposal System	NDEP/Bureau of Water Pollution Control	\$400 - \$600 application fee for general permit depending on capacity	30 to 60 days
Hazardous Materials Permit	Nevada State Fire Marshal and State Emergency Response Commission	Basic fee \$150 Additional fee based on chemicals stored on-site	Required 30 days from start of operations and renewed annually

EA: Environmental Assessment

## **20.2 Socioeconomic and Community Relations**

Much of the economy in Esmeralda County and adjacent counties is based on exploration and mining activity. This includes the existing Albemarle operation in Clayton Valley and other active and proposed mining operations in the region. Socioeconomic considerations associated with the proposed operation will be addressed prior to and during baseline data acquisition for the NEPA process. Generally, additional mining in the area will have a positive impact on the economy of the county and region. Potential risks to the socioeconomic resources would be the ability of the local infrastructure to adequately support the added workforce in the area.

Several avenues for addressing community relations will be advanced by Century with some assistance from the permitting agencies. Required consultation with Native American Tribes is conducted as a government-to-government process; thus, the BLM would conduct this consultation. Other community relations activities occur during public scoping and public comment periods associated with the NEPA process. There are also public comment periods during the WPCP and Reclamation Permit processes. Additionally, presentations to the Esmeralda County government as well as potential presentations to tribal governments will be part of Century's public outreach activities.

Currently, community relations activities are limited to on-site and off-site Company personnel conducting business while employing best management practices. Century has had a local presence with an administrative office at the Tonopah airport since 2021, and uses community resources, including local business for supplies, lodging, labor, restaurants, and other items required during development at the Project. In 2025, the Company anticipates additional forms of community involvement to be organized to help inform the local community of Project plans and the potential benefits.

The BLM has placed significant emphasis on socio-economic resources due to several large potential projects in the area including mining, renewable energy and construction projects. The primary concern for the BLM is impacts to infrastructure and services during potentially overlapping development and operations activities.

## **20.3 Reclamation and Closure Activities**

The overall objective of reclamation and closure is to provide chemical and physical stability of the mine facilities that will remain, including the TSF, WRSFs, roads, ponds, and partially backfilled pit. For the Reclamation Permit, assumptions include decommissioning and demolition and/or removal of all on-site buildings. The reclamation and closure approach proposed for the Project has several key concepts that provide the basis for this plan throughout the facility's operational life. These concepts include:

- Designing facilities with reclamation and closure in mind
- Concurrent reclamation when possible

- Backfilling portions of the open pit
- Managing operations to minimize environmental impacts
- Salvaging soil resources for future use where possible.

Salvage of alluvial or soil material to be later used as growth medium will occur during initial construction activities. Stockpiling of alluvial material may occur throughout the area, but defined locations have not been determined yet. This material will be used as cover/growth media for the TSF, WRSFs, and other facilities during reclamation. Reclamation progress must be monitored, at a minimum, during the first three years after completion. Post-closure monitoring of the site will continue for a minimum of five years after closure but may be required for a longer period based on requirements of the BLM and NDEP.

The following sections provide a conceptual-level description of reclamation and closure methods for the mine's larger components.

### **20.3.1 Roads**

Both haul roads and access roads, without a defined post-mining use, will be reclaimed when they are no longer needed for access. The primary reclamation objectives for roads will be long-term stabilization and surface water management. Roads will be scarified to breakup consolidation and then recontoured to blend with surrounding topography. Berm material will be pulled back onto roads and then seeded. Roads cut into hillsides will be reclaimed by pulling up the cut material on the downgradient slope to fill the road cut. Following final grading, the reclaimed area will be seeded with an agency approved seed mix.

### **20.3.2 Facilities**

Structures and facilities located on public land will be decommissioned and demolished or removed from site. Some facilities may temporarily remain to facilitate mine closure, including the administrative building and shop areas. Salvageable materials and equipment will be removed from the site for salvage or reuse. Demolition debris may be placed in the on-site landfill if material meets the characterization criteria for a Class III waived landfill. Materials that do not meet the Class III waived landfill criteria, including hazardous waste, will be hauled from the site, and disposed of at a properly licensed waste facility.

Building foundations will generally be broken and buried. Due to limited amounts of growth media, it will be placed where deemed most useful and then seeded.

### **20.3.3 Process Ponds**

Closure and reclamation of lined process solution ponds (seepage collection and process water ponds) will include testing of any sludge, and based on characterization, the removal and proper disposal of the sludge, followed by cutting and folding the liner into the pond, backfilling the pond, and seeding.

### **20.3.4 Tailings Storage Facility**

Closure and reclamation of the dry stack TSF (surface and in-pit) will focus on minimizing infiltration. Surfaces will be graded to shed precipitation and a soil cover placed to both minimize infiltration and provide growth media for vegetation. The cover depth and material will be determined in coordination with the NDEP. In addition, the seepage collection ponds may be converted to evaporation basins to allow the seepage to evaporate, thus eliminating active management of any seepage. Due to the use of dry stack tailings and low precipitation in the area, seepage is expected to be minimal. Thus, if the seepage ponds are converted to evaporation cells, this activity is anticipated to occur shortly after active operations cease.

### **20.3.5 Waste Rock Storage Facilities (WRSF)**

The closure and reclamation of any remaining WRSF material will include grading the surface and slopes to promote runoff from the surface, placing a soil cover, and seeding. Cover material will serve as growth media for vegetation and minimize infiltration of precipitation. The NDEP requires a 3:1 horizontal to vertical angle of repose at closure. Concurrent reclamation will construct WRSF during waste removal operations so as to minimize the need to doze and level WRSF piles after operations cease.

### **20.3.6 Pits**

Approximately half of the pit will be backfilled with dry stack tailings during operations. The remaining portion of the pit will be left open. Safety berms or fencing will be placed around the pit perimeter to limit public access. The pit depth is expected to be above the groundwater table; thus, a pit lake will not form. Ingress and egress access to accommodate wildlife will be constructed.

### **20.3.7 Stormwater Drainage Control Structures**

Stormwater diversion channels upgradient of the mine facilities will remain in place upon the cessation of operations. Generally, diversion channels would be designed for closure, so modifications to diversion channels are not anticipated.

### **20.3.8 Post-Closure Monitoring and Maintenance**

Post-closure monitoring and maintenance will continue for a period based on agency requirements. Monitoring will include stability (erosion) monitoring, revegetation monitoring, and water quality monitoring.

### **20.3.9 Mine Reclamation Cost Estimate**

A conceptual level reclamation plan and cost estimate have been developed. A formal reclamation plan and cost will be developed for the Reclamation Permit application process. However, based on the current design, the SRCE was used to develop a preliminary reclamation cost estimate of \$13.4 million. The SRCE was developed by the BLM and NDEP as a standard method to calculate reclamation and closure costs. The cost data used in the SRCE is updated annually by the BLM and NDEP.

## 21.0 CAPITAL AND OPERATING COSTS

### 21.1 Summary

This capital cost estimate is classified as a Class 3 estimate in accordance with AACE International Guidelines Practice No. 47-R-11 (AACE International, 2020) with an accuracy expected to be within +/-15% range of final project cost including contingency.

Responsibility for each area of the capital cost estimate is as follows:

- Mining GRE,
- Processing Continental Metallurgical Services, Century
- Chlor-alkali plant Hargrove Engineers
- Lithium production Hargrove Engineers, Century
- G&A Century
- Owner's Costs Century

Costs for equipment and materials are based on vendor pricing from 2026.

The total capital cost for the Project is \$1,657.6 million, phased over the first five years as shown in Table 21-1. Project Phase 2 capital costs represent the expansion of the process facilities and infrastructure established in Project Phase 1.

Sustaining capital is required for mining equipment replacement and tailings facility expansion. The total sustaining capital is estimated at \$16.7 million over the life of the Project.

Operating costs were estimated for mining, process and G&A. Over the LOM, the operating costs will average from \$30.59/t of plant feed in Project Phase 1 to \$22.16/t in Project Phase 2.

**Table 21-1: Capital Cost Estimate Summary**

Description	Cost (\$M)	
	Project Phase 1 (Initial)	Project Phase 2 (Years 5)
	7,500 t/d	Expansion to 15,000 t/d
Mining	23.5	43.7
Site Preparation and Roads	3.0	4.5
Process Facilities	611.6	341.1
Infrastructure	167.5	135.2
Working Capital	14.0	0.0
Owner's Costs	88.2	62.8
EPCM	24.1	19.5

Description	Cost (\$M)	
	Project Phase 1 (Initial)	Project Phase 2 (Years 5)
	7,500 t/d	Expansion to 15,000 t/d
Freight	4.7	3.4
Cap Cost Contingency	60.7	50.0
<b>Total Capital Costs</b>	<b>997.4</b>	<b>660.2</b>

Note: Figures may not sum due to rounding.

## 21.2 Capital Costs

### 21.2.1 Basis of Estimate

#### 21.2.1.1 Summary

This section outlines the process behind developing the initial estimate of 7,500 t/d for the base case. The remaining scope of work, including capital cost expenditures related to mobilization, demobilization and working around existing operations, was allocated to Project Phase 2 at 15,000 t/d.

The basis of estimate has been developed in accordance with the following documents:

- Project scope of facilities
- Process design criteria
- Process mass flow sheets
- Equipment list
- Preliminary general arrangement drawings (GAs)
- Preliminary site layouts
- Preliminary electrical review
- Geotechnical report
- Discipline material take-offs (MTOs)
- Budget quotations from vendors for process equipment (updated to Q4 2025)
- Cost review using InfoMine using updated yearly data
- MTOs/estimates as provided by Century, GRE and/or other third parties
- Regional climatic data
- Historical in-house data
- Documents and information as provided by Century
- Project execution plan
- Project schedule.

### 21.2.1.2 Quantity Development Basis

Quantities were organized by area and disciplinary types.

Engineering MTOs were based on estimated quantities derived from project calculations. Conceptual quantities were prepared based on historical percentage of capital cost.

### 21.2.1.3 Labor Assumptions

Wage rates for construction crews have been established using rates provided by Century. Base unit labor work hours and rotations are based on 40 hours per week or five days at eight hours per day with an allowance for overtime. Labor rates were reviewed against historical data as to cost and percentage of capital.

## 21.2.2 Direct Costs

### 21.2.2.1 Mine Capital Costs

Mine development costs include access and haul roads, earthworks for preparation of stockpile and equipment pads, and construction of liners for both the stockpiles and TSF. Estimates are reviewed and developed from calculated earthwork volumes, equipment productivities, and equipment operating costs.

The estimates for mine production and support equipment are derived from vendor quotations for major items (such as CAT, etc.).

The category of other mining supplies and equipment encompasses surveying equipment, computers, software, plotters, and radios. These items are estimated based on internal data and experience. Additionally, the estimate includes allowances for initial consumables such as diesel fuel and tires. The initial estimate for diesel fuel is based on one month of usage in operating costs.

A breakdown of these costs is presented in Table 21-2.

**Table 21-2: Mine Capital Costs**

Description	Project Phase 1 (\$M)	Project Phase 2 (\$M)
Mining Equipment	22.6	38.5
Other Mining Related Supplies	0.7	5.2
Mine Consumables	0.2	-
Mine Development	3.0	4.5
<b>Total</b>	<b>26.5</b>	<b>48.2</b>
<b>% of Total Direct Costs</b>	<b>3%</b>	<b>7%</b>

### 21.2.2.2 Site Preparation and Roads

Site preparation and roads costs include the cost of the new access road to site. A breakdown of these costs is presented in Table 21-3.

**Table 21-3: Site Preparation and Roads Capital Costs**

Description	Project Phase 1 (\$M)	Project Phase 2 (\$M)
Site Development	5.8	0.8
<b>Total</b>	<b>5.8</b>	<b>0.8</b>
<b>% of Total Direct Costs</b>	<b>0.6%</b>	<b>0.1%</b>

### 21.2.2.3 Process

Mined material handling costs include sizing, conveying, stockpiling, reclaim and attrition scrubbing. Mineral processing costs include leaching; tailings dewatering and handling; polish filtration; lithium ion exchange (including impurity removal); solids residue dewatering, softening ion exchange and reverse osmosis; lithium production, which includes deleterious element removal, lithium concentration, precipitation and preparation; lithium carbonate product handling and packaging (including storage and distribution); chlor-alkali processing; reagents; and process services (including piping for each area, water supply tanks and management, fuel storage and distribution and ventilation for the process plant). A breakdown of these costs is presented in Table 21-4.

**Table 21-4: Process Capital Costs**

Description	Project Phase 1 (\$M)	Project Phase 2 (\$M)
Feed Prep	10.2	2.6
Leaching	12.6	6.3
Tailings Filtration/Handling	37.9	33.6
Lithium Recovery	66.0	34.2
Chlor-alkali Plant/Acid Production	481.5	256.8
Process Plant Services (Steam, Air, Fuel, etc.)	0.0	0.0
<b>Total</b>	<b>608.2</b>	<b>333.6</b>
<b>% of Total Direct Costs</b>	<b>61%</b>	<b>51%</b>

#### 21.2.2.4 Tailings Storage Facility

The TSF is scheduled to be developed in six TSF phases (in line with the pit phases) over the mine life. Initial capital costs (Table 21-5) are based on TSF phase 1A works and include earthworks and installation of the following TSF elements:

- Geomembrane liner
- Over liner drainage system
- Lined over liner collection ponds and event ponds
- Stormwater diversion channel system.

**Table 21-5: Tailings Storage Facility Capital Costs**

Description	Project Phase 1 (\$M)	Project Phase 2 (\$M)
Tailings Storage Facility	3.4	3.0
<b>% of Total Direct Costs</b>	<b>0.3%</b>	<b>0.5%</b>

Note: Future phases of the TSF (1B to 6) are included in the sustaining capital cost.

#### 21.2.2.5 On-site Services and Utilities

On-site services and utilities cost comprise power supply and distribution. A breakdown of these costs is presented in Table 21-6.

**Table 21-6: On-site Services and Utilities Capital Costs**

Description	Project Phase 1 (\$M)	Project Phase 2 (\$M)
Power Supply and Distribution	180.8	71.4
<b>Total</b>	<b>180.8</b>	<b>71.4</b>
<b>% of Total Direct Costs</b>	<b>23%</b>	<b>24%</b>

#### 21.2.2.6 Buildings and Facilities

Buildings and facilities costs are included in the individual area and include the following:

- Administration/office building
- Truck maintenance/mine shop (including truck wash/repair/tire change)
- Mill dry/offices/lunchroom
- First aid building/emergency vehicle storage
- Assay/metallurgical laboratory
- Process warehouse
- Gatehouse/security and weigh scale.

### **21.2.3 Indirect Costs**

Construction indirect field costs are based on the proposed construction execution plan after reviewing the overall project scope and schedule of just over 18 months for the base case (7,500 t/d).

The engineering and procurement (EP) estimate encompass the home-office-based engineering services for designing and procuring equipment related to the process and associated infrastructure. Additionally, it includes home office health, safety and environmental, human resources, document control, accounting, information technology, vendor inspection and expediting, contract administration and estimating. Engineering and procurement for the Project is calculated at 7.7% of direct field costs.

The construction management (CM) estimate covers field or site-based services required to construct the facilities within the scope described. Staff who are assigned to the field office are included in the estimate with the assumption that they will be housed off-site in the local community. Construction management for the Project is calculated at 8% of direct field costs.

All temporary buildings, services and utilities required during construction and commissioning are estimated based on durations from the construction schedule and actual costs or in-house data.

Inland freight estimates for material and equipment without quoted freight costs are based on a percentage factor of the material supply costs that required transport to site.

Start-up and capitalized spares are based on an allowance of 3% of plant equipment supply price.

Plant first fill includes such items as HCl, sodium hydroxide, lithium resin, WAC resin, chelating resin, cartridge filters and RO membranes. A cost of \$39.6 million, based on the quantities required, is included in the estimate.

The cost of commissioning assistance, by the EPCM contractor prior to handing over to operations is based on providing an allowance for a crew of 60 trade personnel as support over a period of one month. Technical staff during this period was included in the engineering and procurement estimate. Startup and commissioning spares are included spares.

Vendor representative costs are based on an allowance of 1.0% of mechanical equipment costs.

Total Owner's cost items are estimated and provided by Century as detailed in Table 21-7.

**Table 21-7: Owner's Costs**

Description	Project Phase 1 (\$M)	Project Phase 2 (\$M)
Owners Cost	88.9	35.2
Environmental and Permitting	3.4	0.0
<b>Total</b>	<b>92.3</b>	<b>35.2</b>

### 21.2.4 EPCM and Freight Costs

EPCM and Freight costs are identified for all non chlor-alkali processes and are identified in Table 21-8 below. The EPCM and Freight costs for the chlor-alkali plant were not broken out from the lump sum estimate and are included in the capital cost.

**Table 21-8: EPCM and Freight Costs**

Description	Project Phase 1 (\$M)	Project Phase 2 (\$M)
EPCM	24.1	19.5
Freight	4.7	3.4

Note: The EPCM and Freight costs from the chlor-alkali plant are not included here. Those costs were not separated from the Process Capital Costs and included in those costs.

### 21.2.5 Working Capital

Working capital equal to two months of Project Phase 1 operating costs totals \$14 million.

### 21.2.6 Contingency

Contingency is defined as a monetary provision additional to the base cost estimate intended to cover unforeseeable elements of cost, risk, and uncertainty within the defined scope of work as described in this Report.

Additionally, contingency only applies to what has been estimated, it does not account for any omission, missing items, project scope changes, scope creep, additions, modifications nor does it exist to cover any of the items listed within the exclusions (Section 21.2.6) or to be used as a Project fund for poorly performing areas.

The ranges used in the model are based on the quality of information. Budgetary pricing information for example received a tighter range of cost variability in the model than historical data or allowances which receive wider ranges. The ranges, minimum and maximum (worst case scenario/best case scenario) are based on an appropriate  $\pm$  value for each range of element to be analyzed. Each of these elements are based on a combination of formal assessment, historical results, and estimating judgment.

Contingency is calculated on all direct and indirect costs in the estimate with the exemption of any sunk costs, growth allowances, or separate contingencies such as project risk and schedule.

The contingency estimated for this project is 10%.

### **21.2.7 Exclusions**

The following items have been specifically excluded from the capital cost estimate, unless identified in Owner's costs:

- Cost of financing and interest during construction
- Operating costs (separate estimate)
- Reclamation
- Duties and taxes
- Changes in US federal and/or state law
- Site mitigation (identification and removal of contaminated soils from major oil and fuel spills, heavy metals, pesticides, asbestos solids, etc.)
- Any provision for force majeure events
- Systems operations and maintenance
- License and royalty fees
- Bonds
- Sunk costs
- Cost of permits
- Schedule delays.

## **21.3 Sustaining Capital Costs**

The basis for estimating the sustaining costs is similar to that used for estimating the initial capital costs in both methodology and the principles applied. Indirect costs, contingency, and Owners' costs were applied and added to the direct sustaining capital cost to arrive at the total sustaining capital cost.

Sustaining capital covers capital costs during mine operation after initial project construction and include considerations for mine equipment replacement, other support mobile equipment replacement and TSF expansion over six TSF phases. Annual sustaining capital costs are shown in Table 21-9.

Sustaining capital over the life of the Project is estimated at \$162.8 million. These costs are in addition to the expansion capital costs shown in Section 21.1.

**Table 21-9: Sustaining Capital Costs**

Area	Phase 1 Cost (\$M)	Phase 2 Cost (\$M)
Mining and Equipment Replacement	0.6	52.8
TSF Expansion	0	42.4
Other Mobile Support Equipment	0.2	67.6
<b>Total</b>	<b>0.8</b>	<b>162.8</b>

## 21.4 Operating Cost Estimates

### 21.4.1 Summary

The project operating costs have been developed from estimates of labor, operating and maintenance supplies, power, and fuel. The operation was sized to the nominal production rate of Project Phase 1 at 7,500 t/d. This information was then used to develop costs for Project Phase 2 at 15,000 t/d of processed material.

Responsibility for each area of the operating cost estimates is as follows:

- Mining                      GRE
- Processing                CMS/Hargrove
- G&A                        Century

The total annual operating cost is estimated to range an average from \$73.7 million for Project Phase 1 to \$121.4 million for Project Phase 2. Average operating cost estimates range from \$30.59/t for Project Phase 1 to \$22.16/t of plant feed for Project Phase 2 and summarized in Table 21-10.

**Table 21-10: Average Annual Operating Cost Summary**

Cost Area	Avg \$(000s)/a	Avg \$/t feed	Avg \$/t LCE	% of Total
<b>Project Phase 1</b>				
Mining	12,648	5.25	1,092	17
Process	22,272	9.24	1,829	30
Process (chlor-alkali plant)	33,254	13.79	2,730	45
G&A	5,583	2.32	458	8
<b>Total</b>	<b>73,757</b>	<b>30.59</b>	<b>6,110</b>	<b>100</b>
<b>Project Phase 2</b>				
Mining	20,056	3.66	685	17
Process	29,981	5.48	1,065	25
Process (chlor-alkali plant)	65,353	11.94	2,322	54
G&A	5,993	1.09	213	5
<b>Total</b>	<b>121,383</b>	<b>22.16</b>	<b>4,285</b>	<b>100</b>

Note: Figures may not sum due to rounding.

## 21.4.2 Mine Operating Costs

The estimated average annual mine operating cost ranges from \$12.6 million to \$26.5 million, or \$5.24/t to \$4.82/t.

Mine operating costs include stripping, excavation, waste and low-grade material handling, road, stockpile, and waste pile maintenance.

Supervision and technical staff are allocated based on experience of similar size and type of operation.

Mine operation and maintenance labor are allocated by operating area, piece of equipment and number of crew shifts required.

Labor rates by job function are based on typical current Nevada rates. A burden factor of 40% was applied to all hourly positions and 32% for all salaried positions to allow for benefits, holidays, vacations, sick leave, and payroll taxes.

Diesel and gasoline will be delivered to on-site fuel storage for use primarily by mine equipment. Diesel is assumed at cost of \$3.50/gal.

Mining production equipment hours are estimated from the equipment productivity estimates, the scheduled tonnages of plant feed and waste and the number of equipment required.

Mining support equipment hours are calculated from the number of pieces of equipment times the operating hours/day, assuming utilization of 90% and availability of 85%, times the operating days/year.

The mine operating costs are summarized in Table 21-11.

**Table 21-11: Average Annual Mining Operating Cost Summary**

Area	Avg \$(000s)/a	Avg \$/t feed
<b>Project Phase 1</b>		
Production Equipment	3,827	1.59
Support Equipment	1,745	0.72
Mine Labor	7,076	2.93
Backfill Equipment	0	0.00
Backfill Labor	0	0.00
Power	0	0.00
<b>Total</b>	<b>12,648</b>	<b>5.24</b>
<b>Project Phase 2</b>		
Production Equipment	7,059	1.29
Support Equipment	2,961	0.54
Mine Labor	8,509	1.55
Backfill Equipment	667	0.12
Backfill Labor	7,258	1.32
Power	0	0.00
<b>Total</b>	<b>26,454</b>	<b>4.82</b>

Note: Figures may not sum due to rounding.

### 21.4.3 Process Operating Costs

#### 21.4.3.1 Process Plant

The total annual operating cost for the process plant (excluding the CA plant) starts at approximately \$18.7 million, equivalent to \$1,536/t LCE for Project Phase 1 and increases to approximately \$25.9 million, equivalent to \$921/t LCE for Project Phase 2.

Table 21-12 provides a summary of the estimated operating costs for the process plant by cost center. The summary estimate includes labor, energy consumption, supplies (operating and maintenance), mobile equipment, laboratory, and TSF.

**Table 21-12: Summary of Process Plant Operating Costs per Year**

Cost Area	Avg \$(000s)/a	Avg \$/t feed	Avg \$/t LCE
<b>Project Phase 1</b>			
Power Consumption	2,084	0.86	171
Reagents	3,032	1.26	249
Labor	8,460	3.51	695
Mobile Equipment	1,021	0.42	84
Laboratory	514	0.21	42
Maintenance Materials	3,590	1.49	295
<b>Total</b>	<b>18,702</b>	<b>7.75</b>	<b>1,536</b>

Cost Area	Avg \$(000s)/a	Avg \$/t feed	Avg \$/t LCE
<b>Project Phase 2</b>			
Power Consumption	3,971	0.73	141
Reagents	6,016	1.10	214
Labor	8,717	1.59	310
Mobile Equipment	1,733	0.32	62
Laboratory	509	0.09	177
Maintenance Materials	4,983	0.91	177
<b>Total</b>	<b>25,930</b>	<b>4.74</b>	<b>921</b>

Note: Figures may not sum due to rounding.

### 21.4.3.2 Chlor-alkali Plant

The total annual operating cost for the chlor-alkali plant starts at approximately \$33.2 million, equivalent to \$2,730/t LCE for Project Phase 1 and increases to approximately \$65.4 million, equivalent to \$2,322/t LCE for Project Phase 2.

Table 21-13 provides a summary of the estimated operating costs for the chlor-alkali plant by cost center. The summary estimate includes labor, energy consumption, supplies (operating and maintenance), and utilities.

**Table 21-13: Summary of Chlor-alkali Plant Operating Costs per Year**

Cost Area	Avg \$ (000s)/a	Avg \$/t feed	Avg \$/t LCE
<b>Project Phase 1</b>			
Feed Stock	22,609	9.37	1,856
Consumable Materials	1,742	0.72	143
Utilities	2,394	0.99	197
Staffing	2,685	1.11	220
Maintenance	3,824	1.59	314
<b>Total</b>	<b>33,254</b>	<b>13.79</b>	<b>2,730</b>
<b>Project Phase 2</b>			
Feed Stock	45,029	8.22	1,600
Consumable Materials	3,843	0.70	137
Utilities	4,885	0.89	174
Staffing	2,960	0.54	105
Maintenance	8,637	1.58	307
<b>Total</b>	<b>65,353</b>	<b>11.94</b>	<b>2,322</b>

Note: Figures may not sum due to rounding.

### 21.4.3.3 General and Administrative Operating Costs

G&A labor costs are based on 14 full-time equivalent employees including management, environmental, human resources, security, finance, procurement and logistics, community relations and services.

The G&A expenses include costs related to health, safety, security and environment, community, communications, information technology, office supplies, freight, training, travel, land holding leases and water rights, human resources, janitorial, insurances, licenses, taxes and legal.

G&A costs are based on the base case 7,500 t/d production rate and a cost adjustment for expenses for Project Phase 2 was included in the financial model.

A summary of the estimated G&A costs is shown in Table 21-14.

**Table 21-14: Summary of G&A Annual Costs**

Description	Avg \$(000s)/a	Avg \$/t feed	Avg \$/t LCE
<b>Project Phase 1</b>			
Labor	1,939	0.80	159
Expenses	3,549	1.47	291
<b>Total</b>	<b>5,488</b>	<b>2.28</b>	<b>451</b>
<b>Project Phase 2</b>			
Labor	1,924	0.35	68
Expenses	3,908	0.71	139
<b>Total</b>	<b>5,832</b>	<b>1.07</b>	<b>207</b>

Note: Figures may not sum due to rounding.

## 22.0 ECONOMIC ANALYSIS

### 22.1 Cautionary Statement

The results of the economic analyses discussed in this section represent forward-looking information as defined under Canadian securities law. The results depend on inputs that are subject to a number of risks, uncertainties and other factors that may cause actual results to differ materially from those presented here. Information that is forward-looking includes the following:

- Mineral Resource and Mineral Reserve estimate
- Assumed commodity prices
- The proposed mine production plan
- Projected mining and process recovery rates
- Proposed processing method
- Proposed capital and operating costs
- Assumptions as to environmental, permitting, and social risks.

Additional risks to the forward-looking information include the following:

- Changes to costs of production from what are estimated
- Unrecognized environmental risks
- Unanticipated reclamation expenses
- Unexpected variations in quantity of mineralized material, grade, or recovery rates
- Geotechnical or hydrogeological considerations during mining being different from what was assumed
- Failure of mining methods to operate as anticipated
- Failure of plant, equipment, or processes to operate as anticipated.

### 22.2 Financial Model Assumptions

The financial analysis was based on: royalty agreements described in Section 4; the Mineral Resources presented in Section 14; the mine and process plan and assumptions detailed in Sections 16 and 17, respectively; the projected infrastructure requirements outlined in Section 18; the lithium carbonate and sodium hydroxide price forecasts in Section 19; the permitting, social and environmental regime discussions in Section 20; and the capital and operating cost estimates detailed in Section 21.

All costs within the financial model are expressed in first-quarter 2026 US dollars.

Responsibilities for the model assumptions and economic analysis are as follows:

- Mine Production, Capital & Operating Costs      GRE
- Processing Capital & Operating Costs      CMS
- G&A and Owners Costs      CMS/Century
- Owner's Costs, Commodity Prices & Royalties      Century

## **22.3 Methodology Used**

The economic analysis of the Project was completed using a DCF model developed on Microsoft Excel using only the first 40 years of Project life.

The Feasibility Study outlines a 62-year mine life based on Proven and Probable Mineral Reserves. For valuation purposes, the discounted cash flow model reflects the first 40 years of production, as cash flows beyond Year 40 contribute minimally to NPV at an 8% discount rate. The remaining reserves remain mineable and are included in the Life-of-Mine plan.

Cash flows in the model were based on 2025 US dollars with no escalation of costs or revenues. The DCF model uses a base-case discount rate of 8%. Financing costs were excluded from the valuation.

## **22.4 Capital Costs**

Capital costs are summarized in Section 21.

The analysis accounts for lithium carbonate production and sodium hydroxide sales from the Project. Rather than treating sodium hydroxide as a separate revenue stream, the economic model reflects its production and sale through a proportional reduction in operating costs attributable to the by-product.

## **22.5 Operating Costs**

Operating costs are summarized in Section 21.

### **22.5.1 Price**

The price for lithium carbonate product used in the economic model is \$24,000/t (2025 dollars) with no escalation and assumes free on board (FOB) project site, as discussed in Section 19.

The project has potential to generate additional revenue from by-product sales of sodium hydroxide which is produced in surplus from Project's the chlor-alkali plant. The price for sodium hydroxide is assumed at \$750/dmt, as discussed in Section 19. Sales are projected ranging from 300 dmt per day in Project Phase 1 to 550 dmt per day in Project Phase 2.

### **22.5.2 Royalties**

The royalty rate in the model is 1% NSR. Costs for the buy-down of royalties are included in the model.

### **22.5.3 Taxes**

Assumptions made for the tax calculations are:

- Federal Income Tax is applied at 21% after deductions for depletion, depreciation and state and local taxes.
  - Depreciation is calculated using basic straight-line method with seven years on mobile equipment and 15 years on all other plant and facilities.
  - The depletion allowance is calculated on the revenues from lithium carbonate only and is the lesser of 23% of net profits after operating costs or 50% of the net profits after depreciation.
  - Reductions in taxable income are possible through government incentive programs. Such allowances are not included in the economic model.
- State and local taxes are applied at full rates. Certain deductions or exemptions may apply but are not included in the economic model.
  - Nevada Net Proceeds Tax is applied at 5.0% of net profits after depreciation and depletion.
  - An effective property tax rate of 1.35% is applied on the book value of capital.
  - A sales tax of 6.85% is applied to equipment capital costs based on the rate for Esmeralda County.

The tax calculations are based on the tax regime as of the date of this 2026 FS. The tax calculations should be considered approximations because actual tax estimates involve complex calculations that can be accurately determined only during operations.

### **22.5.4 Closure Costs**

Closure costs would occur beyond the 40-year period included in the economic analysis and are therefore not included in the analysis.

### **22.5.5 Financing**

The analysis was conducted with the assumption that the initial investment would be funded on a 100% equity basis with no debt leveraging.

### 22.5.6 Inflation

No price inflation or escalation factors were considered.

### 22.5.7 Economic Results

Results for the project base case are:

- Average annual production of 15,000 tonnes of lithium carbonate
- Average cash costs, inclusive of operating mining costs, processing costs, and site G&A costs, per tonne of lithium carbonate are:
  - \$4,056/t  $\text{Li}_2\text{CO}_3$  for operating costs only, no credit for NaOH
  - -\$1,286/t  $\text{Li}_2\text{CO}_3$  operating costs only, with NaOH as a credit
- After-tax NPV at 8% discount rate of \$4.007 billion
- After-tax IRR of 27.4%.

The economic results are summarized in Table 22-1, and the annual economic model is shown in Table 22-2. The economic model does not rely on NaOH by-product credits to achieve positive project economics. The cash flow model of the two revenue streams, lithium carbonate and sodium hydroxide, is presented in Figure 22-1.

**Table 22-1: Summary of Economic Results**

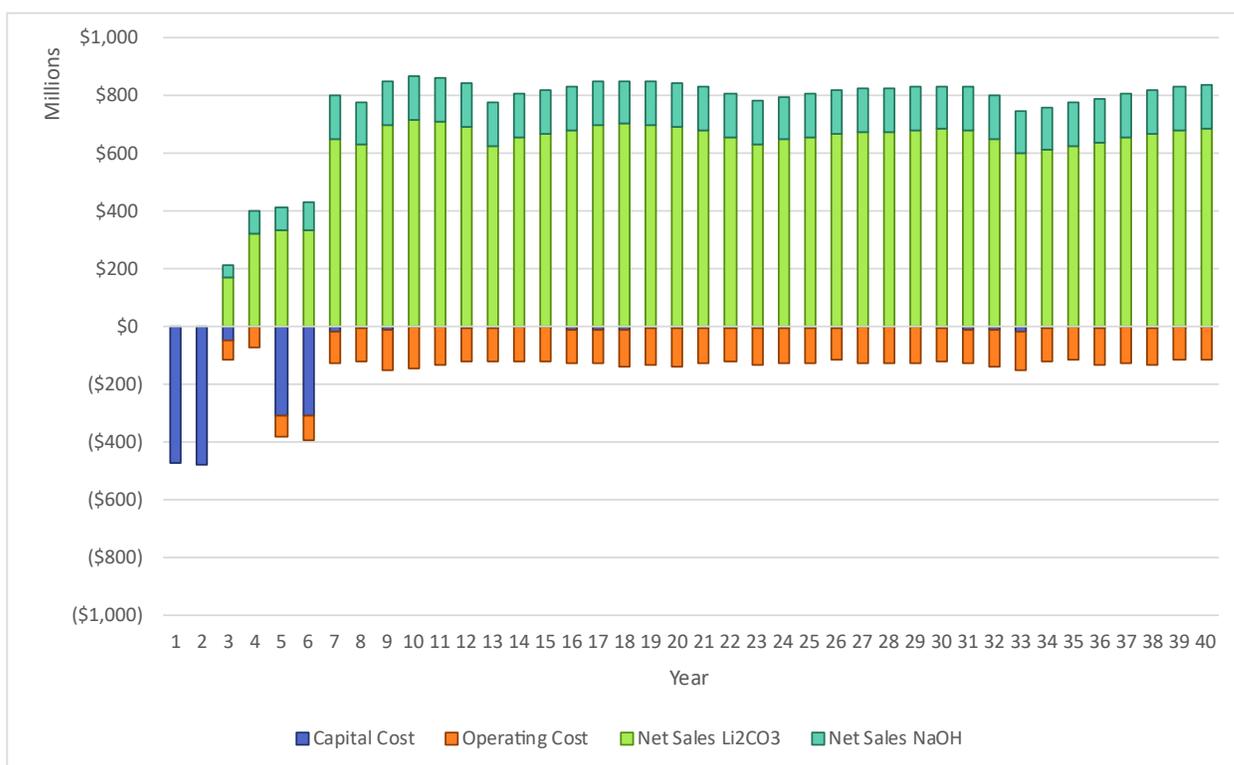
Valuation Indicator	Unit	After Tax
NPV@8%	\$B	\$4.007
IRR	%	27.4%
Payback	years	4.9

**Table 22-2: Cash Flow Summary**

Item	Total	YR -2	YR -1	YR 1	YR 2	YR 3	YR 4	YR 5	YR 6	YR 7	YR 8	YR 9	YR 10	YR 11	YR 12
<b>Production</b>															
High Grade Material Mined (Mt)	207.67	0.00	0.00	1.48	2.69	2.74	3.34	5.48	5.48	5.50	5.48	5.48	5.51	5.48	5.48
Li Grade (ppm)	1,149	0	0	1,091	1,122	1,144	1,143	1,121	1,085	1,197	1,229	1,217	1,193	1,075	1,129
Lithium Contained (Mt)	0.239	0.000	0.000	0.002	0.003	0.003	0.004	0.006	0.006	0.007	0.007	0.007	0.007	0.006	0.006
Waste & Low-Grade Material (Mt)	48.11	0.00	0.00	1.70	3.24	3.05	3.42	5.48	6.28	13.35	8.88	7.78	7.97	11.18	7.03
Plant Feed (Mt)	206.75	0.00	0.00	1.48	2.69	2.74	2.74	5.48	5.48	5.48	5.48	5.48	5.48	5.48	5.48
Lithium Recovered (Mt)*	0.200	0.000	0.000	0.001	0.003	0.003	0.003	0.005	0.005	0.006	0.006	0.006	0.005	0.005	0.005
<b>Li<sub>2</sub>CO<sub>3</sub> Produced (kt)</b>	<b>1.062</b>	<b>0.000</b>	<b>0.000</b>	<b>0.007</b>	<b>0.013</b>	<b>0.014</b>	<b>0.014</b>	<b>0.027</b>	<b>0.027</b>	<b>0.029</b>	<b>0.030</b>	<b>0.030</b>	<b>0.029</b>	<b>0.026</b>	<b>0.028</b>
<b>NaOH Produced (kt)</b>	<b>7.637</b>	<b>0.000</b>	<b>0.000</b>	<b>0.059</b>	<b>0.108</b>	<b>0.110</b>	<b>0.133</b>	<b>0.201</b>	<b>0.201</b>	<b>0.201</b>	<b>0.201</b>	<b>0.201</b>	<b>0.201</b>	<b>0.201</b>	<b>0.201</b>
<b>Revenue</b>															
Li <sub>2</sub> CO <sub>3</sub> Gross Revenue (\$M)	\$25,490	\$0	\$0	\$174	\$324	\$336	\$336	\$659	\$637	\$704	\$722	\$715	\$701	\$631	\$663
NaOH Gross Revenue (\$M)	\$5,728	\$0	\$0	\$44	\$81	\$82	\$100	\$151	\$151	\$151	\$151	\$151	\$151	\$151	\$151
Royalty (\$M)	(\$259)	\$0	\$0	(\$4)	(\$3)	(\$3)	(\$3)	(\$7)	(\$8)	(\$7)	(\$7)	(\$7)	(\$7)	(\$6)	(\$7)
<b>Net Revenue (\$M)</b>	<b>\$30,959</b>	<b>\$0</b>	<b>\$0</b>	<b>\$214</b>	<b>\$401</b>	<b>\$415</b>	<b>\$433</b>	<b>\$803</b>	<b>\$780</b>	<b>\$847</b>	<b>\$865</b>	<b>\$859</b>	<b>\$844</b>	<b>\$776</b>	<b>\$807</b>
Total Operating Costs (\$M)	(\$4,662)	\$0	\$0	(\$67)	(\$72)	(\$72)	(\$84)	(\$114)	(\$114)	(\$141)	(\$141)	(\$129)	(\$114)	(\$116)	(\$119)
<b>Before Tax Cash Flow (\$M)</b>	<b>\$26,297</b>	<b>\$0</b>	<b>\$0</b>	<b>\$147</b>	<b>\$329</b>	<b>\$343</b>	<b>\$349</b>	<b>\$689</b>	<b>\$665</b>	<b>\$706</b>	<b>\$725</b>	<b>\$729</b>	<b>\$730</b>	<b>\$659</b>	<b>\$688</b>
<b>Tax</b>															
Federal Tax (\$M)	(\$3,562)	\$0	\$0	(\$4)	(\$29)	(\$23)	(\$17)	(\$71)	(\$64)	(\$68)	(\$90)	(\$89)	(\$95)	(\$88)	(\$93)
State and Local Tax (\$M)	(\$1,117)	\$0	\$0	(\$1)	(\$8)	(\$7)	(\$5)	(\$21)	(\$20)	(\$21)	(\$28)	(\$28)	(\$29)	(\$28)	(\$29)
<b>Capital Costs</b>															
Initial Capital (\$M)	(\$1,642)	(\$474)	(\$477)	(\$33)	(\$0)	(\$305)	(\$306)	(\$13)	(\$0)	(\$2)	(\$1)	(\$0)	(\$0)	(\$0)	(\$0)
Sustaining Capital (\$M)	(\$127)	\$0	\$0	\$0	\$0	(\$3)	(\$1)	(\$1)	(\$3)	(\$6)	(\$0)	(\$1)	(\$6)	(\$6)	(\$1)
Working Capital (\$M)	(\$14)	\$0	\$0	(\$14)	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
<b>Total Capital Cost (\$M)</b>	<b>(\$1,783)</b>	<b>(\$474)</b>	<b>(\$477)</b>	<b>(\$47)</b>	<b>(\$0)</b>	<b>(\$307)</b>	<b>(\$307)</b>	<b>(\$14)</b>	<b>(\$3)</b>	<b>(\$8)</b>	<b>(\$1)</b>	<b>(\$1)</b>	<b>(\$6)</b>	<b>(\$6)</b>	<b>(\$1)</b>
<b>Cash Flow</b>															
<b>Net After Tax Cash Flow (\$M)</b>	<b>\$19,835</b>	<b>(\$474)</b>	<b>(\$477)</b>	<b>\$96</b>	<b>\$292</b>	<b>\$6</b>	<b>\$20</b>	<b>\$582</b>	<b>\$578</b>	<b>\$608</b>	<b>\$606</b>	<b>\$611</b>	<b>\$600</b>	<b>\$537</b>	<b>\$564</b>
Cumulative Cash Flow After Tax (\$M)		(\$474)	(\$951)	(\$855)	(\$563)	(\$558)	(\$538)	\$45	\$623	\$1,231	\$1,837	\$2,448	\$3,048	\$3,585	\$4,149

Item	YR 13	YR 14	YR 15	YR 16	YR 17	YR 18	YR 19	YR 20	YR 21	YR 22	YR 23	YR 24	YR 25	YR 26	YR 27
<b>Production</b>															
High Grade Material Mined (Mt)	5.48	5.47	5.48	5.48	5.48	5.48	5.60	5.59	5.47	5.48	5.48	5.48	5.48	5.48	5.48
Li Grade (ppm)	1,149	1,173	1,197	1,206	1,205	1,191	1,168	1,126	1,090	1,112	1,132	1,146	1,159	1,163	1,169
Lithium Contained (Mt)	0.006	0.006	0.007	0.007	0.007	0.007	0.007	0.006	0.006	0.006	0.006	0.006	0.006	0.006	0.006
Waste & Low-Grade Material (Mt)	0.09	0.01	0.00	0.00	0.00	3.04	4.41	5.15	3.16	0.68	0.09	0.01	0.00	0.00	0.00
Plant Feed (Mt)	5.48	5.47	5.48	5.48	5.48	5.48	5.48	5.48	5.47	5.48	5.48	5.48	5.48	5.48	5.48
Lithium Recovered (Mt)	0.005	0.005	0.006	0.006	0.006	0.005	0.005	0.005	0.005	0.005	0.005	0.005	0.005	0.005	0.005
<b>Li<sub>2</sub>CO<sub>3</sub> Produced (kt)</b>	0.028	0.029	0.029	0.030	0.030	0.029	0.029	0.028	0.027	0.027	0.028	0.028	0.028	0.028	0.029
<b>NaOH Produced (kt)</b>	0.201	0.201	0.201	0.201	0.201	0.201	0.201	0.201	0.201	0.201	0.201	0.201	0.201	0.201	0.201
<b>Revenue</b>															
Li <sub>2</sub> CO <sub>3</sub> Gross Revenue (\$M)	\$675	\$689	\$703	\$708	\$708	\$700	\$686	\$661	\$640	\$653	\$665	\$674	\$681	\$683	\$687
NaOH Gross Revenue (\$M)	\$151	\$151	\$151	\$151	\$151	\$151	\$151	\$151	\$151	\$151	\$151	\$151	\$151	\$151	\$151
Royalty (\$M)	(\$7)	(\$7)	(\$7)	(\$7)	(\$7)	(\$7)	(\$7)	(\$7)	(\$6)	(\$7)	(\$7)	(\$7)	(\$7)	(\$7)	(\$7)
<b>Net Revenue (\$M)</b>	<b>\$819</b>	<b>\$833</b>	<b>\$847</b>	<b>\$852</b>	<b>\$852</b>	<b>\$843</b>	<b>\$830</b>	<b>\$805</b>	<b>\$785</b>	<b>\$797</b>	<b>\$809</b>	<b>\$817</b>	<b>\$824</b>	<b>\$827</b>	<b>\$830</b>
Total Operating Costs (\$M)	(\$118)	(\$118)	(\$112)	(\$127)	(\$127)	(\$131)	(\$118)	(\$120)	(\$123)	(\$120)	(\$119)	(\$113)	(\$127)	(\$127)	(\$127)
<b>Before Tax Cash Flow (\$M)</b>	<b>\$701</b>	<b>\$715</b>	<b>\$734</b>	<b>\$725</b>	<b>\$725</b>	<b>\$713</b>	<b>\$712</b>	<b>\$686</b>	<b>\$661</b>	<b>\$677</b>	<b>\$690</b>	<b>\$704</b>	<b>\$697</b>	<b>\$700</b>	<b>\$703</b>
<b>Tax</b>															
Federal Tax (\$M)	(\$95)	(\$97)	(\$100)	(\$103)	(\$103)	(\$102)	(\$104)	(\$100)	(\$96)	(\$99)	(\$101)	(\$104)	(\$102)	(\$102)	(\$103)
State and Local Tax (\$M)	(\$30)	(\$30)	(\$31)	(\$32)	(\$32)	(\$32)	(\$33)	(\$31)	(\$30)	(\$31)	(\$32)	(\$32)	(\$32)	(\$32)	(\$32)
<b>Capital Costs</b>															
Initial Capital (\$M)	(\$0)	(\$3)	(\$0)	(\$0)	(\$0)	(\$3)	(\$5)	(\$2)	(\$0)	(\$0)	(\$0)	(\$0)	(\$0)	(\$0)	(\$0)
Sustaining Capital (\$M)	(\$1)	(\$6)	(\$12)	(\$9)	(\$6)	(\$2)	(\$1)	\$0	(\$7)	(\$4)	(\$4)	(\$2)	(\$0)	(\$1)	\$0
Working Capital (\$M)	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
<b>Total Capital Cost (\$M)</b>	<b>(\$1)</b>	<b>(\$9)</b>	<b>(\$12)</b>	<b>(\$9)</b>	<b>(\$6)</b>	<b>(\$6)</b>	<b>(\$6)</b>	<b>(\$2)</b>	<b>(\$7)</b>	<b>(\$4)</b>	<b>(\$4)</b>	<b>(\$2)</b>	<b>(\$0)</b>	<b>(\$1)</b>	<b>(\$0)</b>
<b>Cash Flow</b>															
<b>Net After Tax Cash Flow (\$M)</b>	<b>\$575</b>	<b>\$579</b>	<b>\$591</b>	<b>\$581</b>	<b>\$584</b>	<b>\$572</b>	<b>\$568</b>	<b>\$552</b>	<b>\$528</b>	<b>\$543</b>	<b>\$553</b>	<b>\$566</b>	<b>\$563</b>	<b>\$564</b>	<b>\$568</b>
Cumulative Cash Flow After Tax (\$M)	\$4,725	\$5,303	\$5,894	\$6,475	\$7,058	\$7,631	\$8,199	\$8,751	\$9,279	\$9,822	\$10,375	\$10,941	\$11,504	\$12,068	\$12,636

Item	YR 28	YR 29	YR 30	YR 31	YR 32	YR 33	YR 34	YR 35	YR 36	YR 37	YR 38	YR 39	YR 40
<b>Production</b>													
High Grade Material Mined (Mt)	5.47	5.48	5.47	5.48	5.48	5.47	5.48	5.48	5.48	5.47	5.48	5.47	5.48
Li Grade (ppm)	1,175	1,170	1,115	1,029	1,049	1,073	1,100	1,129	1,150	1,167	1,181	1,198	1,228
Lithium Contained (Mt)	0.006	0.006	0.006	0.006	0.006	0.006	0.006	0.006	0.006	0.006	0.006	0.007	0.007
Waste & Low-Grade Material (Mt)	0.84	2.32	3.24	10.08	0.51	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Plant Feed (Mt)	5.47	5.48	5.47	5.48	5.48	5.47	5.48	5.48	5.48	5.47	5.48	5.47	5.48
Lithium Recovered (Mt)	0.005	0.005	0.005	0.005	0.005	0.005	0.005	0.005	0.005	0.005	0.005	0.006	0.006
<b>Li<sub>2</sub>CO<sub>3</sub> Produced (kt)</b>	<b>0.029</b>	<b>0.029</b>	<b>0.027</b>	<b>0.025</b>	<b>0.026</b>	<b>0.026</b>	<b>0.027</b>	<b>0.028</b>	<b>0.028</b>	<b>0.029</b>	<b>0.029</b>	<b>0.029</b>	<b>0.030</b>
<b>NaOH Produced (kt)</b>	<b>0.201</b>	<b>0.201</b>	<b>0.201</b>	<b>0.201</b>	<b>0.201</b>	<b>0.201</b>	<b>0.201</b>	<b>0.201</b>	<b>0.201</b>	<b>0.201</b>	<b>0.201</b>	<b>0.201</b>	<b>0.201</b>
<b>Revenue</b>													
Li <sub>2</sub> CO <sub>3</sub> Gross Revenue (\$M)	\$690	\$687	\$655	\$605	\$617	\$631	\$646	\$663	\$676	\$686	\$694	\$704	\$722
NaOH Gross Revenue (\$M)	\$151	\$151	\$151	\$151	\$151	\$151	\$151	\$151	\$151	\$151	\$151	\$151	\$151
Royalty (\$M)	(\$7)	(\$7)	(\$7)	(\$6)	(\$6)	(\$6)	(\$6)	(\$7)	(\$7)	(\$7)	(\$7)	(\$7)	(\$7)
<b>Net Revenue (\$M)</b>	<b>\$834</b>	<b>\$831</b>	<b>\$799</b>	<b>\$749</b>	<b>\$761</b>	<b>\$775</b>	<b>\$791</b>	<b>\$807</b>	<b>\$819</b>	<b>\$829</b>	<b>\$838</b>	<b>\$848</b>	<b>\$865</b>
Total Operating Costs (\$M)	(\$114)	(\$116)	(\$122)	(\$130)	(\$118)	(\$112)	(\$127)	(\$127)	(\$127)	(\$112)	(\$112)	(\$117)	(\$117)
<b>Before Tax Cash Flow (\$M)</b>	<b>\$720</b>	<b>\$715</b>	<b>\$677</b>	<b>\$619</b>	<b>\$643</b>	<b>\$663</b>	<b>\$664</b>	<b>\$681</b>	<b>\$693</b>	<b>\$717</b>	<b>\$726</b>	<b>\$730</b>	<b>\$748</b>
<b>Tax</b>													
Federal Tax (\$M)	(\$106)	(\$105)	(\$99)	(\$89)	(\$94)	(\$97)	(\$97)	(\$99)	(\$101)	(\$106)	(\$107)	(\$108)	(\$110)
State and Local Tax (\$M)	(\$33)	(\$33)	(\$31)	(\$28)	(\$30)	(\$31)	(\$31)	(\$31)	(\$32)	(\$33)	(\$34)	(\$34)	(\$35)
<b>Capital Costs</b>													
Initial Capital (\$M)	(\$0)	(\$0)	(\$0)	(\$15)	(\$0)	(\$0)	(\$0)	(\$0)	(\$0)	(\$0)	(\$0)	(\$0)	(\$0)
Sustaining Capital (\$M)	(\$6)	(\$11)	(\$13)	(\$2)	(\$3)	(\$1)	(\$4)	(\$1)	(\$3)	(\$1)	(\$1)	(\$0)	(\$1)
Working Capital (\$M)	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
<b>Total Capital Cost (\$M)</b>	<b>(\$6)</b>	<b>(\$11)</b>	<b>(\$13)</b>	<b>(\$17)</b>	<b>(\$3)</b>	<b>(\$1)</b>	<b>(\$4)</b>	<b>(\$1)</b>	<b>(\$3)</b>	<b>(\$1)</b>	<b>(\$1)</b>	<b>(\$0)</b>	<b>(\$1)</b>
<b>Cash Flow</b>													
<b>Net After Tax Cash Flow (\$M)</b>	<b>\$574</b>	<b>\$566</b>	<b>\$534</b>	<b>\$485</b>	<b>\$516</b>	<b>\$534</b>	<b>\$532</b>	<b>\$549</b>	<b>\$557</b>	<b>\$578</b>	<b>\$584</b>	<b>\$588</b>	<b>\$602</b>
Cumulative Cash Flow After Tax (\$M)	\$13,210	\$13,776	\$14,310	\$14,795	\$15,311	\$15,845	\$16,377	\$16,926	\$17,483	\$18,061	\$18,645	\$19,233	\$19,835



**Figure 22-1: Cash Flow Model (Source: GRE, 2026)**

## 22.6 Sensitivity Analyses

Sensitivity of the Project was evaluated to changes in lithium price, lithium grade, capital costs, and operating costs with results shown in Table 22-3, Figure 22-2 and Figure 22-3. The cash flow model is most sensitive to changes in lithium price.

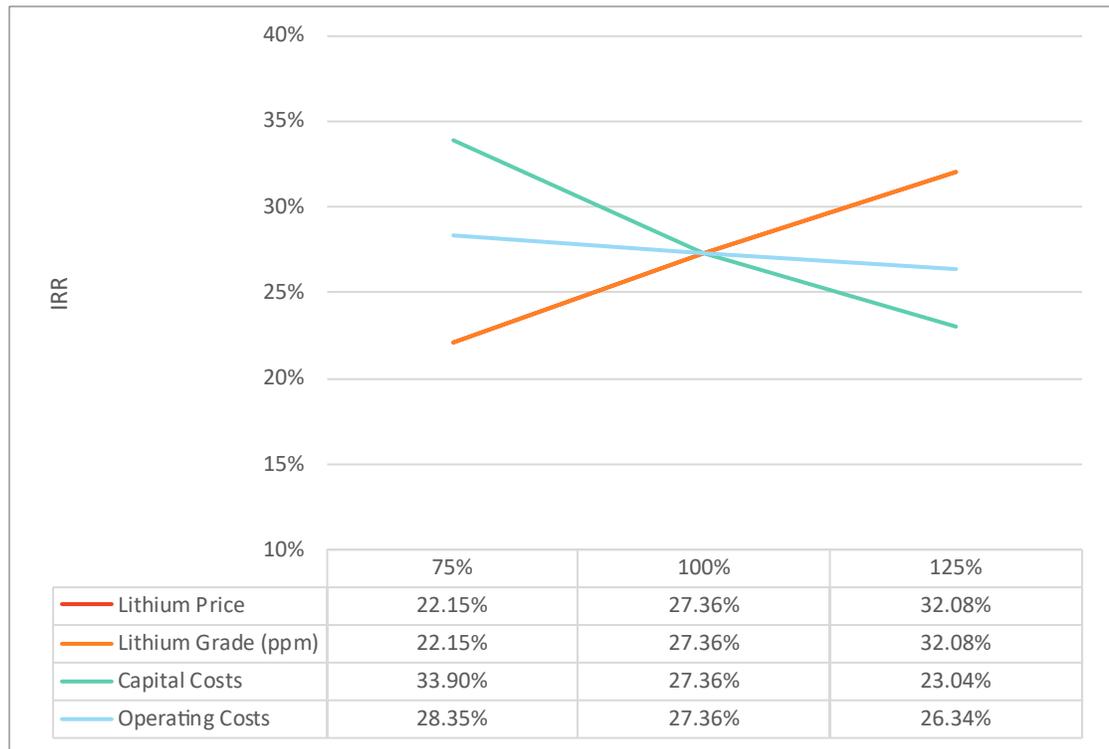
**Table 22-3: After-tax Sensitivity Assessment**

Variation	Units	-25%	Base Case	+25%
<b>Lithium Price</b>	<b>%/t LCE</b>	<b>\$18,000</b>	<b>\$24,000</b>	<b>\$30,000</b>
NPV-8%	\$B	\$2.75	\$4.01	\$5.26
IRR	%	22.2%	27.4%	32.1%
<b>Lithium Grade</b>	<b>ppm</b>	<b>862</b>	<b>1,149</b>	<b>1,436</b>
NPV-8%	\$B	\$2.75	\$4.01	\$5.26
IRR	%	22.2%	27.4%	32.1%
<b>Capital Cost</b>	<b>\$M</b>	<b>\$1,864</b>	<b>\$2,486</b>	<b>\$3,107</b>
NPV-8%	\$B	\$4.32	\$4.01	\$3.69
IRR	%	33.9%	27.4%	23.0%
<b>Operating Cost</b>	<b>\$/t LCE</b>	<b>\$2,361</b>	<b>\$3,148</b>	<b>\$3,935</b>

Variation	Units	-25%	Base Case	+25%
NPV-8%	\$B	\$4.23	\$4.01	\$3.78
IRR	%	28.4%	27.4%	26.3%



**Figure 22-2: Sensitivity in After-Tax NPV (Source: GRE, 2026)**



**Figure 22-3: Sensitivity in After-Tax IRR (Source: GRE, 2026)**

The sensitivity to the discount rate is identified in Table 22-4 below:

**Table 22-4: Discount Rate Sensitivity (Billions)**

Valuation Indicator	After Tax (\$B)
NPV@6%	\$5.7
NPV@8%	\$4.0
NPV@10%	\$2.9

## **23.0 ADJACENT PROPERTIES**

This section is unchanged from the 2024 NI-43-101 Feasibility Study.

Seven companies hold mining claims or private property adjacent to the Project. The authors have not independently verified the information on adjacent properties and that such information is not indicative of mineralization on the property that is the subject of this Report. The information summarized below is from publicly available sources.

### **23.1 Lithium in Sediments**

Three companies have claims immediately adjacent to the Project with Mineral Resources for lithium-bearing clays reported to have been prepared to NI 43-101 standards:

- Noram Lithium Corp. holds property north and east of the Project.
- Authium Ltd. holds property east and south of the Project
- Spearmint Resources, Inc. holds property south and east of the Project.

### **23.2 Lithium in Brine**

Four companies have private property or claims immediately adjacent to the Project with active production, mineral resources, or exploration potential for lithium-bearing brines:

- Albemarle Corp. owns property and holds claims west and north of the Project with an active commercial brine operation.
- Pure Energy Minerals, Ltd. holds claims west and north of the Project with a Mineral Resource that is reported to be prepared to NI 43-101 standards. Ameriwest Lithium, Inc. holds claims east and south of the Project's claims.
- Marquee Resources, Ltd. holds claims south of the Project's claims.

## **24.0 OTHER RELEVANT DATA AND INFORMATION**

There are no additional data or information to make this Report understandable and not misleading.

## **25.0 INTERPRETATION AND CONCLUSIONS**

### **25.1 Summary**

This Report presents the results of the FS for the Project.

The Project is based on mining and processing a large flat-lying, lithium claystone deposit. Mineral Reserves support a mine life of approximately 40 years. A chloride leaching process is used to extract lithium from the claystone followed by DLE, concentration, purification and precipitation of the lithium-bearing solution to recover the lithium into a marketable product.

The Project is designed for a two-phase production plan which will generate a LOM average of 15,000 t/a of lithium carbonate.

The Project generates positive cash flows over each of the three production phases, including the initial development in Project Phase 1, sized at 7,500 t/d of mill feed, and Project Phase 2, at 15,000 t/d.

The after-tax discounted cash flow analysis with caustic sales results in a positive 27.4% IRR, a \$4.01 billion NPV at an 8% discount rate and a payback of 4.9 years at a lithium carbonate price of \$24,000/t.

The Project is a potential source of lithium, a strategic commodity, for the US domestic market. Based on these results the Project merits detailed engineering and continued permitting. Further work is noted by the QPs to address identified opportunities and risks.

### **25.2 Mineral Tenure, Surface Rights and Royalties**

Century provided expert information relating to the mineral tenure, surface rights and royalties that supports the assumptions used in this Report. All claims defining the Property are 100% owned by Cypress Holdings Nevada, a wholly owned subsidiary of Century and provide Century with the rights to access all brines, placer, and lode minerals on the Property and subject to four separate underlying royalty agreements. All claims are all in good standing with the BLM and Esmeralda County. The Mineral Resource and Mineral Reserve estimate defined and described in this Report fall entirely on Century's unpatented mining claims.

### **25.3 Geology and Mineralization**

The Clayton Valley is an endorheic basin in western Nevada near the southwestern margin of the Basin and Range Province, a vast physiographic region in the Western US. The western portion of the project area is dominated by the uplifted basement rocks of Angel Island which consist of metavolcanic and clastic rocks, and colluvium. The southern and eastern portions are

dominated by uplifted, lacustrine sedimentary units of the Esmeralda Formation. Locally the Esmeralda Formation is comprised of fine grained sedimentary and tuffaceous units.

Lacustrine deposits, salt beds, and lithium-rich brines in the basin were formed during the Pleistocene. Diagenetic alteration of vitric material to zeolites and clay minerals occurred and resulted in anomalously high lithium concentrations.

Understanding Clayton Valley deposit setting, lithologies, mineralization, and the geological, structural, and alteration controls on mineralization is sufficient to support the estimation of Mineral Resource and Mineral Reserves.

## **25.4 Exploration, Drilling and Analytical Data Collection in Support of Mineral Resource Estimation**

The exploration programs completed at the Project to date are appropriate for the style of deposit and mineralization present on the Property.

The drilling and sample collection methods used by Century at the Project are acceptable for Mineral Resource and Mineral Reserve estimation.

The sample preparation, analysis, and security practices used by Century at the Project are acceptable and meet industry-standard practices and are sufficient to support Mineral Resource and Mineral Reserve estimation.

Century initiated a dynamic QA/QC program for the Project and used it in all sample collection and analysis streams from 2017 to 2022. The QA/QC protocol became more comprehensive and detailed with progressive years. The QA/QC submission rates meet industry-accepted standards and did not detect any material sample biases in the data reviewed that support the Mineral Resource and Mineral Reserve estimations.

Data verification concluded that the data collected from the Project adequately supports the geological interpretations and constituted a database of sufficient quality to support the use of the data in Mineral Resource and Mineral Reserve estimation.

## **25.5 Metallurgical Test Work**

Metallurgical, process development and pilot plant testing were completed through mid- 2025 and were used for flowsheet development, equipment selection, evolution of operating parameters and development of process design criteria. All test work was performed on material collected from the area of the proposed pit and is considered representative of the Mineral Reserves. Metallurgical practices identified off-the-shelf technology that was readily scalable. Where data was not available, assumptions were made based on best industry practices and data. The Project will use chloride leaching to recover lithium from the claystone

deposit. The process flowsheet is supported by data generated over several years of bench scale and pilot plant testing.

Attrition scrubbing has demonstrated itself an effective method to reduce lithium-bearing clays to their smallest mineral component, remove gangue material, and allow for optimum leaching without grinding.

An optimal acid dose to maximize lithium production was determined during testing. Based on later pilot plant results, approximately 84% lithium extraction can be expected in the leach stage.

Neutralization using sodium hydroxide is accomplished after leaching followed by pressure filtration to produce a filter cake suitable for dry stacking in the TSF.

DLE has been demonstrated as being successful in removing elements such sodium, potassium, calcium, magnesium and boron, and eliminating the need for evaporation in the flowsheet.

Treatment of concentrated lithium solution from the pilot plant has consistently resulted in lithium carbonate grading at greater than 99.9%. The chlor-alkali plant generates hydrochloric acid and sodium hydroxide for use in the process. At the design rates, surplus sodium hydroxide will be produced and available for sale.

Sufficient water supply is permitted for the current flowsheet design and operating parameters. No concerns were identified that would impact process performance or reagent consumption.

## **25.6 Mining**

All materials within the Project's resource area are relatively flat lying soft, sedimentary rocks ranging from 100 to 140 m in thickness. The deposit is covered by a thin veneer of alluvial gravels. The material is soft, so drilling and blasting will not be required.

The dozer ripper, truck/shovel method was selected as the preferred mining method for the mineralized material because: 1) it allows for ease of operation, 2) allows for fewer pieces of equipment, and 3) it results in lower capital and operating costs.

The waste material and low-grade mineralized material will be removed using shovels and trucks and hauled to waste and low-grade stockpiles, respectively. Additionally, waste material will be backfilled into the pit to prepare for construction of a lined in-pit TSF if required or used to construct compacted clay liners for the waste and low-grade material stockpiles.

Geotechnical slope stability analyses were completed under static and pseudo-static loading conditions. This site has no shallow groundwater, and the pit design is above any natural aquifers; therefore, slope stability analyses did not include hydrostatic loading. Slope stability results met acceptable factors of safety under both static and pseudo-static conditions.

Within the final pit shell, six pit phases were generated. At the design nominal production rate of 7,500 t/d for years 1 through 4, 15,000 t/d for the remainder of the Project. The mine life represented by these six pit phases is 40-75 years.

## **25.7 Recovery Methods**

The process design was developed from metallurgical test work conducted on representative samples and supports the current flowsheet. The process plant has been designed based on a plant capacity of 7,500 t/d. The expansion to 15,000 t/d was based on expanding the current facility and designing the current facility for expansion.

## **25.8 Infrastructure**

The site requires the development of a new 1.8 km long access road; a process facility including a chlor-alkali plant; ancillary facilities to support process and mining operations; waste management in the form of WRSFs, low grade stockpiles, and TSF; water management including stormwater diversion and contact water ponds; and water and power supply and distribution.

Contact water ponds are designed for the process plant, TSF and initial low-grade stockpile.

Water for the Project is sourced from new wells approximately 7.5 kilometers southeast of the project.

NV Energy is constructing a high voltage powerline close to the site, to serve planned renewable energy projects in the region. Connection to this service will provide sufficient power for all Project Phases of the Project.

### **25.8.1 Tailings Storage Facility**

The TSF is designed as a geomembrane lined facility to accommodate all the tailings produced during the life of mine. The tailings material will be mechanically dried to a cake-like material using a filter press and placed in a dry stack fashion. The TSF is designed with a capacity of 288 Mt at an average dry density of 1.35 t/m<sup>3</sup>.

The TSF is designed in six phases (in line with the pit phases), TSF Phases 1 and 2 will be constructed on the ground surface east of the open pit mine, and TSF Phases 3 to 6 will be constructed as a combination of in pit fill and ground surface to form one TFS upon completion.

## **25.9 Markets and Contracts**

A current commodity market research review was obtained for both lithium carbonate and sodium hydroxide by independent research companies recognized as experts in generating commodity reports for these commodities. The analysis provided long-term price forecasts for

both saleable products. The research predicts a lithium supply deficit by 2030 given the worldwide transition to EVs currently requiring the use of lithium-ion batteries and increased use in stationary battery storage. The research predicts growth in sodium hydroxide demand domestically as China increases and absorbs Asian supply, and with existing US chlor-alkali plants forced to close or upgrade from older, less environmentally friendly technology.

The lithium carbonate price used to estimate Mineral Resources and Mineral Reserves, and in the economic analysis for the Project is \$24,000/t. The price for sodium hydroxide produced by the chlor-alkali plant used in the economic analysis for the Project is \$750/dmt.

Century has non-binding Memorandum of Understanding with ORICA Inc for the sale of sodium hydroxide. There are currently no other contracts or sales agreements in place for mining, concentrating, smelting, refining, transportation handling, hedging, forward sales contractors or arrangements.

## 25.10 Capital and Operating Costs

The capital cost estimate is classified as a Class 3 estimate following the AACE International Guidelines Practice No. 47-R-11 with an accuracy within the range of +/- 15% of the final project cost, including contingency. Initial capital cost, for Project Phase 1 is \$997 million. The total capital cost for the Project is \$1,657 million phased over the first five years.

Sustaining capital over the life of the Project is estimated at \$42 million for tailings facility expansion and equipment replacements. These costs are in addition to the expansion capital costs shown above.

Operating costs were estimated for mining, process and G&A. Over the LOM, the operating costs will average from \$30.59/t of plant feed in Project Phase 1 to \$22.16/t in Project Phase 2.

## 25.11 Economic Analysis

Under the assumptions presented in this Report, the after-tax economic, with caustic sales, results for the Project are summarized in Table 25-1. The Project is most sensitive to changes in lithium price, grade and recovery.

**Table 25-1: Summary of Economic Results**

Valuation Indicator	Unit	After Tax
NPV@8%	\$B	\$4.007
IRR	%	27.4%
Payback	years	4.9

## 25.12 Environmental, Permitting and Social Considerations

The two primary regulatory agencies, BLM and NDEP, are experienced at permitting mining operations in Nevada, which is considered a mining friendly state. The processes for Federal approval and state permitting are very well defined. Much of the upfront work needed for the BLM and the NEPA process has been completed or is near completion, including BLM approval of several of the baseline resource reports. Additionally, the BLM and NDEP have a public involvement process to obtain input from stakeholders and the public.

## 25.13 Opportunities

The following opportunities have been identified for the Project.

- The Project is a potential new source of lithium in the US. The US government has designated lithium a strategic mineral, therefore, the Project may have opportunity for accelerated permitting, access to designated financial support programs, and possible tax incentives.
- Although the sales prices of lithium carbonate and sodium hydroxide are subject to market fluctuations, forecasts indicate growth in domestic US demand supporting the price assumptions in this Report.
- The Project has a large open area south of the pit which has been identified as suitable for development of a solar power field. A preliminary assessment by Wood identified the potential for constructing a 120 MW solar field at this location.
- Century holds a 256-ha geothermal lease 7 km northeast of the Project. The site requires exploration drilling to determine geothermal energy potential. There are two other active geothermal exploration/development projects in the area which also represent possible additional sources of power supply.
- Costs for the TSF could be reduced if the geomembrane liner is replaced or augmented with non-permeable materials from the Property, if determined acceptable with engineering and permitting requirements.
- The capital costs associated with concrete and foundations may be reduced by locating a source of aggregate closer to the Project.

## 25.14 Risks

The following risks have been identified for the Project.

- The Project is vulnerable to changes in the general economy, and especially, to the rate of adoption of battery metals for use in the EV market and energy storage. Changes in the sale price of lithium carbonate and sodium hydroxide may drop due to market fluctuations, possible oversupply from new and existing producers and/or reduction in demand.
- Permitting constraints or delay in the NEPA approval process may occur due to public or non-governmental organization (NGO) opposition to NDEP and BLM permitting

process and approvals.

- The Project could be impacted by inability to secure a favorable power purchase agreement and/or limited by the power available for the Project.
- Average density was used in the estimation of Mineral Resources and Reserves. Actual tonnages may vary if densities differ locally between the different clay units. Lower than expected process recoveries for lithium and/or higher reagent consumptions may occur due to unforeseen changes in the estimated Mineral Reserves.
- Samples of tailings materials tested for the TSF design may not reflect the current process design.
- Strength values of liners in TSF design are based on conservative published data, not test work. Because of this, additional test work may be required for final engineering and/or permit requirements.
- Geotechnical investigations are limited to shallow surface borings, test pits and geophysical surveys. Additional test work may be required in detailed engineering to support the foundation designs for the process facility and TSF.
- Potential for increased capital cost and schedule delay may occur if potentially acid generating material is identified, requiring lining of low-grade stockpiles and/or WRSFs.

## 26.0 RECOMMENDATIONS

### 26.1 Summary

A supplemental infill drilling program is recommended. The goals of the program would be 1) collect additional data to optimize the Project's Phase 1 economic model, 2) collect material for density test work, and 3) collect material for geotechnical test work.

Additional pilot testing is recommended to be completed on deeper material from claystone zones 1 and 2 to further confirm the metallurgy of these materials at the Project. Additional improvement in leaching and neutralization stages may be possible through the review of leach kinetics to optimize agitator design and reduce energy requirements.

Additional geotechnical data is recommended to be collected to supplement the existing characterization data and further support the tailings storage facility (TSF) design and foundation, foundation infrastructure requirements for the processing plant, and traffic management a load bearing capacity of materials in the pit.

A Plan of Operations (PoO) is recommended to be completed and filed with the Bureau of Land Management (BLM) in Q1 2026. Following acceptance of the PoO, the BLM will initiate the National Environmental Policy Act (NEPA), for projects of this size, the level of NEPA analysis required is typically an Environmental Impact Statement (EIS). It is also recommended the permitting process with the State of Nevada be initiated at the Project and proceed concurrently with the federal permitting process.

Infrastructure related recommendations include: 1) Engage NV Energy to initiate preliminary engineering studies for the interconnection of the Project to the electrical grid at a mutually selected Point of Delivery (POD). 2) The water source for the Project should be defined with a drilling program using piezometers and other pumping tests available to best plan a well field for future use under the Company's water rights permit in the Clayton Valley Basin. 3) Locate local sources of barrow material for construction use at the Project.

Given the advanced stage of the Project, the QPs make the following recommendations to support the concurrent advancement of permitting, detailed engineering, and remaining technical work programs. The recommended work is organized into two phases; Phase A activities are recommended to proceed immediately in parallel with the PoO filing and NEPA process; Phase B activities are recommended to commence following initiation of the NEPA process and in support of detailed engineering.

## **26.2 Geology and Resources**

The QPs recommend an in-fill drilling program within and immediately adjacent to the planned Pit Phase 1. The drill plan would assess the potential for an area of higher relative grade lithium mineralization, provide material for additional pit slope stability analysis, strengthen the detail of the geologic model, and potentially increase confidence in the Mineral Resource estimate.

The goals of the program would be 1) collect additional data to optimize the Project's Phase 1 economic model, 2) collect material for density test work, and 3) collect material for geotechnical test work. This drill program would include ten core holes to a maximum depth of 130 m each, totaling 1,300 m. Inclusive of sampling, assaying, and density and geotechnical test work, the total cost for the program is estimated at \$0.30 million.

## **26.3 Metallurgical Test Work**

The pilot plant has operated over a 4-year period and has demonstrated the viability of the process flowsheet for the Project. Additional testing is recommended to support detailed engineering and confirm process performance on deeper claystone materials within the deposit.

- Pilot testing on deeper material from claystone zones 1 and 2 is recommended to confirm the observations from bench tests that the behavior of deeper materials is the same or better than the material tested to date at the pilot plant. Approximately 15 tonnes of deeper material was collected during Century's sonic drill program for this testing. The estimated cost for this program, at three months of pilot plant operation, is \$0.6 million.
- Additional improvement in leaching and neutralization stages may be possible through the review of leach kinetics to optimize agitator design and reduce energy requirements. The estimated cost is approximately \$35,000.

Total estimated cost for metallurgical test work is \$0.635 million.

## **26.4 Mining**

The QPs find the mine design, selection of mining equipment, and the mine production schedule sufficient to support the next stage of the Project. The QPs have no further recommendations unless changes occur in the resource model with further drilling or geotechnical information.

## **26.5 Geotechnical Data**

Additional geotechnical data are to be collected to supplement the existing characterization data and further support the TSF design relevant to the following:

- Confirm TSF and process plant foundation characterization
- Confirm tailings characterization
- Confirm liner interface strength
- Examine opportunity to use a compacted soil layer in lieu of a geomembrane liner.
- Evaluate the trafficability and bearing capacity of plastic clay materials on the pit floor and benches to determine whether the selected mining equipment (dozers with ripper, trucks, loaders, and haul trucks) can operate productively under expected in-situ moisture conditions. This work should include field trials and laboratory testing of shear strength, Atterberg limits, and California Bearing Ratio (CBR) on representative clay samples to establish equipment operability criteria and identify any requirements for pit floor preparation, drainage, or seasonal scheduling adjustments.

The estimated cost for the geotechnical work is \$0.4 million.

## 26.6 Permitting and Environmental

The Project is included on the FAST-41 Transparency Project dashboard pursuant to Executive Order 14241. The Project is positioned to enter the federal permitting process and will with the submission of a PoO to the BLM All baseline environmental studies are complete and accepted by the BLM. The NEPA process requires an assessment of the potential impacts associated with the proposed operation and identified alternatives and the determination of potential measures to mitigate those impacts. Following acceptance of the PoO, the BLM will initiate the NEPA process which is expected to take approximately 24 months to complete through issuance of a Record of Decision.

The following permitting activities are recommended:

- Complete and file a PoO with the BLM in Q1 2026 in accordance with FAST-41 Transparency deadlines. Century should ensure the PoO is comprehensive and addresses all resource-specific requirements to facilitate timely acceptance by the BLM and initiation of the NEPA process.
- Support the BLM through the NEPA process, including preparation of technical materials for agency review, response to information requests, and participation in public scoping and comment periods. The EIS is expected to require approximately 24 months from initiation to issuance of the Record of Decision.
- Continue to meet all FAST-41 Transparency milestones as posted on the federal permitting dashboard. Century should maintain active engagement with the BLM and other cooperating agencies to ensure the permitting schedule remains on track.
- Initiate state permitting activities in parallel with the federal NEPA process, including the Water Pollution Control Permit (WPCP) application with the Nevada Division of Environmental Protection (NDEP). The identification and characterization of groundwater resources beneath the Project area will be needed for the WPCP. The need for additional information on groundwater resources and groundwater quality will be determined in consultation with NDEP.

The estimated cost for permitting support activities is \$1.5 million.

## 26.7 Infrastructure

### Power supply

The Project's electrical power supply is planned to be provided from the Greenlink West Project, a new 525-kilovolt (kV) electric transmission line being constructed by NV Energy within approximately 3 km of the Project. Century should engage NV Energy to initiate preliminary engineering studies for the interconnection of the Project to the Greenlink line, including

substation design, capacity allocation, and determination of contract rates for power supply. The estimated cost for NV Energy's preliminary engineering engagement is \$50,000.

### **Point of Delivery Relocation**

Century is relocating the Point of Delivery (POD) for electrical power to a location south of the Project. This relocation is expected to improve the efficiency and reliability of the power supply configuration and reduce the length of on-site transmission infrastructure. Century should complete engineering and permitting for the relocated POD in coordination with NV Energy and in advance of detailed engineering for the process facilities. The estimated cost for POD relocation engineering is \$0.1 million

### **Water Supply**

Water supply is estimated to require construction of a pipeline from a source southwest of the Project. An area to the south of the Project was identified as a potential source for developing the water supply. The estimated cost for testing this area is \$2.5 million, to include drilling four holes at 700 m in depth.

### **Construction Materials**

To reduce the cost of construction materials, investigation of potential borrow sources for production of concrete aggregate is recommended. The estimated cost of site investigations is \$25,000.

## **26.8 Detailed Engineering**

Following advancement of the permitting process, Century should proceed with detailed engineering for the Project. The detailed engineering phase will develop the Project design to a level sufficient to support procurement, construction planning, and financing. Key elements of the detailed engineering program include:

- Process plant detailed design, including mechanical equipment specifications, piping and instrumentation diagrams, electrical and control systems design, and structural and civil engineering for all process facilities.
- Chlor-alkali plant detailed design, in coordination with the selected electrolyzer technology supplier (INEOS).
- Mine infrastructure detailed design, including haul roads, dewatering systems, and ROM stockpile facilities.
- Tailings storage facility detailed design, incorporating the results of the geotechnical characterization program recommended in Section 26.6.
- Site-wide infrastructure, including water supply pipeline, power distribution, communications, and ancillary buildings.

- Completion of a Class 2 capital cost estimate in accordance with AACE International Guidelines, with an expected accuracy of +/- 10%.

The cost of the detailed engineering program is not included in the summary below as it will be defined upon selection of an engineering firm and finalization of the scope of work.

## 26.9 Summary of Costs

Table 26-1 summarizes the cost of the recommended work program for progressing the Project. These costs are exclusive of detailed engineering, which will be estimated separately.

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

<b>Item</b>	<b>Cost (\$M)</b>
Geology and Mineral Resources	0.300
Metallurgical Test Work	0.635
Geotechnical	0.400
Environmental, Permitting and Social Considerations	1.500
Infrastructure	2.675
<b>Total</b>	<b>5.510</b>

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## **Appendix A Claims List**

Claim Name	Type	Listed Owner	Serial Number	Date Of Location	Size (ha)	Township	Range	Section(s)	Royalty	NOTES
ANGEL 1	Placer	CYPRESS HOLDINGS (NEVADA) LTD	NV101379934	12/10/2015	8.09	0020S	0400E	28	NSR1	Mt Diablo Meridian no. 21
ANGEL 2	Placer	CYPRESS HOLDINGS (NEVADA) LTD	NV101379935	12/10/2015	8.09	0020S	0400E	28	NSR1	503 active claims
ANGEL 3	Placer	CYPRESS HOLDINGS (NEVADA) LTD	NV101379936	12/10/2015	8.09	0020S	0400E	28	NSR1	Esmeralda County
ANGEL 4	Placer	CYPRESS HOLDINGS (NEVADA) LTD	NV101379937	12/10/2015	8.09	0020S	0400E	33	NSR1	
ANGEL 5	Placer	CYPRESS HOLDINGS (NEVADA) LTD	NV101330726	12/10/2015	8.09	0020S	0400E	33	NSR1	NSR1 - glory
ANGEL 6	Placer	CYPRESS HOLDINGS (NEVADA) LTD	NV101330727	12/10/2015	8.09	0020S	0400E	33	NSR1	NSR2 - dean
ANGEL 7	Placer	CYPRESS HOLDINGS (NEVADA) LTD	NV101330728	12/10/2015	8.09	0020S	0400E	33	NSR1	NSR3 - enertopia
ANGEL 8	Placer	CYPRESS HOLDINGS (NEVADA) LTD	NV101330729	12/11/2015	8.09	0020S	0400E	33	NSR1	NA - none
ANGEL 9	Placer	CYPRESS HOLDINGS (NEVADA) LTD	NV101330730	12/11/2015	8.09	0020S	0400E	33	NSR1	
ANGEL 10	Placer	CYPRESS HOLDINGS (NEVADA) LTD	NV101330731	12/11/2015	8.09	0020S	0400E	33	NSR1	
ANGEL 11	Placer	CYPRESS HOLDINGS (NEVADA) LTD	NV101330732	12/11/2015	8.36	0020S	0400E	33	NSR1	
CLAY 1	Lode	CYPRESS HOLDINGS (NEVADA) LTD	NV101648143	10/8/2017	8.36	0020S	0400E	23	NSR2	
CLAY 2	Lode	CYPRESS HOLDINGS (NEVADA) LTD	NV101648144	10/8/2017	8.36	0020S	0400E	23	NSR2	
CLAY 3	Lode	CYPRESS HOLDINGS (NEVADA) LTD	NV101648145	10/8/2017	8.36	0020S	0400E	23	NSR2	
CLAY 4	Lode	CYPRESS HOLDINGS (NEVADA) LTD	NV101648146	10/8/2017	8.36	0020S	0400E	23	NSR2	
CLAY 5	Lode	CYPRESS HOLDINGS (NEVADA) LTD	NV101648147	10/8/2017	8.36	0020S	0400E	22 23	NSR2	
CLAY 6	Lode	CYPRESS HOLDINGS (NEVADA) LTD	NV101648148	10/8/2017	8.36	0020S	0400E	22 23	NSR2	
CLAY 7	Lode	CYPRESS HOLDINGS (NEVADA) LTD	NV101648149	10/8/2017	8.36	0020S	0400E	22	NSR2	
CLAY 8	Lode	CYPRESS HOLDINGS (NEVADA) LTD	NV101648150	10/8/2017	8.36	0020S	0400E	22	NSR2	
CLAY 9	Lode	CYPRESS HOLDINGS (NEVADA) LTD	NV101648151	10/8/2017	8.36	0020S	0400E	22	NSR2	
CLAY 10	Lode	CYPRESS HOLDINGS (NEVADA) LTD	NV101648152	10/8/2017	8.36	0020S	0400E	22	NSR2	
CLAY 11	Lode	CYPRESS HOLDINGS (NEVADA) LTD	NV101648153	10/8/2017	8.36	0020S	0400E	22	NSR2	
CLAY 12	Lode	CYPRESS HOLDINGS (NEVADA) LTD	NV101648154	10/8/2017	8.36	0020S	0400E	22	NSR2	
CLAY 13	Lode	CYPRESS HOLDINGS (NEVADA) LTD	NV101648155	10/8/2017	8.36	0020S	0400E	22	NSR2	
CLAY 14	Lode	CYPRESS HOLDINGS (NEVADA) LTD	NV101648156	10/8/2017	8.36	0020S	0400E	22	NSR2	
CLAY 15	Lode	CYPRESS HOLDINGS (NEVADA) LTD	NV101648157	10/8/2017	8.36	0020S	0400E	22	NSR2	
CLAY 16	Lode	CYPRESS HOLDINGS (NEVADA) LTD	NV101648158	10/8/2017	8.36	0020S	0400E	22	NSR2	
CLAY 17	Lode	CYPRESS HOLDINGS (NEVADA) LTD	NV101649338	10/8/2017	8.36	0020S	0400E	22	NSR2	
CLAY 18	Lode	CYPRESS HOLDINGS (NEVADA) LTD	NV101649339	10/8/2017	8.36	0020S	0400E	22	NSR2	
CLAY 19	Lode	CYPRESS HOLDINGS (NEVADA) LTD	NV101649340	10/8/2017	8.36	0020S	0400E	22	NSR2	
CLAY 20	Lode	CYPRESS HOLDINGS (NEVADA) LTD	NV101649341	10/8/2017	8.36	0020S	0400E	22	NSR2	
CLAY 21	Lode	CYPRESS HOLDINGS (NEVADA) LTD	NV101649342	10/8/2017	8.36	0020S	0400E	21 22	NSR2	
CLAY 22	Lode	CYPRESS HOLDINGS (NEVADA) LTD	NV101649343	10/8/2017	8.36	0020S	0400E	21 22	NSR2	
CLAY 23	Lode	CYPRESS HOLDINGS (NEVADA) LTD	NV101649344	10/8/2017	8.36	0020S	0400E	21	NSR2	
CLAY 24	Lode	CYPRESS HOLDINGS (NEVADA) LTD	NV101649345	10/8/2017	8.36	0020S	0400E	21	NSR2	
CLAY 25	Lode	CYPRESS HOLDINGS (NEVADA) LTD	NV101649346	10/8/2017	8.36	0020S	0400E	21	NSR2	
CLAY 26	Lode	CYPRESS HOLDINGS (NEVADA) LTD	NV101649347	10/8/2017	8.36	0020S	0400E	21	NSR2	
CLAY 27	Lode	CYPRESS HOLDINGS (NEVADA) LTD	NV101649348	10/7/2017	8.36	0020S	0400E	23	NSR2	
CLAY 28	Lode	CYPRESS HOLDINGS (NEVADA) LTD	NV101649349	10/7/2017	8.36	0020S	0400E	14 23	NSR2	
CLAY 29	Lode	CYPRESS HOLDINGS (NEVADA) LTD	NV101649350	10/7/2017	8.36	0020S	0400E	23	NSR2	
CLAY 30	Lode	CYPRESS HOLDINGS (NEVADA) LTD	NV101649351	10/7/2017	8.36	0020S	0400E	14 23	NSR2	
CLAY 31	Lode	CYPRESS HOLDINGS (NEVADA) LTD	NV101649352	10/7/2017	8.36	0020S	0400E	22	NSR2	
CLAY 32	Lode	CYPRESS HOLDINGS (NEVADA) LTD	NV101649353	10/7/2017	8.36	0020S	0400E	15 22	NSR2	
CLAY 33	Lode	CYPRESS HOLDINGS (NEVADA) LTD	NV101649354	10/7/2017	8.36	0020S	0400E	22	NSR2	
CLAY 34	Lode	CYPRESS HOLDINGS (NEVADA) LTD	NV101649355	10/7/2017	8.36	0020S	0400E	15 22	NSR2	
CLAY 35	Lode	CYPRESS HOLDINGS (NEVADA) LTD	NV101649356	10/7/2017	8.36	0020S	0400E	22	NSR2	
CLAY 36	Lode	CYPRESS HOLDINGS (NEVADA) LTD	NV101649357	10/7/2017	8.36	0020S	0400E	15 22	NSR2	
CLAY 37	Lode	CYPRESS HOLDINGS (NEVADA) LTD	NV101649358	10/7/2017	8.36	0020S	0400E	22	NSR2	
CLAY 38	Lode	CYPRESS HOLDINGS (NEVADA) LTD	NV101570738	10/7/2017	8.36	0020S	0400E	15 22	NSR2	
CLAY 39	Lode	CYPRESS HOLDINGS (NEVADA) LTD	NV101570739	10/7/2017	8.36	0020S	0400E	22	NSR2	
CLAY 40	Lode	CYPRESS HOLDINGS (NEVADA) LTD	NV101570740	10/7/2017	8.36	0020S	0400E	15 22	NSR2	
CLAY 41	Lode	CYPRESS HOLDINGS (NEVADA) LTD	NV101570741	10/7/2017	8.36	0020S	0400E	22	NSR2	
CLAY 42	Lode	CYPRESS HOLDINGS (NEVADA) LTD	NV101570742	10/7/2017	8.36	0020S	0400E	15 22	NSR2	
CLAY 43	Lode	CYPRESS HOLDINGS (NEVADA) LTD	NV101570743	10/7/2017	8.36	0020S	0400E	22	NSR2	
CLAY 44	Lode	CYPRESS HOLDINGS (NEVADA) LTD	NV101570744	10/7/2017	8.36	0020S	0400E	15 22	NSR2	
CLAY 45	Lode	CYPRESS HOLDINGS (NEVADA) LTD	NV101570745	10/7/2017	8.36	0020S	0400E	22	NSR2	
CLAY 46	Lode	CYPRESS HOLDINGS (NEVADA) LTD	NV101570746	10/7/2017	8.36	0020S	0400E	15 22	NSR2	
CLAY 47	Lode	CYPRESS HOLDINGS (NEVADA) LTD	NV101570747	10/7/2017	8.36	0020S	0400E	21 22	NSR2	
CLAY 48	Lode	CYPRESS HOLDINGS (NEVADA) LTD	NV101570748	10/7/2017	8.36	0020S	0400E	15 16 21 22	NSR2	
CLAY 49	Lode	CYPRESS HOLDINGS (NEVADA) LTD	NV101570749	10/7/2017	8.36	0020S	0400E	21	NSR2	
CLAY 50	Lode	CYPRESS HOLDINGS (NEVADA) LTD	NV101570750	10/7/2017	8.36	0020S	0400E	16 21	NSR2	
CLAY 51	Lode	CYPRESS HOLDINGS (NEVADA) LTD	NV101570751	10/8/2017	8.36	0020S	0400E	21	NSR2	
CLAY 52	Lode	CYPRESS HOLDINGS (NEVADA) LTD	NV101570752	10/8/2017	8.36	0020S	0400E	16 21	NSR2	

Claim Name	Type	Listed Owner	Serial Number	Date Of Location	Size (ha)	Township	Range	Section(s)	Royalty	NOTES
CLAY 53	Lode	CYPRESS HOLDINGS (NEVADA) LTD	NV101570753	10/6/2017	8.36	0020S	0400E	14	NSR2	
CLAY 54	Lode	CYPRESS HOLDINGS (NEVADA) LTD	NV101570754	10/7/2017	8.36	0020S	0400E	14	NSR2	
CLAY 55	Lode	CYPRESS HOLDINGS (NEVADA) LTD	NV101570755	10/6/2017	8.36	0020S	0400E	14 15	NSR2	
CLAY 56	Lode	CYPRESS HOLDINGS (NEVADA) LTD	NV101570756	10/7/2017	8.36	0020S	0400E	14 15	NSR2	
CLAY 57	Lode	CYPRESS HOLDINGS (NEVADA) LTD	NV101570757	10/6/2017	8.36	0020S	0400E	15	NSR2	
CLAY 58	Lode	CYPRESS HOLDINGS (NEVADA) LTD	NV101570758	10/7/2017	8.36	0020S	0400E	15	NSR2	
CLAY 59	Lode	CYPRESS HOLDINGS (NEVADA) LTD	NV101782338	10/6/2017	8.36	0020S	0400E	15	NSR2	
CLAY 60	Lode	CYPRESS HOLDINGS (NEVADA) LTD	NV101782339	10/7/2017	8.36	0020S	0400E	15	NSR2	
CLAY 61	Lode	CYPRESS HOLDINGS (NEVADA) LTD	NV101782340	10/6/2017	8.36	0020S	0400E	15	NSR2	
CLAY 62	Lode	CYPRESS HOLDINGS (NEVADA) LTD	NV101782341	10/7/2017	8.36	0020S	0400E	15	NSR2	
CLAY 63	Lode	CYPRESS HOLDINGS (NEVADA) LTD	NV101782342	10/6/2017	8.36	0020S	0400E	15	NSR2	
CLAY 64	Lode	CYPRESS HOLDINGS (NEVADA) LTD	NV101782343	10/7/2017	8.36	0020S	0400E	15	NSR2	
CLAY 65	Lode	CYPRESS HOLDINGS (NEVADA) LTD	NV101782344	10/6/2017	8.36	0020S	0400E	15	NSR2	
CLAY 66	Lode	CYPRESS HOLDINGS (NEVADA) LTD	NV101782345	10/7/2017	8.36	0020S	0400E	15	NSR2	
CLAY 67	Lode	CYPRESS HOLDINGS (NEVADA) LTD	NV101782346	10/6/2017	8.36	0020S	0400E	15	NSR2	
CLAY 68	Lode	CYPRESS HOLDINGS (NEVADA) LTD	NV101782347	10/5/2017	8.36	0020S	0400E	15	NSR2	
CLAY 69	Lode	CYPRESS HOLDINGS (NEVADA) LTD	NV101782348	10/5/2017	8.36	0020S	0400E	14	NSR2	
CLAY 70	Lode	CYPRESS HOLDINGS (NEVADA) LTD	NV101782349	10/7/2017	8.36	0020S	0400E	14 15	NSR2	
CLAY 71	Lode	CYPRESS HOLDINGS (NEVADA) LTD	NV101782350	10/5/2017	8.36	0020S	0400E	15	NSR2	
CLAY 72	Lode	CYPRESS HOLDINGS (NEVADA) LTD	NV101782351	10/5/2017	8.36	0020S	0400E	15	NSR2	
CLAY 73	Lode	CYPRESS HOLDINGS (NEVADA) LTD	NV101782352	10/5/2017	8.36	0020S	0400E	15	NSR2	
CLAY 74	Lode	CYPRESS HOLDINGS (NEVADA) LTD	NV101782353	10/5/2017	8.36	0020S	0400E	15	NSR2	
CLAY 75	Lode	CYPRESS HOLDINGS (NEVADA) LTD	NV101782354	10/5/2017	8.36	0020S	0400E	15	NSR2	
CLAY 76	Lode	CYPRESS HOLDINGS (NEVADA) LTD	NV101782355	10/5/2017	8.36	0020S	0400E	15	NSR2	
CLAY 77	Lode	CYPRESS HOLDINGS (NEVADA) LTD	NV101782356	10/6/2017	3.68	0020S	0400E	15	NSR2	
CLAY 78	Lode	CYPRESS HOLDINGS (NEVADA) LTD	NV101782357	10/12/2017	3.68	0020S	0400E	10 15	NSR2	
CLAY 79	Lode	CYPRESS HOLDINGS (NEVADA) LTD	NV101782358	10/12/2017	8.36	0020S	0400E	10 11 14 15	NSR2	
DAN 1	Lode	CYPRESS HOLDINGS (NEVADA) LTD	NV101739334	7/9/2017	8.36	0020S	0400E	11 14	NSR3	
DAN 2	Lode	CYPRESS HOLDINGS (NEVADA) LTD	NV101739335	7/9/2017	8.36	0020S	0400E	14	NSR3	
DAN 3	Lode	CYPRESS HOLDINGS (NEVADA) LTD	NV101739336	7/9/2017	8.36	0020S	0400E	14	NSR3	
DAN 4	Lode	CYPRESS HOLDINGS (NEVADA) LTD	NV101739337	7/9/2017	8.36	0020S	0400E	14	NSR3	
DAN 5	Lode	CYPRESS HOLDINGS (NEVADA) LTD	NV101739338	7/9/2017	8.36	0020S	0400E	14	NSR3	
DAN 6	Lode	CYPRESS HOLDINGS (NEVADA) LTD	NV101739339	7/9/2017	8.36	0020S	0400E	14	NSR3	
DAN 7	Lode	CYPRESS HOLDINGS (NEVADA) LTD	NV101739340	7/9/2017	8.36	0020S	0400E	14	NSR3	
DAN 8	Lode	CYPRESS HOLDINGS (NEVADA) LTD	NV101739341	7/9/2017	8.36	0020S	0400E	14	NSR3	
DAN 9	Lode	CYPRESS HOLDINGS (NEVADA) LTD	NV101739342	7/9/2017	8.09	0020S	0400E	14 23	NSR3	
DEAN 1	Placer	CYPRESS HOLDINGS (NEVADA) LTD	NV101332557	1/2/2016	8.09	0020S	0400E	14	NSR2	
DEAN 1A	Placer	CYPRESS HOLDINGS (NEVADA) LTD	NV105234190	4/7/2021	8.09	0020S	0400E	14	NSR2	
DEAN 1B	Placer	CYPRESS HOLDINGS (NEVADA) LTD	NV105234191	2/24/2021	8.09	0020S	0400E	14	NSR2	
DEAN 1C	Placer	CYPRESS HOLDINGS (NEVADA) LTD	NV105234192	2/24/2021	8.09	0020S	0400E	14 15	NSR2	
DEAN 2	Placer	CYPRESS HOLDINGS (NEVADA) LTD	NV101332558	1/2/2016	8.09	0020S	0400E	15	NSR2	
DEAN 2A	Placer	CYPRESS HOLDINGS (NEVADA) LTD	NV105234193	2/24/2021	8.09	0020S	0400E	15	NSR2	
DEAN 2B	Placer	CYPRESS HOLDINGS (NEVADA) LTD	NV105234194	2/24/2021	8.09	0020S	0400E	15	NSR2	
DEAN 2C	Placer	CYPRESS HOLDINGS (NEVADA) LTD	NV105234195	2/24/2021	8.09	0020S	0400E	15	NSR2	
DEAN 3	Placer	CYPRESS HOLDINGS (NEVADA) LTD	NV101333183	1/28/2016	8.09	0020S	0400E	15	NSR2	
DEAN 3A	Placer	CYPRESS HOLDINGS (NEVADA) LTD	NV105234196	2/24/2021	8.09	0020S	0400E	15	NSR2	
DEAN 3B	Placer	CYPRESS HOLDINGS (NEVADA) LTD	NV105234197	2/24/2021	8.09	0020S	0400E	15	NSR2	
DEAN 4	Placer	CYPRESS HOLDINGS (NEVADA) LTD	NV101333184	1/28/2016	8.09	0020S	0400E	15	NSR2	
DEAN 4A	Placer	CYPRESS HOLDINGS (NEVADA) LTD	NV105234198	2/24/2021	8.09	0020N	0400E	15	NSR2	
DEAN 4B	Placer	CYPRESS HOLDINGS (NEVADA) LTD	NV105234199	2/24/2021	8.09	0020S	0400E	15	NSR2	
DEAN 5	Placer	CYPRESS HOLDINGS (NEVADA) LTD	NV101333185	1/28/2016	8.09	0020S	0400E	15	NSR2	
DEAN 5A	Placer	CYPRESS HOLDINGS (NEVADA) LTD	NV105234200	2/25/2021	8.09	0020S	0400E	15	NSR2	
DEAN 5B	Placer	CYPRESS HOLDINGS (NEVADA) LTD	NV105234201	2/25/2021	8.09	0020S	0400E	15	NSR2	
DEAN 6	Placer	CYPRESS HOLDINGS (NEVADA) LTD	NV101333186	1/2/2016	8.09	0020S	0400E	14	NSR2	
DEAN 6A	Placer	CYPRESS HOLDINGS (NEVADA) LTD	NV105234202	2/23/2021	8.09	0202S	0400E	14	NSR2	
DEAN 6B	Placer	CYPRESS HOLDINGS (NEVADA) LTD	NV105234203	2/23/2021	8.09	0020S	0400E	14	NSR2	
DEAN 6C	Placer	CYPRESS HOLDINGS (NEVADA) LTD	NV105234204	2/23/2021	8.09	0020S	0400E	14	NSR2	
DEAN 7	Placer	CYPRESS HOLDINGS (NEVADA) LTD	NV101333187	1/2/2016	8.09	0020S	0400E	15	NSR2	
DEAN 7A	Placer	CYPRESS HOLDINGS (NEVADA) LTD	NV105234205	2/23/2021	8.09	0020S	0400E	15	NSR2	
DEAN 7B	Placer	CYPRESS HOLDINGS (NEVADA) LTD	NV105234206	2/23/2021	8.09	0020S	0400E	15	NSR2	
DEAN 7C	Placer	CYPRESS HOLDINGS (NEVADA) LTD	NV105234207	2/23/2021	8.09	0020S	0400E	15	NSR2	
DEAN 8	Placer	CYPRESS HOLDINGS (NEVADA) LTD	NV101333188	1/2/2016	8.09	0020S	0400E	15	NSR2	
DEAN 8A	Placer	CYPRESS HOLDINGS (NEVADA) LTD	NV105234208	2/23/2021	8.09	0020S	0400E	15	NSR2	







Claim Name	Type	Listed Owner	Serial Number	Date Of Location	Size (ha)	Township	Range	Section(s)	Royalty	NOTES
GLX 25	Lode	CYPRESS HOLDINGS (NEVADA) LTD	NV101763420	9/9/2018	8.36	0020S	0400E	34	NA	
GLX 26	Lode	CYPRESS HOLDINGS (NEVADA) LTD	NV101763421	9/9/2018	8.36	0020S	0400E	34	NA	
GLX 27	Lode	CYPRESS HOLDINGS (NEVADA) LTD	NV101763801	9/9/2018	8.36	0020S	0400E	34	NA	
GLX 28	Lode	CYPRESS HOLDINGS (NEVADA) LTD	NV101763802	9/9/2018	8.36	0020S	0400E	34	NA	
GLX 29	Lode	CYPRESS HOLDINGS (NEVADA) LTD	NV101763803	9/9/2018	8.36	0020S	0400E	34	NA	
GLX 30	Lode	CYPRESS HOLDINGS (NEVADA) LTD	NV101763804	9/9/2018	8.36	0020S	0400E	34	NA	
GLX 31	Lode	CYPRESS HOLDINGS (NEVADA) LTD	NV101763805	9/9/2018	8.36	0020S	0400E	34	NA	
GLX 32	Lode	CYPRESS HOLDINGS (NEVADA) LTD	NV101763806	9/9/2018	8.36	0020S	0400E	34	NA	
GLX 33	Lode	CYPRESS HOLDINGS (NEVADA) LTD	NV101763807	9/9/2018	8.36	0020S	0400E	34 35	NA	
GLX 34	Lode	CYPRESS HOLDINGS (NEVADA) LTD	NV101763808	9/9/2018	8.36	0020S	0400E	34 35	NA	
GLX 39	Lode	CYPRESS HOLDINGS (NEVADA) LTD	NV101763809	9/9/2018	8.36	0020S	0400E	34	NA	
GLX 40	Lode	CYPRESS HOLDINGS (NEVADA) LTD	NV101763810	9/9/2018	0.00	0020S	0400E	34	NA	
					8.36	0030S	0400E	3		
GLX 41	Lode	CYPRESS HOLDINGS (NEVADA) LTD	NV101763811	9/9/2018	8.36	0020S	0400E	34	NA	
GLX 42	Lode	CYPRESS HOLDINGS (NEVADA) LTD	NV101763812	9/9/2018	0.00	0020S	0400E	34	NA	
					8.36	0030S	0400E	3		
GLX 43	Lode	CYPRESS HOLDINGS (NEVADA) LTD	NV101763813	9/9/2018	8.36	0020S	0400E	34	NA	
GLX 44	Lode	CYPRESS HOLDINGS (NEVADA) LTD	NV101763814	9/9/2018	0.00	0020S	0400E	34	NA	
					8.36	0030S	0400E	3		
GLX 45	Lode	CYPRESS HOLDINGS (NEVADA) LTD	NV101763815	9/9/2018	8.36	0020S	0400E	34	NA	
GLX 46	Lode	CYPRESS HOLDINGS (NEVADA) LTD	NV101763816	9/9/2018	0.00	0020S	0400E	34	NA	
					8.36	0030S	0400E	3		
GLX 47	Lode	CYPRESS HOLDINGS (NEVADA) LTD	NV101763817	9/9/2018	8.36	0020S	0400E	34	NA	
GLX 48	Lode	CYPRESS HOLDINGS (NEVADA) LTD	NV101763818	9/9/2018	0.00	0020S	0400E	34	NA	
					8.36	0030S	0400E	3		
GLX 49	Lode	CYPRESS HOLDINGS (NEVADA) LTD	NV101763819	9/9/2018	8.36	0020S	0400E	34	NA	
GLX 50	Lode	CYPRESS HOLDINGS (NEVADA) LTD	NV101763820	9/9/2018	0.00	0020S	0400E	34	NA	
					8.36	0030S	0400E	3		
GLX 51	Lode	CYPRESS HOLDINGS (NEVADA) LTD	NV101763821	9/9/2018	8.36	0020S	0400E	34 35	NA	
GLX 52	Lode	CYPRESS HOLDINGS (NEVADA) LTD	NV101764201	9/9/2018	0.00	0020S	0400E	34 35	NA	
					8.36	0030S	0400E	2 3		
GLX 53	Lode	CYPRESS HOLDINGS (NEVADA) LTD	NV101764202	9/9/2018	8.36	0020S	0400E	22 23 26 37	NA	
GLX 54	Lode	CYPRESS HOLDINGS (NEVADA) LTD	NV101764203	9/9/2018	8.36	0020S	0400E	26 27	NA	
GLX 55	Lode	CYPRESS HOLDINGS (NEVADA) LTD	NV101764204	9/9/2018	8.36	0020S	0400E	23 26	NA	
GLX 56	Lode	CYPRESS HOLDINGS (NEVADA) LTD	NV101764205	9/9/2018	8.36	0020S	0400E	26	NA	
GLX 57	Lode	CYPRESS HOLDINGS (NEVADA) LTD	NV101764206	9/9/2018	8.36	0020S	0400E	23 26	NA	
GLX 58	Lode	CYPRESS HOLDINGS (NEVADA) LTD	NV101764207	9/9/2018	8.36	0020S	0400E	26	NA	
GLX 59	Lode	CYPRESS HOLDINGS (NEVADA) LTD	NV101764208	9/9/2018	8.36	0020S	0400E	26 27	NA	
GLX 60	Lode	CYPRESS HOLDINGS (NEVADA) LTD	NV101764209	9/9/2018	8.36	0020S	0400E	26 27 34 35	NA	
GLX 61	Lode	CYPRESS HOLDINGS (NEVADA) LTD	NV101764210	9/9/2018	8.36	0020S	0400E	26	NA	
GLX 62	Lode	CYPRESS HOLDINGS (NEVADA) LTD	NV101764211	9/9/2018	8.36	0020S	0400E	26 35	NA	
GLX 63	Lode	CYPRESS HOLDINGS (NEVADA) LTD	NV101764212	9/9/2018	8.36	0020S	0400E	26	NA	
GLX 64	Lode	CYPRESS HOLDINGS (NEVADA) LTD	NV101764213	9/9/2018	8.09	0020S	0400E	26 35	NA	
GX 1	Placer	CYPRESS HOLDINGS (NEVADA) LTD	NV101554268	7/2/2018	8.09	0020S	0400E	27	NA	
GX 2	Placer	CYPRESS HOLDINGS (NEVADA) LTD	NV101554269	7/1/2018	8.09	0020S	0400E	27	NA	
GX 3	Placer	CYPRESS HOLDINGS (NEVADA) LTD	NV101554270	7/1/2018	8.09	0020S	0400E	27	NA	
GX 4	Placer	CYPRESS HOLDINGS (NEVADA) LTD	NV101554271	7/1/2018	8.09	0020S	0400E	27	NA	
GX 5	Placer	CYPRESS HOLDINGS (NEVADA) LTD	NV101554272	7/1/2018	8.09	0020S	0400E	27	NA	
GX 6	Placer	CYPRESS HOLDINGS (NEVADA) LTD	NV101554273	7/1/2018	8.09	0020S	0400E	27	NA	
GX 7	Placer	CYPRESS HOLDINGS (NEVADA) LTD	NV101554274	7/1/2018	8.09	0020S	0400E	27	NA	
GX 8	Placer	CYPRESS HOLDINGS (NEVADA) LTD	NV101554275	7/1/2018	8.09	0020S	0400E	27	NA	
GX 9	Placer	CYPRESS HOLDINGS (NEVADA) LTD	NV101554276	7/1/2018	8.09	0020S	0400E	27	NA	
GX 10	Placer	CYPRESS HOLDINGS (NEVADA) LTD	NV101554277	7/1/2018	8.09	0020S	0400E	27	NA	
GX 11	Placer	CYPRESS HOLDINGS (NEVADA) LTD	NV101554278	7/1/2018	8.09	0020S	0400E	27	NA	
GX 12	Placer	CYPRESS HOLDINGS (NEVADA) LTD	NV101554401	7/1/2018	8.09	0020S	0400E	27	NA	
GX 13	Placer	CYPRESS HOLDINGS (NEVADA) LTD	NV101554402	7/1/2018	8.09	0020S	0400E	27	NA	
GX 14	Placer	CYPRESS HOLDINGS (NEVADA) LTD	NV101554403	7/1/2018	8.09	0020S	0400E	27	NA	
GX 15	Placer	CYPRESS HOLDINGS (NEVADA) LTD	NV101554404	7/1/2018	8.09	0020S	0400E	27	NA	
GX 16	Placer	CYPRESS HOLDINGS (NEVADA) LTD	NV101554405	7/1/2018	8.09	0020S	0400E	27	NA	
GX 17	Placer	CYPRESS HOLDINGS (NEVADA) LTD	NV105290433	10/28/2021	8.09	0020S	0400E	34	NA	
GX 18	Placer	CYPRESS HOLDINGS (NEVADA) LTD	NV105290434	10/28/2021	8.09	0020S	0400E	34	NA	
GX 19	Placer	CYPRESS HOLDINGS (NEVADA) LTD	NV105290435	10/28/2021	8.09	0020S	0400E	34	NA	
GX 20	Placer	CYPRESS HOLDINGS (NEVADA) LTD	NV105290436	10/28/2021	8.09	0020S	0400E	34	NA	



Claim Name	Type	Listed Owner	Serial Number	Date Of Location	Size (ha)	Township	Range	Section(s)	Royalty	NOTES
JLS 33	Lode	CYPRESS HOLDINGS (NEVADA) LTD	NV101545678	9/25/2016	8.36	0020S	0400E	27 28	NSR1	
JLS 34	Lode	CYPRESS HOLDINGS (NEVADA) LTD	NV101545679	9/25/2016	8.36	0020S	0400E	28	NSR1	
JLS 35	Lode	CYPRESS HOLDINGS (NEVADA) LTD	NV101545680	9/25/2016	8.36	0020S	0400E	28	NSR1	
JLS 36	Lode	CYPRESS HOLDINGS (NEVADA) LTD	NV101545681	9/25/2016	8.36	0020S	0400E	28	NSR1	
JLS 37	Lode	CYPRESS HOLDINGS (NEVADA) LTD	NV101545682	9/25/2016	8.36	0020S	0400E	28	NSR1	
JLS 38	Lode	CYPRESS HOLDINGS (NEVADA) LTD	NV101545683	9/25/2016	8.36	0020S	0400E	28	NSR1	
JLS 39	Lode	CYPRESS HOLDINGS (NEVADA) LTD	NV101545684	9/25/2016	8.36	0020S	0400E	28	NSR1	
JLS 40	Lode	CYPRESS HOLDINGS (NEVADA) LTD	NV101545389	9/25/2016	8.36	0020S	0400E	27 28	NSR1	
JLS 41	Lode	CYPRESS HOLDINGS (NEVADA) LTD	NV101545390	9/25/2016	8.36	0020S	0400E	28	NSR1	
JLS 42	Lode	CYPRESS HOLDINGS (NEVADA) LTD	NV101545391	9/25/2016	8.36	0020S	0400E	28 33	NSR1	
JLS 43	Lode	CYPRESS HOLDINGS (NEVADA) LTD	NV101545392	9/25/2016	8.36	0020S	0400E	33	NSR1	
JLS 44	Lode	CYPRESS HOLDINGS (NEVADA) LTD	NV101545393	9/25/2016	8.36	0020S	0400E	28 33	NSR1	
JLS 45	Lode	CYPRESS HOLDINGS (NEVADA) LTD	NV101545394	9/25/2016	8.36	0020S	0400E	33	NSR1	
JLS 46	Lode	CYPRESS HOLDINGS (NEVADA) LTD	NV101545395	9/25/2016	8.36	0020S	0400E	28 33	NSR1	
JLS 47	Lode	CYPRESS HOLDINGS (NEVADA) LTD	NV101545396	9/25/2016	8.36	0020S	0400E	33	NSR1	
JLS 48	Lode	CYPRESS HOLDINGS (NEVADA) LTD	NV101545397	9/25/2016	8.36	0020S	0400E	28 33	NSR1	
JLS 49	Lode	CYPRESS HOLDINGS (NEVADA) LTD	NV101545398	9/25/2016	8.36	0020S	0400E	33	NSR1	
JLS 50	Lode	CYPRESS HOLDINGS (NEVADA) LTD	NV101545399	9/25/2016	8.36	0020S	0400E	27	NSR1	
JLS 51	Lode	CYPRESS HOLDINGS (NEVADA) LTD	NV101545400	9/25/2016	8.36	0020S	0400E	27	NSR1	
JLS 52	Lode	CYPRESS HOLDINGS (NEVADA) LTD	NV101545401	9/25/2016	8.36	0020S	0400E	27	NSR1	
JLS 53	Lode	CYPRESS HOLDINGS (NEVADA) LTD	NV101546706	9/25/2016	8.36	0020S	0400E	27	NSR1	
JLS 54	Lode	CYPRESS HOLDINGS (NEVADA) LTD	NV101546707	9/25/2016	8.36	0020S	0400E	27	NSR1	
JLS 55	Lode	CYPRESS HOLDINGS (NEVADA) LTD	NV101546708	9/25/2016	8.36	0020S	0400E	27	NSR1	
JLS 56	Lode	CYPRESS HOLDINGS (NEVADA) LTD	NV101546709	9/25/2016	8.36	0020S	0400E	27	NSR1	
JLS 57	Lode	CYPRESS HOLDINGS (NEVADA) LTD	NV101546710	9/25/2016	8.36	0020S	0400E	27	NSR1	
JLS 58	Lode	CYPRESS HOLDINGS (NEVADA) LTD	NV101546711	9/25/2016	8.36	0020S	0400E	27	NSR1	
JLS 59	Lode	CYPRESS HOLDINGS (NEVADA) LTD	NV101546712	9/25/2016	8.36	0020S	0400E	27	NSR1	
JLS 60	Lode	CYPRESS HOLDINGS (NEVADA) LTD	NV101546713	9/25/2016	8.36	0020S	0400E	27	NSR1	
JLS 61	Lode	CYPRESS HOLDINGS (NEVADA) LTD	NV101546714	9/25/2016	8.36	0020S	0400E	27	NSR1	
JLS 62	Lode	CYPRESS HOLDINGS (NEVADA) LTD	NV101546715	9/25/2016	8.36	0020S	0400E	27	NSR1	
JLS 63	Lode	CYPRESS HOLDINGS (NEVADA) LTD	NV101546716	9/25/2016	8.36	0020S	0400E	27	NSR1	
JLS 64	Lode	CYPRESS HOLDINGS (NEVADA) LTD	NV101546717	9/25/2016	8.36	0020S	0400E	27	NSR1	
JLS 65	Lode	CYPRESS HOLDINGS (NEVADA) LTD	NV101546718	9/25/2016	2.79	0020S	0400E	27	NSR1	
JLS 66	Lode	CYPRESS HOLDINGS (NEVADA) LTD	NV101546719	9/25/2016	2.79	0020S	0400E	28	NSR1	
JLS 67	Lode	CYPRESS HOLDINGS (NEVADA) LTD	NV101546720	9/25/2016	2.79	0020S	0400E	28	NSR1	
JLS 68	Lode	CYPRESS HOLDINGS (NEVADA) LTD	NV101546721	9/25/2016	8.36	0020S	0400E	32	NSR1	
JLS 69	Lode	CYPRESS HOLDINGS (NEVADA) LTD	NV101546722	9/25/2016	8.36	0020S	0400E	32	NSR1	
JLS 70	Lode	CYPRESS HOLDINGS (NEVADA) LTD	NV101546723	9/25/2016	8.36	0020S	0400E	32	NSR1	
JLS 71	Lode	CYPRESS HOLDINGS (NEVADA) LTD	NV101546724	9/25/2016	8.36	0020S	0400E	28	NSR1	
LONGSTREET 1	Lode	CYPRESS HOLDINGS (NEVADA) LTD	NV101544583	9/23/2016	8.09	0020S	0400E	28	NSR1	
MCGEE 2	Placer	CYPRESS HOLDINGS (NEVADA) LTD	NV101388149	1/24/2016	8.09	0030S	0400E	5	NSR1	
MCGEE 3	Placer	CYPRESS HOLDINGS (NEVADA) LTD	NV101388150	1/24/2016	8.09	0030S	0400E	5	NSR1	
MCGEE 4	Placer	CYPRESS HOLDINGS (NEVADA) LTD	NV101388151	1/24/2016	8.09	0030S	0400E	5	NSR1	
MCGEE 9	Placer	CYPRESS HOLDINGS (NEVADA) LTD	NV101388152	1/24/2016	8.09	0030S	0400E	5	NSR1	
MCGEE 10	Placer	CYPRESS HOLDINGS (NEVADA) LTD	NV101388153	1/24/2016	8.09	0030S	0400E	5	NSR1	
MCGEE 11	Placer	CYPRESS HOLDINGS (NEVADA) LTD	NV101388154	1/24/2016	8.09	0030S	0400E	5	NSR1	
MCGEE 18	Placer	CYPRESS HOLDINGS (NEVADA) LTD	NV101783884	7/25/2016	8.09	0030S	0400E	5	NSR1	
MCGEE 19	Placer	CYPRESS HOLDINGS (NEVADA) LTD	NV101783885	7/25/2016	8.09	0030S	0400E	5	NSR1	
MCGEE 22	Placer	CYPRESS HOLDINGS (NEVADA) LTD	NV101388155	1/24/2016	8.09	0030S	0400E	5	NSR1	
MCGEE 23	Placer	CYPRESS HOLDINGS (NEVADA) LTD	NV101388156	1/24/2016	8.09	0030S	0400E	5	NSR1	
MCGEE 28	Placer	CYPRESS HOLDINGS (NEVADA) LTD	NV101388157	1/24/2016	8.09	0020S	0400E	32	NSR1	
MCGEE 29	Placer	CYPRESS HOLDINGS (NEVADA) LTD	NV101388158	1/24/2016	7.36	0020S	0400E	32	NSR1	
NDL 1	Lode	CYPRESS HOLDINGS (NV) LTD	NV106301910	5/16/2023	7.36	0020S	0400E	16	NA	
NDL 2	Lode	CYPRESS HOLDINGS (NV) LTD	NV106301911	5/16/2023	2.45	0020S	0400E	16	NA	
NDL 3	Lode	CYPRESS HOLDINGS (NV) LTD	NV106301912	3/16/2023	2.45	0020S	0400E	16	NA	
NDL 4	Lode	CYPRESS HOLDINGS (NV) LTD	NV106301913	5/16/2023	7.36	0020S	0400E	16	NA	
NDL 5	Lode	CYPRESS HOLDINGS (NV) LTD	NV106301914	5/16/2023	2.45	0020S	0400E	16	NA	
NDL 6	Lode	CYPRESS HOLDINGS (NV) LTD	NV106301915	5/16/2023	8.09	0020S	0400E	16	NA	
NDP 1	Placer	CYPRESS HOLDINGS (NV) LTD	NV106301926	5/13/2023	8.09	0020S	0400E	2	NA	
NDP 2	Placer	CYPRESS HOLDINGS (NV) LTD	NV106301927	5/13/2023	8.09	0020S	0400E	2	NA	
NDP 3	Placer	CYPRESS HOLDINGS (NV) LTD	NV106301928	5/13/2023	8.09	0020S	0400E	2	NA	
STEVE 1	Placer	CYPRESS HOLDINGS (NEVADA) LTD	NV101739343	7/8/2017	8.09	0020S	0400E	14	NSR3	
STEVE 2	Placer	CYPRESS HOLDINGS (NEVADA) LTD	NV101850484	7/8/2017	8.09	0020S	0400E	14	NSR3	

Claim Name	Type	Listed Owner	Serial Number	Date Of Location	Size (ha)	Township	Range	Section(s)	Royalty	NOTES
STEVE 3	Placer	CYPRESS HOLDINGS (NEVADA) LTD	NV101850485	7/8/2017	8.09	0020S	0400E	14	NSR3	
STEVE 4	Placer	CYPRESS HOLDINGS (NEVADA) LTD	NV101850486	7/8/2017	8.09	0020S	0400E	14	NSR3	
STEVE 5	Placer	CYPRESS HOLDINGS (NEVADA) LTD	NV101850487	7/8/2017	8.09	0020S	0400E	14	NSR3	
STEVE 6	Placer	CYPRESS HOLDINGS (NEVADA) LTD	NV101850488	7/8/2017	8.09	0020S	0400E	14	NSR3	
STEVE 7	Placer	CYPRESS HOLDINGS (NEVADA) LTD	NV101850489	7/8/2017	8.09	0020S	0400E	14	NSR3	
STEVE 8	Placer	CYPRESS HOLDINGS (NEVADA) LTD	NV101850490	7/8/2017	8.09	0020S	0400E	14	NSR3	