Stantec

Technical Report and Mineral Resource Estimate - Falchani Property

Carabaya Province, Department of Puno, South-Eastern Peru

Submitted to:
American Lithium Corporation

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Project No. 210223585

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CERTIFICATE OF QUALIFICATIONS

I, Mariea K. Kartick, P.Geo., do hereby certify that:

1. I am currently employed as a Resource Geologist by Stantec Services Inc., 410 17th Street Suite 1400 Denver, CO 80402.
2. I graduated with a Master of Science Degree in Geology in 2015 and a Bachelor of Science Degree with Honors in 2014 from the University of Toronto in Toronto, Canada.
3. I am a licensed Professional Geoscientist in the Province of Ontario, Canada. I am a member in-good-standing of the Association of Professional Geoscientist of Ontario (Member 3226) since February 24, 2020.
4. I have worked as a geologist for a total of ten years since my graduation from university, both for mining and exploration companies and as a consultant specializing in resource evaluation for precious metals and critical minerals. I have many years' experience exploring and modelling volcanic hosted metal deposits of high concentrations in the United States, Canada and Mexico, as well as stratiform lithium clay deposits and lithium pegmatite deposits in the United States.
5. I have read the definition of "qualified person" set out in National Instrument 43-101 (NI 43-101) and certify that by reason of my education, affiliation with a professional association (as defined in NI 43-101), and past relevant work experience, I meet the requirements to be a "Qualified Person" for the purposes of NI 43-101.
6. I am responsible for portions of all Sections of this Technical Report titled "Technical Report and Mineral Resource Estimate for the Falchani Property" (the "Technical Report") dated December 14, 2023, Effective Date October 31, 2023.
7. I have read NI 43-101 and Form 43-101F1, and the Technical Report has been prepared in compliance with that instrument and form.
8. I personally inspected the property in May 2023.
9. I have not had any prior involvement with the property that is the subject of this Technical Report.
10. At the effective date of the Technical Report, to the best of my knowledge, information, and belief, the Technical Report contains all scientific and technical information that is required to be disclosed to make the Technical Report not misleading.
11. I am not aware of any material fact or material change with respect to the subject matter of the Technical Report that is not reflected in the Report, the omission to disclose which makes the Report misleading.
12. I am independent of the issuer applying all of the tests in Part 1.5 of NI 43-101CP.

Dated December 14, 2023

"Original Signed and Sealed by Author"

Mariea K. Kartick P.Geo.
Resource Geologist

CERTIFICATE OF QUALIFICATIONS

I, Derek J. Loveday, P.Geo., do hereby certify that:

1. I am currently employed as a Project Manager by Stantec Services Inc., 2890 East Cottonwood Parkway Suite 300, Salt Lake City UT 84121-7283.

2. I graduated with a Bachelor of Science Honors Degree in Geology from Rhodes University, Grahamstown, South Africa in 1992.

3. I am a licensed Professional Geoscientist in the Province of Alberta, Canada, #159394. I am registered with the South African Council for Natural Scientific Professions (SACNASP) as a Geological Scientist #400022/03.

4. I have worked as a geologist for a total of thirty years since my graduation from university, both for mining and exploration companies and as a consultant specializing in resource evaluation for precious metals and industrial minerals. I have many years' experience exploring and modelling volcanic hosted metal deposits of high concentrations in the United States, Canada and Australia, as well as stratiform lithium clay deposits and lithium pegmatite deposits in the United States.

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

6. I am responsible for the preparation of portions of all Sections of this Technical Report titled "Technical Report and Mineral Resource Estimate for the Falchani Property" (the "Technical Report") dated December 14, 2023, Effective Date October 31, 2023.

7. I have read NI 43-101 and Form 43-101F1, and the Technical Report has been prepared in compliance with that instrument and form.

8. I personally inspected the property in May 2023.

9. At the effective date of the Technical Report, to the best of my knowledge, information, and belief, the Technical Report contains all scientific and technical information that is required to be disclosed to make the Technical Report not misleading.

10. I am not aware of any material fact or material change with respect to the subject matter of the Technical Report that is not reflected in the Report, the omission to disclose which makes the Report misleading.

11. I am independent of the issuer applying all of the tests in Part 1.5 of NI 43-101CP.

Dated December 14, 2023

"Original Signed and Sealed by Author"

Derek J. Loveday, P.Geo.
Project Manager

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1.0 EXECUTIVE SUMMARY

Introduction

This Technical Report and Mineral Resource for the Falchani Property was prepared by Stantec Consulting Services Inc. (Stantec) for American Lithium Corporation (American Lithium) in accordance with the requirements of National Instrument 43-101 Standards of Disclosure for Mineral Projects (NI 43-101). This Technical Report is an update of a prior Technical Report on the Falchani Lithium Property (the Property) completed by Nupen (2019).

Property Description and Location

Falchani (the Property) is an exploration property located in the Carabaya Province, Department of Puno in the south-eastern part of Peru. The Property falls within an amalgamation of licenses held by American Lithium that are distributed on the Macusani Plateau or collectively referred to as the Macusani Project Area (MPA). The MPA is located approximately 650 km east southeast of Lima and about 220 km by road from Juliaca in the south. The town of Macusani is some 25 km to the southeast of the Macusani Plateau. The MPA concessions lie between WGS84 UTM Zone 19S coordinates 320,000 and 340,000 East and 8,444,000 and 8,467,500 North. The MPA covers a total area of 109,057 hectares (ha) of which the Falchani Property mineral resource covers four concessions totalling 2,800 ha.

Property Concessions

The Mineral Resources in this report fall within four (4) mining concessions, as shown in Table 1.1. As described in Section 6.3, Macusani Yellowcake is 100% controlled and 99.5% owned by American Lithium For the purpose of this Mineral Resource estimate.

Table 1.1 Falchani Mineral Resource Mining Concessions

Concession Number	Owner/ Title	Date	Area (Ha)
010320205	MACUSANI YELLOWCAKE S.A.C.	2005-10-13	700
010076505	MACUSANI YELLOWCAKE S.A.C.	2005-03-28	500
010078105	MACUSANI YELLOWCAKE S.A.C.	2005-03-29	600
010215005	MACUSANI YELLOWCAKE S.A.C.	2005-07-11	1,000

Geological Setting and Mineralization

The lithium occurrences at Falchani are hosted in an ash-flow Tuff named Lithium Rich Tuff (LRT) and volcanoclastic breccias (Upper and Lower Breccia, UBX and LBX) that bound the LRT. Lithium mineralization is also observed in the basal Coarse Felsic Intrusion (CFI) which is interpreted to be a stratiform felsic intrusion underlying the above lithium host rocks. Elevated concentrations of cesium, potassium, and rubidium are associated with lithium mineralization and these elements show potential to be included as a byproduct of lithium processing to produce battery grade lithium carbonate.

The general dimensions of the mineralized zone at Falchani covers an area approximately 3,300 m wide by 2,440 m long extending from outcrop to a maximum modelled depth of approximately 1,000 m below surface. The mineralization is continuous from surface. The highest and most consistent lithium grades occur in the LRT. The basement mineralized coarse felsic intrusion has a known depth of 400 m from drillhole intercepts, however the maximum thickness of the unit is still unknown.

Historical Estimates

Two prior estimates have been documented for the Falchani Property. In 2018, by The Mineral Corporation (TMC) (Nupen, 2018) for Plateau Energy Metals Inc. In 2019, TMC updated their estimates (Nupen, 2019) for Plateau Energy Metals Inc. Table 1.2 shows the 2018 historical estimates and Table 1.3 shows the 2019 historical estimates.

Table 1.2 2018 Historical Estimates (Nupen, 2018)

Category	Metric Tonnes (Mt)	Density	Li (ppm)	Li_2O	Li_2O_3	Contained Li_2CO_3 (Mt)
Indicated	40.58	2.4	3,104	0.67	1.65	0.67
Inferred	121.7	2.4	2,724	0.59	1.45	1.76

Li (ppm) grade cut-off of 1,000 Li (ppm) applied

Li Conversion Factors as follows: Li:Li2O=2.153; Li:Li2CO3=5.323; Li2O:Li2CO3=2.473

Table 1.3 2019 Historical Estimates (Nupen, 2019)

Category	Metric Tonnes (Mt)	Density	Li (ppm)	Li_2O	Li_2O_3	Contained Li_2CO_3 (Mt)
Indicated	60.92	2.4	2,954	0.64	1.57	0.96
Inferred	260.07	2.4	2,706	0.58	1.44	3.75

Li (ppm) grade cut-off of 1,000 Li (ppm) applied

Li Conversion Factors as follows: Li:Li2O=2.153; Li:Li2CO3=5.323; Li2O:Li2CO3=2.473

The Qualified Person (QP) is of the opinion that TMC's approach in generating the historic estimates shown in Table 1.2 and Table 1.3 follows general best practice. However, since 2019 additional exploration drilling has been completed on the Property and lithium market price projects have changed. These are material to the Project as demonstrated in updated Mineral Resource Estimates, effective October 31, 2023.

The Author has not done sufficient work to classify the historical estimates as current mineral resources and the issuer is not treating the historical estimates as current mineral resources reserves.

Exploration and Site Inspection

The previous technical report (Riordan et al., 2020; Nupen, 2019) drillhole database included holes from the 2017 and 2018 drilling campaigns and consisted of 52 diamond core holes totaling a length of 14,816 m. For this Technical Report update, an additional 15 piezometer drill holes were completed for a total of 67 drill holes used to define the mineral resource estimate. All exploration sampling was subject to industry standard quality assurance and quality control (QAQC) processes including appropriate use of use of blanks, duplicates, and standards.

A drone-based laser imaging detection and ranging (LiDAR) Survey was flown by Global Mapping S.A.C. during April 2023. The results of this survey were used in the building of the geologic resource model described in Section 14.

The Authors and Qualified Persons, Derek Loveday, P.Geo. and Mariea Kartick, P.Geo. completed site investigations of the Falchani Property from May 19 to 20, 2023.

Mineral Processing and Metallurgical Testing

Mineral processing and metallurgical testing are detailed in the prior 2020 Preliminary Economic Assessment (PEA) (Riordan et al., 2020). The metallurgical testing program is managed by DRA Global Limited (DRA), an independent engineering company to American Lithium and Stantec. The results and associated interpretation of the metallurgical testing is still in progress and will be released in a Preliminary Economic Assessment (PEA) Report that is to follow this Technical Report.

Assessment of Reasonable Prospects for Eventual Economic Extraction

A base case lithium resource cut-off grade has been calculated based on the economics of a medium size (100 Mtpa) run-of-mine (ROM) surface mining operation. Processing of the mineralized material would be onsite extracting lithium from volcanic tuffs, volcanic breccias and a coarse felsic intrusion using an acid digestion method. Resources are reported from within an economic pit shell at 45° constant slope using Hexagon Mining's Pseudoflow algorithm. Maximum pit depth is limited to 300 m below surface. No underground mining is considered.

The following mining, processing, royalty, and recovery costs, in US$, were used to derive a base case cut-off grade to produce a lithium carbonate (Li_2CO_3) equivalent product: Mining costs US$2.5/tonne; Processing costs US$50/tonne; General and administration US$1/tonne; and Processing recovery of 80%. Revenue from a lithium carbonate product is estimated to be US$20,000/tonne for the cutoff grade calculation. Using the above inputs and Li_2CO_3:Li ratio of 5.32, a base case cut-off grade for lithium is estimated to be 600 ppm. The base case cut-off grade of 600 ppm lithium is lower than the previous (Riordan et al., 2020) Mineral Resource Estimate cut-off grade of 1000 ppm lithium, mostly due to an increase in the assumed lithium carbonate price compared to the prior MRE.

Mineral Resource Estimation

The geologic model from which lithium resources are reported is a 3D block model developed using the World Geodetic System (WGS) 1984 UTM Zone 19S and is in metric units. The geologic model is separated into seven lithological zones of which four mineralized zones exist. The lithologic zones are, from top to bottom: Overburden, Upper Rhyolite, mineralized Upper Breccia (UBX), mineralized Lithium Rich Tuff (LRT), mineralized Lower Breccia (LBX), mineralized Coarse Felsic Intrusion (CFI) basement unit, and Rhyolite Subvolcanic Intrusion. The lithologic zones are further separated into nine (9) fault blocks that are split by two (2) north-south trending high angle normal faults (Valley Fault and East Fault) and six (6) northwest and southwest trending normal faults (NW1 through NW6). The lithium, as well as cesium, potassium and rubidium grades from exploration drilling were estimated into the bocks using an inverse distance algorithm. Semi-variograms were used as guide in the estimation process and classification of mineral resource estimates into assurance categories.

Mineral resources for the upper three mineralized zones (UBX, LRT and LBX) are classified by distance from nearest valid drill hole sample up to a maximum distance of 250 m for inferred, 160 m indicated, and 80 m measured. Mineral resources for the CFI are within 160 m for inferred, 80 m indicated, and 40 m measured.

The lithium mineral resource estimates are presented in Table 1.4 in metric units. The resource estimates are contained within an economic pit shell at constant 45° pit slope to a maximum vertical depth of 300 m below surface. Lithium resources are presented for a range of cutoff grades to a maximum of 5,000 ppm lithium. The base case lithium resource estimates are highlighted in bold type in Table 1.4. All lithium resources on the Falchani Property are surface mineable at a stripping ratio of 0.4 BCM/metric tonne at the base case cutoff grade of 600 ppm lithium. The effective date of the lithium resource estimate is October 31, 2023.

Table 1.4 Mineral Resource Estimate effective October 31, 2023

Cutoff	Volume	Tonnes	Li	Metric Tonnes (Mt)			Cs	K	Rb
Li (ppm)	(Mm3)	(Mt)	(ppm)	Li	Li2CO3	LiOH.H20	(ppm)	(%)	(ppm)
Measured									
600	29	69	2,792	0.19	1.01	1.15	631	2.74	1,171
800	28	68	2,832	0.19	1.01	1.15	641	2.72	1,194
1,000	27	65	2,915	0.19	1.01	1.15	647	2.71	1,208
1,200	25	61	3,024	0.18	0.96	1.09	616	2.74	1,228
1,400	24	57	3,142	0.18	0.96	1.09	547	2.78	1,250
Indicated									
600	156	378	2,251	0.85	4.52	5.14	1,039	2.92	1,055
800	148	357	2,342	0.84	4.47	5.08	1,058	2.90	1,070
1,000	136	327	2,472	0.81	4.31	4.90	1,095	2.87	1,104
1,200	129	310	2,549	0.79	4.20	4.78	1,086	2.86	1,146
1,400	120	288	2,646	0.76	4.04	4.60	1,041	2.88	1,166
Measured plus Indicated									
600	185	447	2,327	1.04	5.53	6.29	976	2.90	1,072
800	176	425	2,424	1.03	5.48	6.23	991	2.87	1,090
1,000	163	392	2,551	1.00	5.32	6.05	1,021	2.84	1,121
1,200	154	371	2,615	0.97	5.16	5.87	1,009	2.84	1,160
1,400	144	345	2,725	0.94	5.00	5.69	960	2.86	1,180
Inferred									
600	198	506	1,481	0.75	3.99	4.54	778	3.31	736
800	174	443	1,597	0.71	3.78	4.30	837	3.24	762
1,000	138	348	1,785	0.62	3.30	3.75	886	3.18	796
1,200	110	276	1,961	0.54	2.87	3.27	942	3.10	850
1,400	82	201	2,211	0.44	2.34	2.66	1,022	3.01	926

- CIM definitions are followed for classification of Mineral Resource.
- Mineral Resource surface pit extent has been estimated using a lithium carbonate price of US20,000 US$/tonne and mining cost of US$3.00 per tonne, a lithium recovery of 90%, fixed density of 2.40 g/cm3
- Conversions: 1 metric tonne = 1.102 short tons, metric m3 = 1.308 yd3, Li2CO3:Li ratio = 5.32, LiOH.H2O:Li ratio =6.05
- Totals may not represent the sum of the parts due to rounding.
- The Mineral Resource estimate has been prepared by Mariea Kartick, P. Geo., and Derek Loveday, P. Geo. Of Stantec Consulting Services Inc. in conformity with CIM "Estimation of Mineral Resource and Mineral Reserves Best Practices" guidelines and are reported in accordance with the Canadian Securities Administrators NI 43-101. Mineral resources are not mineral reserves and do not have demonstrated economic viability. There is no certainty that any mineral resource will be converted into mineral reserve.

Interpretations and Conclusions

Exploration of the Falchani property has been successful in identifying a mineral resource of lithium and ancillary cesium, rubidium, and potassium. The Falchani lithium deposit is unique in its host rock and mineralization. The lithium occurrences are hosted in an ash-flow Lithium Rich Tuff (LRT) and volcanoclastic breccias (Upper and Lower Breccia, UBX and LBX, respectively) that bound the LRT. Lithium mineralization is also observed in the basal Coarse Felsic Intrusion (CFI) which is interpreted to be a stratiform felsic intrusion underlying the above lithium host rocks.

Potential risks that may impact accuracy of the mineral resource estimates are:

- The resource is limited to within two E-W fault blocks east of the Valley Fault as described in Section 14.4.3 that may shift location given further exploration. Should new supporting data support a significant shift in the fault locations this may have a material impact on the resource estimates.

- The CFI basement and the other volcanics around the extremities of the Property are only recognized from 28 drillholes. Future exploration drilling in these areas of the Property may show these intrusions and other volcanics extending into the Property below surface. This may have a material impact on the resource estimates in these regions of the deposit.

- Metallurgical test currently under the control of DRA may indicate that the input costs for the practical extraction of lithium to be higher than anticipated. Since processing costs are a significant component of lithium carbonate (or lithium hydroxide monohydrate) production, the lithium cutoff grade may be higher than the base case cutoff grade of 600 ppm used for the lithium resource estimates.

- Given the uniform densities applied to the mineralized zones, Stantec believes the density to be adequate for resource estimation, however, additional density data would support more accurate mineral resource tonnage estimates.

There is potential for elevated uranium concentrations on Falchani based on proximity of the deposit to the Macusani Yellowcake project located 5-25 km east and north of the property.

Recommendations

The Falchani mineral resource estimation has relied on exploration drilling results. The following development path is recommended for the Falchani Project.

Phase 1 Work Program Surface Mapping

Surface mapping of the Project area will provide additional information that will enhance the understanding of the structural geology and faulting within the property. This information will greatly improve the accuracy of the current geologic model and resource estimates. Structural mapping will validate and focus the interpolated faults in the geologic model. The Authors site inspection of the property identified areas of exposed rhyolite outcrops on the Property that could be mapped in detail. Costs for a geologist and mapping program is listed in Table 1.5 below.

Table 1.5 Phase 1 Surface Mapping Program Costs

Activity	Unit costs (US$)	No.	Cost (US$)
Surface Mapping	1,000/day	14	14,000
Grab Sample Assay	50/sample	120	6,000
Structural modeling	1,200/day	8	9,600
		Total	29,600

Phase 2 Work Program Infill Drilling and Modeling

The proposed Phase 2 program is not dependent on the successful results of the Phase 1 program above. For Phase 2 an infill drilling program of approximately 2,500 m is recommended to improve the mineral resource confidence. Estimated costs for the Phase 2 program is outlined in Table 1.6 below.

Table 1.6 Phase 2 Infill Drilling Costs

Activity	Unit costs (US$)	No.	Cost (US$)
Core Drilling	200/m	2,500	500,000
Core Sample Assay	50/sample	2,000	100,000
Resource Modeling	n/a	n/a	50,000
		Total	650,000

2.0 INTRODUCTION

This Technical Report was prepared by Stantec Consulting Services Inc. (Stantec) for American Lithium Corporation (American Lithium) in accordance with the requirements of National Instrument 43-101 Standards of Disclosure for Mineral Projects (NI 43-101). This Technical Report is an update of a prior Technical Report on the Falchani Lithium Property (the Property) completed by Nupen (2019).

Information used in the compilation of the Technical Report was provided by American Lithium as well as from public domain sources. All source of information in addition to the American Lithium's exploration data are listed in the reference Section 27.

The authors and independent Stantec Qualified Personnel (QP) have inspected the Property in May 2023. The QP's verified drill hole locations, and reviewed core, geological logs, and sample handling procedures.

The "Effective Date" means, with reference to a Technical Report, the date of the most recent scientific or technical information included in the Technical Report

3.0 RELIANCE ON OTHER EXPERTS

The Qualified Person(s) did not rely on a report, opinion or statement of another expert who is not a qualified person, or on information provided by the issuer, concerning legal, political, environmental, or tax matters.

4.0 PROPERTY DESCRIPTION AND LOCATION

Peru is divided into 24 “Departments”, each of which is subdivided into provinces and districts or regions. The American Lithium concessions are located in the Carabaya Province which is a province of the Department of Puno in the south-eastern part of Peru. The Carabaya Province is divided into ten districts or regions. It is bounded to the north by the Madre de Dios Region, on the east by the Sandia Province, to the south by the provinces of Azángaro, Melgar and Putina and on the west by the Cusco Region. The capital of the province is Macusani. The people in the province are mainly indigenous citizens of Quechua descent. Quechua is the language which the majority of the population (84%) learn to speak from childhood, while 15% of the residents use the Spanish language and <1% communicate in Aymara.

Falchani is an exploration property located on the Macusani Plateau and falls within licenses held by Macusani Yellowcake S.A.C (Macusani Yellowcake), formerly Global Gold S.A.C, which is 100% controlled and 99.5% owned by American Lithium. American Lithium has a number of other exploration properties on the Macusani Plateau, which are primarily uranium exploration properties, and for which Mineral Resources have been declared. The combination of American Lithium’ exploration properties on the Macusani Plateau is referred to as the Macusani Project Area (MPA). The locality of the Macusani Project Area (MPA) is shown in Figure 4-1, General Location Map. The portfolio comprises the amalgamation of those rights held by American Lithium along with along with six uranium Complexes. American Lithium owned concessions that include the lithium mineral resource outlined in Section 14 of the report is shown in Figure 4-2, Mineral Tenure Map.

The MPA is located approximately 650 km east southeast of Lima and about 220 km by road from Juliaca in the south. The town of Macusani is some 25 km to the southeast of the Macusani Plateau. The MPA covers a total area of 109,057 ha.

The survey reference system utilized for this report is Universal Transverse Mercator, Zone 19S, using the WGS 1984 datum, hereafter referred to as WGS84 UTM Zone 19S. The MPA concessions lie between the coordinates 320,000 and 340,000 East and 8,444,000 and 8,467,500 North.

4.1 Mineral Tenure

4.1.1 Regulatory Mechanism

Mining in Peru is primarily regulated by national laws and regulations enacted by the Peruvian Congress and the executive branch of government. The principal legal framework on mining is set forth in the 1992 General Mining Law and its amendments to promote the development of the mineral resources of the nation. The mining sector is regulated by its Law and Regulations on Organization and Functions, pursuant to which the Ministry of Energy and Mines (MEM) was created. It is the principal government entity that, together with its various offices, departments, and agencies, is responsible for the mining sector in Peru. The MEM is a member of the executive branch of government and is responsible for putting in place specific policies and rules governing the matters in its jurisdiction, namely energy, hydrocarbon, and mining activities.

Investment promotion laws, the Peruvian tax regime and environmental framework are other components of the Peruvian mining landscape. Concessions are granted for exploration, exploitation, beneficiation, auxiliary services, and transportation by the MEM. No concessions are required for reconnaissance, prospecting, or trading.

4.1.2 Property and Title

The general mining law defines and regulates different categories of mining activities according to stage of development (prospecting, exploitation, processing, and marketing). The ownership of mineral claims is controlled by mining concessions which are established using UTM coordinates to define areas of interest and measured in hectares. While the holder of a mining concession is protected under the Peruvian Constitution and the Civil Code, it does not confer ownership of land and the owner of a mining concession must deal with the registered landowner to obtain the right of access to fulfil the production obligations inherent in the concession grant. It is important to recognize that all transactions and contracts pertaining to a mining concession must be duly registered with the Public Mining Registry in the event of subsequent disputes at law.

4.1.3 Environmental Regulations

The General Mining Law, administered by the MEM, may require a mining company to prepare an Environmental Evaluation (EA) Peru, an Environmental Impact Assessment (EIA), a Program for Environmental Management and Adjustment (PAMA) and a Closure Plan prior to mining construction and operation.

4.1.4 Granting of Mining Concessions

MEM grants mining concessions to local or foreign individuals or legal entities, through a specialized body called The Institute of Geology, Mining and Metallurgy (INGEMMET). A mining concession grants its holder the right to explore and exploit minerals within its area and the key characteristics include:

- Concessions are exclusive, freely transferable and mortgageable
- Location is in WGS84 UTM Zone 19S
- The aerial extent of concessions ranges from 100 ha to 1,000 ha
- Granted on a first-come, first served basis, without preference given to the technical and financial qualifications of the applicant
- With the exception of mining concessions granted within urban expansion areas, the term of a mining concession is indefinite but with restrictions and objective based criteria including payment of annual license fees of US$3 per hectare. Failure to pay the applicable license fees for two consecutive years will result in the termination of the mining concession
- A single annual fee is payable; and
- Access to the property must be negotiated with surface landowners.

4.1.5 Work Programme for Mining Concessions

A work program and expenditure schedule have to be presented in Year 7 of the life of a mining concession to the MEM and penalties are incurred for under expenditure. By Year 12 of the life of a mining concession, it is expected that exploitation should be ongoing; if this is not the case, then justification has to be presented to the MEM and an extension of 6 years may be conferred (Henkle, 2014). The work program budget and expenditure defined in the “objective based criteria” for Macusani Yellowcake was approximately US$3.8 m against a budget of US$5 m.

4.1.6 Mining Concession Description

The Mineral Resources in this report fall within four (4) mining concessions, as shown in Figure 4-2 and described in Section 4.1.7. Macusani Yellowcake is 100% controlled and 99.5% owned by American Lithium.

On February 20, 2019, INGEMMET issued Resolution No. 0464-2019-INGEMMET/PD (the “Resolution”) declaring the expiration of the Ocacasa 4 concession, among others, citing the late payment of annual concession fees. The affected concessions are shown in Figure 4-, and it is noted that the Falchani concession does not form part of the Resolution. The Resolution was upheld by MINEM in July 2019, through Resolution No. 363-2019-MINEM/CM (together with the Resolution, the “Admin Resolutions”).

As the expiration of Ocacasa 4 was not issued through a court of law, Administrative Acts may be declared invalid within 2 years of the original issuance, through a legal process. In October 2019, the court in Peru admitted the “Demanda Contencioso Administrativa” (the “Contentious-Administrative Filing”) submitted by Macusani, in adherence with the prescribed deadline (3 months) to commence the judicial process requesting annulment of the Admin Resolutions that cancelled the concessions and seeks to restore their validity and Macusani´s legal title to the Concessions.

As reported by American Lithium in November 2019, Macusani has been granted a “Medidas Cautelares”, or “Precautionary Measure” with respect to 17 of these 32 concessions. The Precautionary Measure provides for:

- Temporary suspension of the effects of the Resolution declared by INGEMMET
- Temporary suspension of the effects of the resolutions issued by MINEM which confirmed the resolution issued by INGEMMET
- Temporary suspension of the effects of the Presidential Resolution W/N issued by INGEMMET. dated October 3rd, 2018, that declared inadmissible the accreditation of the payments for the 32 mining concessions, and
- Temporary restoration of the validity and ownership of the 32 mining concessions.

American Lithium has further reported that a Precautionary Measure was granted for the remaining 15 concessions, including Ocacasa 4, on March 2, 2021. The Contentious-Administrative proceedings potentially has three phases and could last for between 36 and 78 months. A total of 6 judicial rulings on the 32 concessions have been decided in Plateau’s favor, and American Lithium continues pursuing both judicial and administrative remedies. If Plateau does not obtain a successful resolution to these proceedings, Macusani’s title to the Ocacasa 4 concession could be revoked and Plateau would not be able to proceed with the Base Case.

Table 4.1 Falchani Mineral Resource Mining Concessions

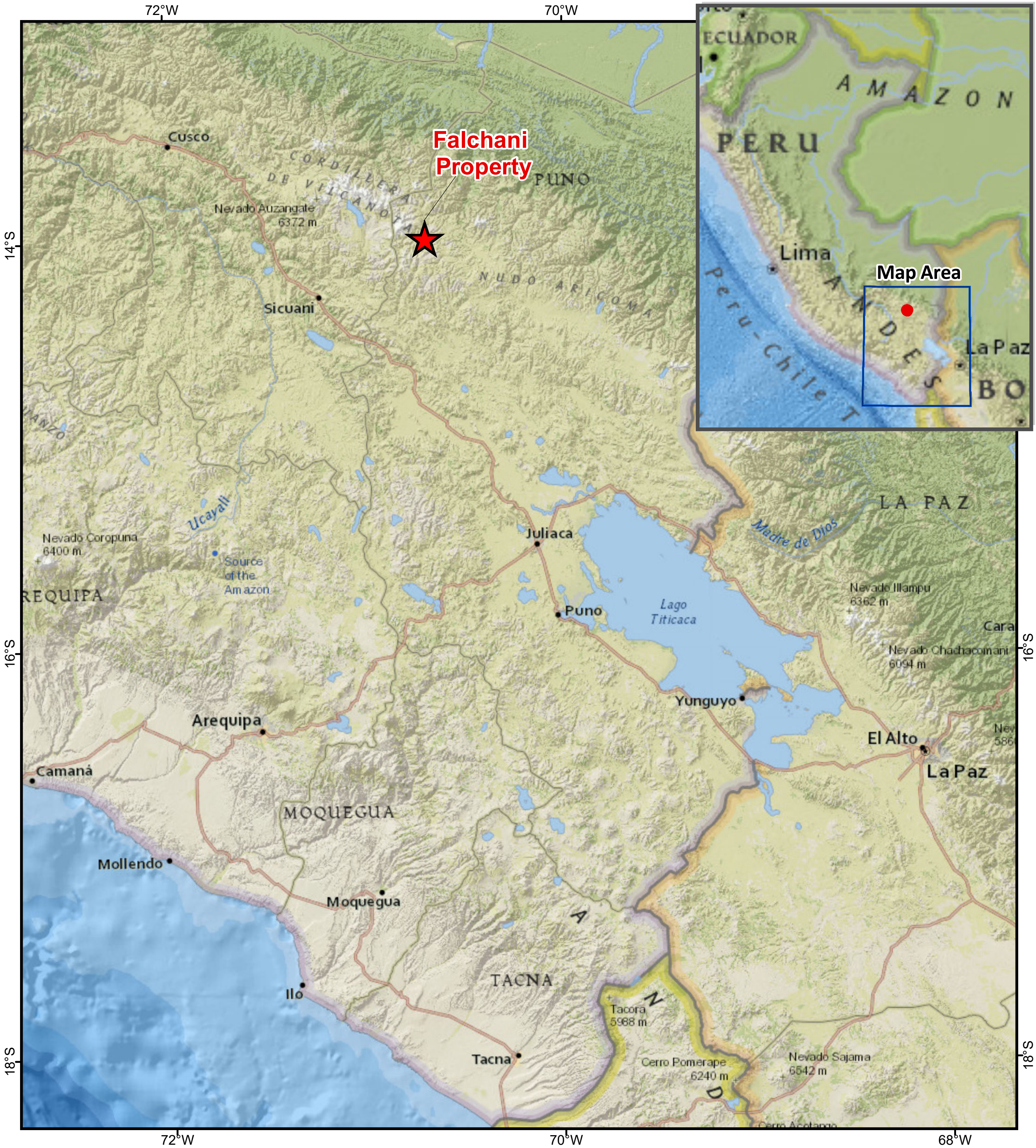
Concession Number	Owner/ Title	Date	Area (Ha)
010320205	MACUSANI YELLOWCAKE S.A.C.	2005-10-13	700
010076505	MACUSANI YELLOWCAKE S.A.C.	2005-03-28	500
010078105	MACUSANI YELLOWCAKE S.A.C.	2005-03-29	600
010215005	MACUSANI YELLOWCAKE S.A.C.	2005-07-11	1,000

4.1.7 Conclusions and Limitations

The parts of the Falchani Project which fall within the Falchani concession lie within a valid and secure mining concession. There have been changes to the mineral tenure circumstances of Ocacasa 4 when compared to that reported in the 2019 Technical Report. These changes have required the QP to consider if the reporting of Mineral Resource estimates within the Ocacasa 4 concession remains appropriate.

The effect of the Precautionary Measure is that Macusani maintains the validity and ownership of 17 of the 32 mining concessions as they were prior to the issuance of the INGEMMET resolutions, until all administrative and judicial remedies have been exhausted. An identical Precautionary Measure was granted for the remaining 15 concessions, including Ocacasa 4, on March 2, 2021. Furthermore, American Lithium maintains that the concession payments were valid, on time, in accordance with the “General Mining Law” and that there is a reasonable prospect for a permanent resolution, either through judicial or administrative processes. Most recently, a three-judge tribunal of Peru’s Superior Court SALA 4 specialized in administration disputes has unanimously upheld the ruling of the lower court judge from Court SALA 6 from November 2, 2021, in favor of Macusani Yellowcake in relation to title over 32 disputed concessions out of 172 owned by Macusani Yellowcake. The Court ruling, consistent with prior legal proceedings, clearly establishes that Macusani is the rightful owner of these concessions and highlights that the action launched by INGEMMET and MINEM in October 2018 was baseless and unsubstantiated. INGEMMET and MINEM have one final opportunity to petition the Supreme Court of Peru to consider the tribunal’s ruling based on legal arguments, which have been exhausted. American Lithium believes the Supreme Court will not accept any petition of the lower courts’ rulings. American Lithium, and its subsidiaries, have a demonstrated track record of managing the mineral tenure for a number of projects in Peru over several years. On this basis, the QP considers it reasonable to still report the estimates within Ocacasa 4 as Mineral Resources.

Stantec has restricted its review of the Mining Concession held by Macusani Yellowcake to checking the individual license boundaries on plans against those depicted on the mining concession outputs from the MEM. No legal reviews of the validity of the process Macusani Yellowcake went through to obtain the mining concessions have been undertaken, nor has an attempt been made to understand the various company structures and ownerships prior to transfer to Macusani Yellowcake.



Legend

★ Falchani Lithium Concessions Location

N

0 30 60
Kilometers

Scale 1:3,000,000
(At original document size of 8.5x11)

Stantec

AMERICAN LITHIUM

TECHNICAL REPORT FALCHANI PROPERTY

General Location Map

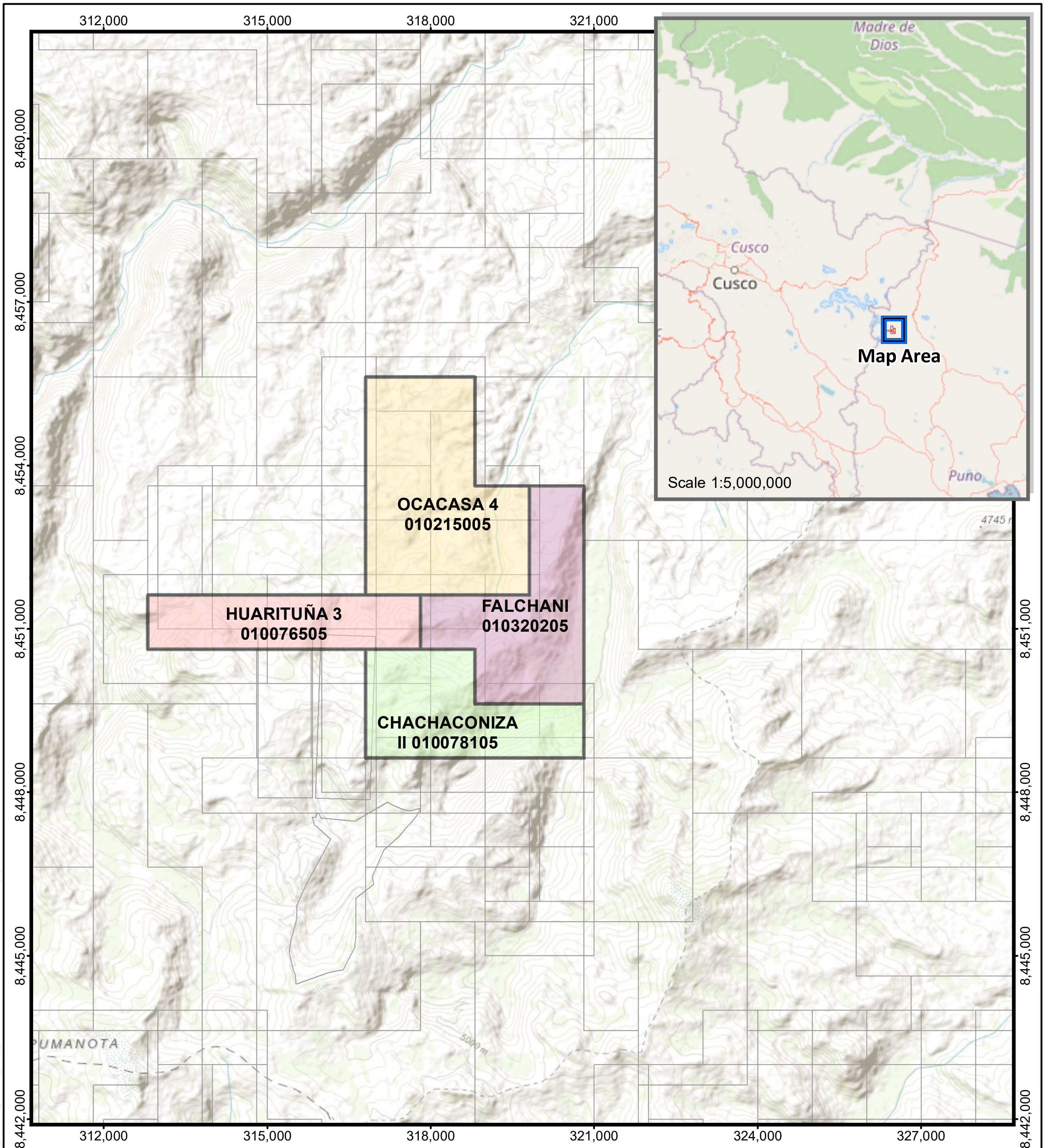
Figure 4-1

DRAWN BY: M.B. CHK'D BY: M.K. DATE: 23/ 12/ 14	Project Location: Puno District, Peru Client: American Lithium Corp. Project: 210223585

Notes

1. Coordinate System: WGS 1984 Web Mercator Auxiliary Sphere
2. Data Source: basemap - Sources: Esri, HERE, Garmin, Intermap, increment P Corp., GEBCO, USGS, FAO, NPS, NRCAN, GeoBase, IGN,

U:\210223585\4. Technical Report\Figures\MXD\Fig_4_1_General_Loc_Map_Dec12.mxd Revised: 2023-12-14 By: jkester



Concessions:

- CHACHACONIZA II
- FALCHANI
- HUARITUÑA 3
- OCACASA 4
- Other Concessions

Notes

1. Coordinate System: WGS 1984 Web Mercator Auxiliary Sphere
2. Data Source: Concessions: Geocatmin (ingemmet.gob.pe) Instituto Geologico, Minero y Metalurgico
basemap - © OpenStreetMap (and) contributors, CC-BY-SA
Sources: Esri, HERE, Garmin, Intermap, increment P Corp., GEBCO, USGS, FAO, NPS, NRCAN, GeoBase, IGN, Kadaster NL, Ordnance Survey,

Stantec AMERICAN LITHIUM

TECHNICAL REPORT FALCHANI PROPERTY

Mineral Tenure Map

Figure 4-2

DRAWN BY: M.B.
CHK'D BY: M.K.
DATE: 23/ 12/ 13

Project Location: Puno District, Peru
Client: American Lithium Corp.
Project: 210223585

U:\210223585\4. Technical Report\Figures\MXD\Fig_4_2_Mineral_Tenure_Map_Dec12.mxd Revised: 2023-12-13 By: jkester

5.0 ACCESSIBILITY, CLIMATE, LOCAL RESOURCES, INFRASTRUCTURE AND PHYSIOGRAPHY

5.1 Access to Site

The MPA is located approximately 650 km east south-east of Lima and about 220 km by road from Juliaca to the south. The nearest towns to the MPA are Macusani (25 km to the south-east) and Corani (14 km to the north-west).

The Interoceanica Highway (IH) is a system of tarred/sealed roads that link the ports of Materani, Molendo and Ilo on the west coast of Peru over the Andes Mountains to the west side of Brazil. The IH passes within 10 km to 15 km to the east of the MPA. Two unpaved roads connect the Project to the IH and other unpaved roads, generally in good condition, connect the various sites within the MPA to one another. These roads are accessible during the dry season in two-wheel drive vehicles and during the wet season in four-wheel drive vehicles.

The closest airport to the MPA is located at Juliaca. The facility is in good condition and services daily flights from Lima and Cusco.

5.2 Access to Land

The issue of land tenure is of increasing significance in Peru, particularly as the national cadastral system for agricultural land ownership is not always accurate due to many rights over private land not being registered. Peruvian law does not vest surface rights with mineral rights and any proposed development requires the developer to purchase the surface rights or negotiate an appropriate access agreement with the surface rights owners to have access to the property.

At present the company has working agreements ("convenios") with the following communities within the MPA: Chaccaconiza, Isivilla, an independent Cooperative (Imagina), Quelccaya and various independent small land holders. The working agreement with the community of Quelccaya is valid until July 2020. Until sanctioned otherwise, the agreement with the Cooperative and the small land holders is open ended and based on the progress achieved by exploration. The agreement with the communities of Chaccaconiza and Isivilla have expired and are being renegotiated. Short-term agreements and subsequent renewals are the model under which Plateau has been working with its host communities for the past 15 years. The Company is in constant dialogue with all of its host communities in the MPA as part of its continuity of community relations programs and does not foresee any issues with subsequent renewals when the time comes.

5.3 Climate

The climate on the Macusani Plateau is characterized by two distinct seasons – the wet season (which starts in September but peaks from January to April) and the dry season (May to September). The rainy season is controlled by tropical air-masses and the dry winters by subtropical high pressure.

While the exposed eastern slopes of the Andes receive more than 2,500 mm of rain annually, the average rainfall for the Carabaya Province varies between 600 mm to 1,000 mm. The period between

May and August is characterized by very dry conditions and cold nights. Significant electrical storm activity is common in the wet season and moisture falls in the form of rain, hail and, occasionally snow.

Temperatures range from 19°C in November to -10°C in July. While temperatures are mild, high ultraviolet readings are common in the middle of the day. These climatic conditions and the altitude dictate that the area is vegetated by coarse scrub and grasses.

5.4 Local Resources

Peru has a robust mining economy with many operations exploiting copper, gold, iron ore, lead, molybdenum, rhenium, silver, tin and zinc, as well as industrial minerals and mineral fuels (coal, natural gas and crude oil). Founded on this mining culture, it is thus reasonable to assume that a workforce consisting of skilled and semi-skilled people could be sourced for the Project.

5.5 Infrastructure

The San Gaban II hydro generation station is approximately 40 kms (88 km via the IH) to the north of the MPA and high voltage power lines run adjacent to the MPA. In order for a grid connection to be made an extension of the power line will be required to reach the project site and any connection will be subject to negotiation with the supply authority. These matters will need to be taken into account as the project progresses.

At this time, the supply of water is derived from local river courses. In its 2014 Preliminary Economic Assessment (PEA) for Plateau Energy Metals' uranium projects, GBM Mining Engineering Consultants Limited (GBM) was of the view that the area has access to sufficient water resources for the purposes of mining operations (Short et al, 2014).

5.6 Physiography

The Macusani Plateau is part of the relatively flat Altiplano of the Eastern Cordillera of the Andes Mountain Range, except where incised narrow canyons exist with a relief of up to 250 m. The canyon walls are steep with slope angles up to 60°, with some sections being vertical. The elevation of the Plateau ranges between 4,330 m and 4,580 m above mean sea level.

6.0 HISTORY

The Falchani Property is situated within what is largely known as the Macusani Project Area (MPA) (Riordan et al., 2020). Historical ownership and exploration are described below. There is no record of mining activity within or adjacent to the Falchani Property.

6.1 Ownership History

6.1.1 Uranium price fluctuations

To a large extent, the cyclical nature of uranium exploration on the Macusani Plateau has been driven by the fluctuating price of the commodity since the mid-1980s. During the collapse of prices in the 1980s and in the wake of the Three Mile Island accident, there was little incentive for exploration and mining companies to explore for uranium. However, the uranium prices experienced a spectacular rise between 2001 and 2008 during which time junior mining companies mobilized their campaigns by staking properties over prospective ground. Amongst these early explorers was Vena Resources Inc (Vena) who acquired seven concessions in the Macusani Plateau as well as additional concessions elsewhere in Peru (Henkle, 2011). In 2006, Vena commenced scintillometer prospecting, radon, and surface outcrop mapping over various IPEN uranium showings.

Global interest in uranium declined in the wake of the Global Economic Crisis of 2008/2009 and, more so, in the aftermath of the Fukushima Dailchi nuclear disaster in March 2011.

6.1.2 Macusani Yellowcake

Macusani Yellowcake Inc. was a Canadian uranium exploration and development company focused on the exploration of its properties on the Macusani Plateau. The Company was incorporated in November 2006 and was created through the amalgamation of privately held Macusani Yellowcake Inc. and Silver Net Equities Group, a TSX Venture Capital pool company. The Company owns a 99.5% interest in the Peruvian concessions through Global Gold S.A.C. Macusani has been actively exploring in the Macusani area since 2007.

6.1.3 The Cameco-Vena Joint Venture

In 2007, Cameco Corporation (and its wholly owned subsidiary Cameco Global Exploration Limited (Cameco)) entered into a joint venture with Vena with the objective of jointly exploring for uranium in Peru. Minergia S.A.C was formed as the joint venture vehicle, with Cameco providing the funding and Vena undertaking the exploration management. The ownership was founded on 50% shareholding in favor of each party. The combined portfolio covered an area of 14,700 ha. The details of this transaction are summarized by Henkle (2014).

6.1.4 Azincourt buys Minergia

During November 2013, Azincourt Uranium announced that it had entered into a definitive share-purchase agreement with joint-venture partners Cameco and Vena to acquire full ownership of the resource-stage Macusani and other exploration projects. In January 2014, Azincourt announced that the acquisition of Minergia S.A.C. had been completed.

6.1.5 Macusani purchases Minergia

Macusani Yellowcake Inc. and Azincourt Uranium Inc. announced in September 2014 that they had completed the acquisition by Macusani of Azincourt's adjacent uranium properties located on the Macusani Plateau. Under the terms of the transaction, Macusani acquired 100% of Azincourt's Peruvian subsidiary, Minergia S.A.C. Arising from this transaction, there was a consolidation of mining concessions within the MPA.

6.1.6 Macusani changes name to Plateau Uranium Inc.

On April 30, 2015, Macusani Yellowcake Inc. changed its name to Plateau Uranium Inc. Young (2015) reported consolidated uranium Mineral Resources estimates for six mineral Complexes that fell under the Plateau Uranium umbrella. In May 2016, the Mineral Resources for two of the Complexes (Kihitian and Isivilla) were updated to include lithium and potassium (Stantec, 2016).

6.1.7 Plateau Uranium Inc. changes name to Plateau Energy Metals Inc.

In March 2018, Plateau Uranium Inc. changed its name to Plateau Energy Metals.

6.1.8 American Lithium Corp. Acquires Plateau Energy Metals

In April 2021, ALC, a Vancouver based TSX Venture listed company with lithium assets in the USA, acquired Plateau Energy Metals Inc.

6.2 Previous Regional Exploration

6.2.1 Instituto Peruano de Energia Nuclear

In 1975, the uranium and nuclear activities in Peru were placed under the control of the Instituto Peruano de Energia Nuclear (IPEN). A five-year exploration plan (1976-1981) was initiated with the aim of identifying and developing resources in the country. The Macusani East area was the most studied area in southern Peru by IPEN. After IPEN discovered the first 60 uranium showings in 1978, systematic radiometric prospecting and trenching were carried out over an area of approximately 600km2, culminating in the discovery of numerous additional uranium showings (Young, 2013).

6.2.2 UNDP/IAEA

From mid-1977, a long-term United Nation Development Programme/International Atomic Energy Agency (UNDP/IAEA) project was initiated consisting of regional reconnaissance over selected areas. The results of most of the work were negative except for those from a car-borne radiometric survey of the Puno Basin where a significant discovery was made near Macusani in the southern Cordillera Oriental, north of Lake Titicaca. Anomalies were found in the volcanic and interbedded sediments of the Upper Tertiary age Macusani volcanics and the Permian age Mitu Group (Young, 2013).

In the same exploration phase, additional anomalies were located to the SSW near Santa Rosa in Tertiary age porphyritic rhyolites and andesites.

These (and other discoveries in the Lake Titicaca region) concentrated the exploration in the area. A helicopter spectrometric survey of selected areas was completed in 1980 in Muñani, Lagunaillas and Rio Blanca as an IAEA/IPEN Project and a fixed wing survey was completed in an adjacent area by IPEN. Numerous uranium anomalies were discovered.

In 1984, the Organization for Economic Co-operation and Development’s Nuclear Energy Agency and the IAEA sponsored an International Uranium Resources Evaluation Project Mission (IUREP, 1984) to Peru. The mission estimated that the Speculative Resources of the country fell within the range of 6,000 to 11,000 t of uranium.

6.3 Property Exploration

Two diamond drilling campaigns were undertaken at the Falchani Project. The first campaign was initiated in 2017, and the second program continued to the end of December 2018. In total, 51 drillholes were drilled by Macusani Yellowcake, from 15 drilling platforms. The total drilled length was 14,816 m with a total of 9,102 samples, excluding QAQC control samples. Due to drill access limitations, the drilling was mainly undertaken from a series of platforms, with anything from two to nine drillholes being drilled radially from each platform (Nupen, 2019, Riordan et al., 2020).

For the 2017-2018 drilling programs, sample preparation was done on site at a mobile field station which was located close to the drill rigs and periodically re-located. Once logged and photographed, the entire core identified for sampling was placed into a sampling bag. The pre-marked aluminum tag was stapled to the sample bag. Sample depths were recorded together with a basic geological description on a sampling reconciliation log which was later entered digitally. Quality control samples in the form of standards were inserted at the permanent field office located in the village of Isivilla. These standards were prepared by Macusani Yellowcake and certified by ALEPH Group & Asociados S.A.C. Metrologia de las Radiaciones (Radioactivity Measuring Techniques) by having check analyses of the standards completed at CERTIMIN SA (CERTIMIN), which was previously known as the Centro de Investigacion Minera y Metalurgica (CIMM), laboratory in Lima (Nupen, 2019, Riordan et al., 2020).

Plateau Energy Metals conducted a surface sampling program in April 2018. A total of 181 samples were collected and analyzed for lithium.

6.4 Historical Estimates

Two prior estimates have been documented for the Falchani Property. In 2018, by The Mineral Corporation (TMC) (Nupen, 2018) for Plateau Energy Metals Inc. In 2019, TMC updated their estimates (Nupen, 2019) for Plateau Energy Metals Inc. Table 6.1 shows the 2018 historical estimates and Table 6.2 shows the 2019 historical estimates.

Table 6.1 2018 Historical Estimates (Nupen, 2018)

Category	Metric Tonnes (Mt)	Density	Li (ppm)	Li_2O	Li_2O_3	Contained Li_2CO_3 (Mt)
Indicated	40.58	2.4	3,104	0.67	1.65	0.67
Inferred	121.7	2.4	2,724	0.59	1.45	1.76

Li (ppm) grade cut-off of 1,000 Li (ppm) applied

Li Conversion Factors as follows: Li:Li2O=2.153; Li:Li2CO3=5.323; Li2O:Li2CO3=2.473

Table 6.2 2019 Historical Estimates (Nupen, 2019)

Category	Metric Tonnes (Mt)	Density	Li (ppm)	Li_2O	Li_2O_3	Contained Li_2CO_3 (Mt)
Indicated	60.92	2.4	2954	0.64	1.57	0.96
Inferred	260.07	2.4	2706	0.58	1.44	3.75

Li (ppm) grade cut-off of 1,000 Li (ppm) applied

Li Conversion Factors as follows: Li:Li2O=2.153; Li:Li2CO3=5.323; Li2O:Li2CO3=2.473

To generate the estimates presented in Table 6.1 and Table 6.2, TMC modelled the deposit using the drillhole data contained in Plateau Energy Metals Microsoft Access database, Google Earth™ generated topography and Datamine Studio™ Software. For the estimates ordinary kriging was undertaken for lithium grades, into a block model using estimation parameters supported by semi-variograms generated from drillhole grade data. The QP is of the opinion that TMC's approach in generating the historic estimates shown in Table 6.1 and Table 6.2 follows general best practice. However, since 2019 additional exploration drilling has been completed Property and lithium market price projects have changed. These are material to the Project as demonstrated in Section 14, Mineral Resource Estimates.

The Author has not done sufficient work to classify the historical estimates shown in Table 6.1 and Table 6.2 as current mineral resources and the issuer is not treating the historical estimates as current mineral resources reserves.

6.5 Mining Studies

In 2020, a Preliminary Economic Assessment (PEA) was completed by DRA Pacific (Riordan et al., 2020) for Plateau Energy Metals Inc. A preliminary open pit Whittle optimization and conceptual production schedules was completed to support the PEA Study. Open pit mining was planned to use conventional truck and shovel mining methods with drill and blasting to break the rock mass into manageable particle sizes. The Base Case open pit design contained 145 Mt (LoM) of mineralized material with an average Li grade of 3,338 ppm. The stripping ratio is low at 0.97:1, waste t to mineralization t, and the total waste mined is 142 Mt. The annual mining schedule was developed based on maximum ramped up mill feed of 6 Mtpa, (≈16,500 tpd). The life of the mine of this Project was approximately 33 years producing a battery grade Li_2CO_3 product using sulfuric acid leaching and purification processes for an overall recovery of 80% from mineralized material.

The 2020 PEA was preliminary in nature and included Inferred historic estimates (Nupen, 2019) that are considered too speculative geologically to have the economic considerations applied to them. There have been no prefeasibility study or feasibility studies completed for the Falchani project. Accordingly, at the present level of development, there are no Mineral Reserve estimates for the Falchani project.

6.6 Mineral Processing and Metallurgical Testing

Past mineral processing and metallurgical testing is well document by Riordan et al. (2020). A substantial body of metallurgical test work has been carried out on the Falchani lithium-bearing tuff material. The test work referenced was carried out by Tecmmine in Peru (prior to 2018) and test work carried out in 2018 and 2019 was completed by Techmine and ANSTO Minerals in Australia. Both the Tecmmine and

ANSTO test work was carried out on the lithium rich tuff obtained from a trench on site. The test work supported a number of technically viable process flowsheet routes, namely: hydrochloric acid leaching, salt roast, sulfation baking, pressure leaching, purification processes.

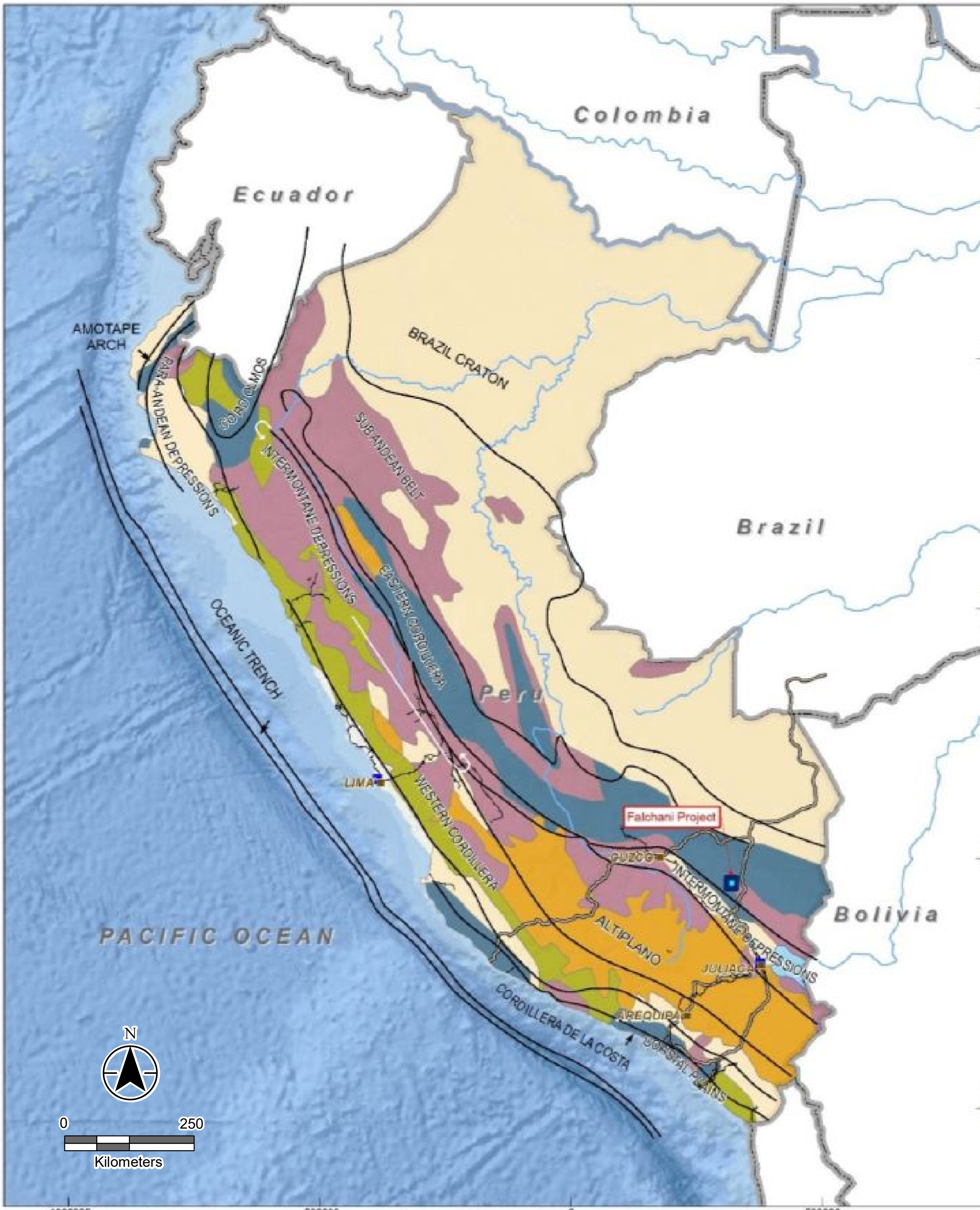
For the 2020 PEA (see section 6.7), a flowsheet using atmospheric leaching in a sulfuric acid medium, followed by downstream purification processes, was selected for the production of battery grade lithium carbonate. The early focus of the acid leach process was on maximizing the extraction of lithium using aggressive leach conditions and the later work focused on optimizing the leach parameters and confirming inputs to the process design criteria. The process flow sheet was developed by DRA, working with ANSTO Minerals (ANSTO) and with input from M.Plan International Limited.

7.0 GEOLOGIC SETTING AND MINERALIZATION

The American Lithium concessions are located in the Carabaya Province, Puno Department of south-eastern Peru in the Andes. The Andes are a geographical feature formed by active mountain building processes driven by plate tectonics.

7.1 Regional Geology

A common geological feature of orogenic belts is that they are usually structurally and stratigraphically complex. In the Puno region of Peru, mainly Paleozoic sediments (520-250 Ma old) that were formed on the western Brazilian Craton have been highly deformed by thrusting and folding due to the westward movement of the South American tectonic plate (Brazilian Craton) over-riding the Pacific tectonic plate (Nazca Plate) along the western margin of the Americas over the last ±150 Ma. This occurred during the Pangean breakup (~ 200 Ma) which coincided with rifting between the Eurasian and African plates relative to the Americas plates. The main regional geological units and physiographic features are shown in Figure 7-1, Regional Geology Map. The Oceanic Trench as shown in Figure 7-1 forms the western margin of the South American plate.



LEGEND

- City
- Airport
- Interoceanico Highway
- Railway
- Major River
- Lake Titicaca
- International Boundary
- Tectonostructural Domains of Peru (after Banavides-Cáceres, 1999)

Geology

- Tertiary/Quaternary Sediments
- Tertiary/Quaternary Volcanics
- Batholitic Rocks
- Mesozoic Rocks
- Paleozoic/Precambrian Rocks

Notes
1. Coordinate System: WGS 1984 UTM Zone 19S
2. Data Source: Nupen, 2016

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Regional Geology Map

Figure 7-1

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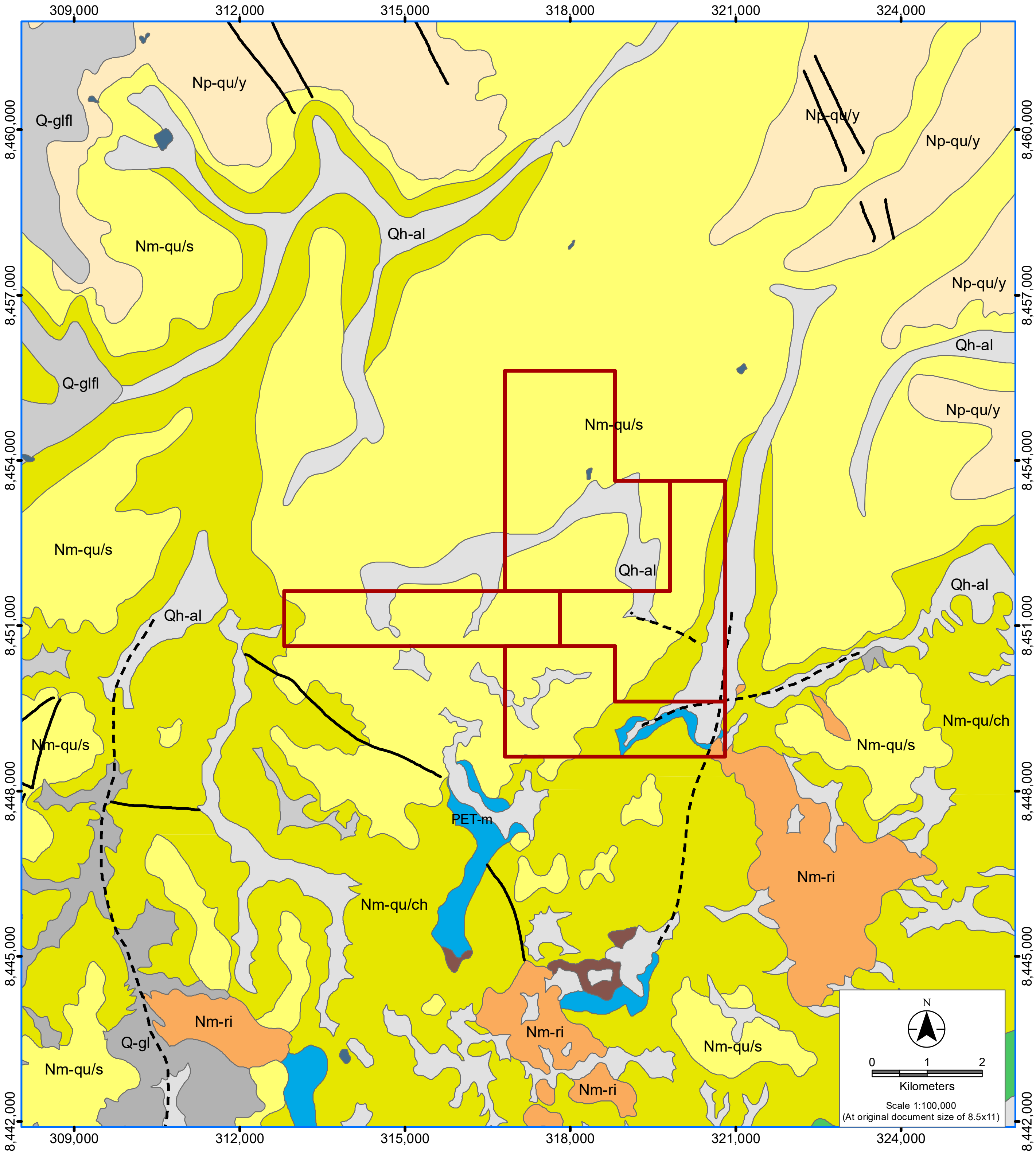
The tectonic history has led to the older sediments being bounded by westward dipping thrusts, intense folding and intrusions of dykes, batholiths and being affected by volcanic activity at various times (Henkle, 2014). The Andes represents a large anticlinorium complicated by a series of faults and intrusions, with the flanks of this superstructure made up of the coastal Mesozoic and eastern Paleozoic belts. The Andes represent the Late Tertiary and Quaternary rejuvenation by block faulting of an eroded, early Tertiary folded mountain range which occupied the axis of Paleozoic and Mesozoic geosynclines. Topographically the mountains consist of a central dissected plateau, the Intermontane Depressions and Altiplano enclosed by narrow ranges, the Western Cordillera and the Eastern Cordillera as depicted in Figure 7-1.

7.2 Local Geology

7.2.1 Mineral Occurrences

Lithium mineralization at Falchani are hosted in an ash-flow tuff named Lithium Rich Tuff (LRT) and volcanoclastic breccias (Upper and Lower Breccia) that bound the LRT. Lithium mineralization is also observed in the basal Coarse Felsic Intrusion which is interpreted to be a stratiform felsic intrusion underlying the above lithium host rocks. These lithologic units are interpreted to be a part of the Sapanuta Member as shown in Figure 7-2, Local Geology Map. North-South (N-S), northwest (NW), and southwest (SW) trending faults are also interpreted on Figure 7-2 and discussed further below.



Legend

- Falchani Property Concessions
- Normal Fault
- Inferred Fault

Geologic Units

- Qh-al; Alluvial Deposits
- Q-glfl; Glacial Fluvial Deposits
- Q-gl; Glacial Deposits
- Np-qu/y; Yapamayo Member: Vitric Tuff
- Nm-qu/s; Sapanuta Member: Rhyolitic Tuff
- Nm-qu/ch; Chacacuniza Member: Tuff
- Nm-ni-ri; Rhiolytic Porphyry
- Nm-ri; Rhyolite
- Lagoon Deposits
- PET-m; Mitu Group: Sandstones, conglomerates, breccias, lavas and ash tuffs
- Cm-a; Group Ambo: Sandstones, quartzose, siltstones, and shales with organic matter content.

Notes

1. Coordinate System: WGS 1984 UTM Zone 19S
2. Data Source: Geology: https://ingemmet-peru.maps.arcgis.com; Concessions: Geocatmin (ingemmet.gob.pe) Instituto Geologico, Minero y Metalurgico

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Local Geology Map

Figure 7-2

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DATE: 23/ 12/ 14

Project Location: Puno District, Peru
Client: American Lithium Corp.
Project: 210223585

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7.2.2 Structural Geology

Due to extensive pre-Andean orogenic deformation and active tectonic activity the structural geology of the Andes region is complex. The Falchani project is located within a structural deformation zone called the Macusani Structural Zone (MSZ) which is a sub-section of the Eastern Cordillera as shown in Figure 7-3, Macusani Structural Zone.

The MSZ is characterized by extensional structures that were active during Triassic rifting and later re-activated as compressional structures during Andean mountain building processes. Due to these pre-existing rift structures, the MSZ is dominated by N-S, northeast-southwest (NE-SW), and north-northwest-south-southeast (NNW-SSE) trending faults and folds (Perez, 2016). Much of the historic research on structural deformation near Falchani has focused on thick and thin-skinned tectonics affecting pre-Andean Palaeozoic rocks, and less on structural deformation affecting Cenozoic volcanic rocks. The MSZ is bounded to the south by the northwest trending re-activated Triassic San Anton normal-fault and to the north by the northwest trending Cenozoic Cordillera de Carabaya backthrust which has uplifted the MSZ as shown on Figure 7-3. Due to the active tectonic mountain building processes of the Andes, the MSZ has likely undergone more recent extension resulting in normal offset of the Cenozoic extrusion intrusive rocks that host the lithium mineralization at Falchani (Cheilletz A et al., 1992).

A detailed study of the structural geology affecting Cenozoic deposits in and around the Falchani area is warranted to better understand subsurface geology and mineralization. Figure 7-4, Fault Evidence and the Macusani Volcanic Field, shows potential fault traces as interpreted from imagery generated from the 2023 LiDAR survey.

As shown in Figure 7-4, there are N-S, NW, and SW trending topographic lows which are indicative of structural weakness. Also shown in Figure 7-4, are offset outcrop patterns that are present within the Falchani project area. The trends of the observed topographic lows bounded by steep topographic highs align with the well-studied structural trends observed in the MSZ.

Lithostratigraphy

Era	Period	AP/E. Cordillera		Subandean Zone	
Cenozoic	Pliocene/Quaternary	PQ	Plio./Quat.	PQ	Plio./Quat.
	Neogene	N-iv	Intrusive, Extrusive	PN-3	
		Nm-ti	Tinajani		
	Paleogene	PN-ca	Cayoni	P-2	
		P-pu	Puno Group	P-1	
		P-iv	Intrusive, Extrusive		
Mesozoic	Cretaceous (Upper)	KsP-au	Auzangate	Ks-v	Vivian
		Ks-vi	Viluyo	Ks-ch	Chonta
	Cretaceous (Lower)	Kis-mo	Moho Group	Ki-o	Oriente
		Ki-hn	Huancane		
	Jurassic	JsKi-mu	Muni		
		JK-iv	Intrusive, Extrusive		
Paleozoic	Permian	PsT-mi	Mitu Group		
		PsTi-gr	Granite-granodiorite		
		Pi-c	Copacobana		
	Carboniferous	Cs-t	Tarma		
		Ci-a	Ambo		
	Silurian/Devonian	SD-a	Annanea		
		SD-ch	Chagrapi		
	Ordovician	Os-sg, s	San Gaban/Sandia		
		O-ca, sj	Cajamarca/San Jose		
Pre-cambrian		Pe	Undifferentiated		

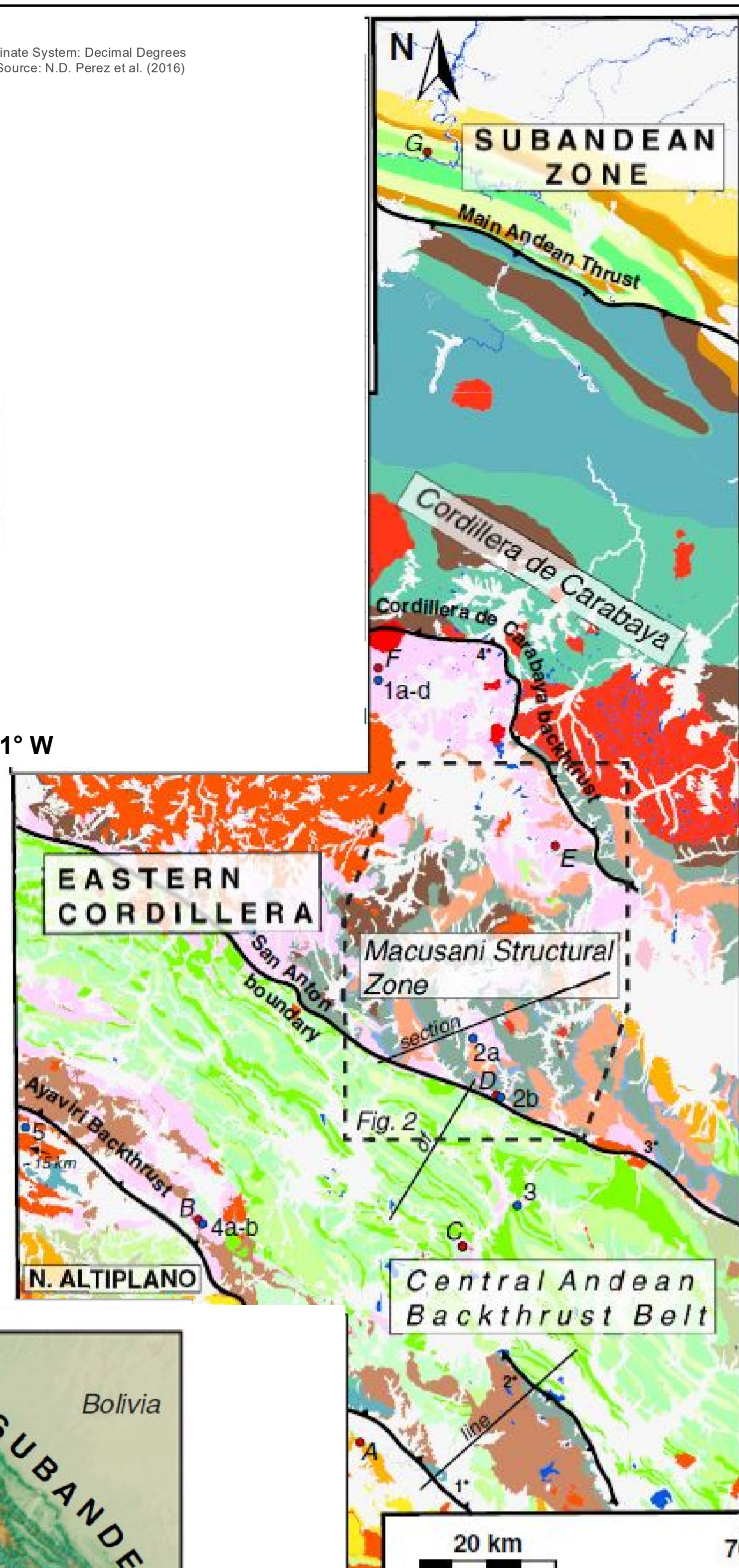
Water

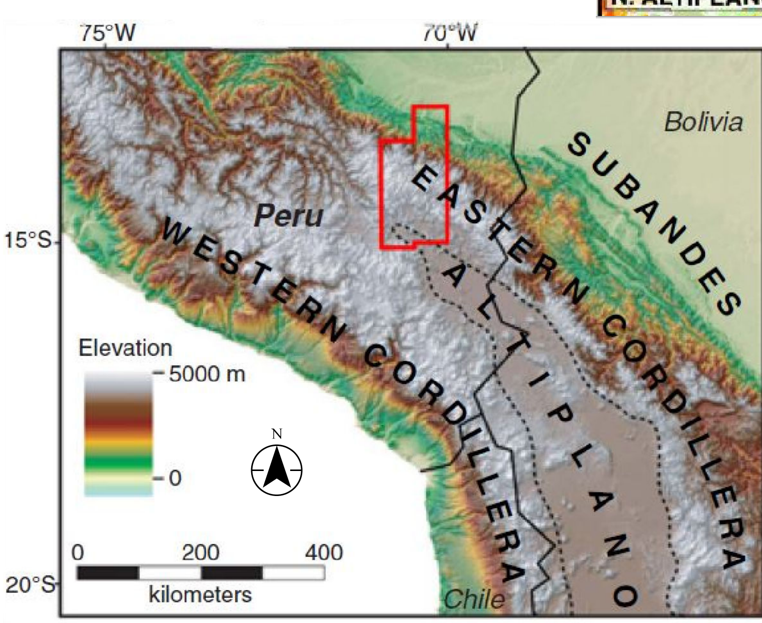
Major subcrop boundary 3*

Mitu Group U-Pb zircon samples • 1a-d

Stratigraphic column location • G

Notes
1. Coordinate System: Decimal Degrees
2. Data Source: N.D. Perez et al. (2016)





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Macusani Structural Zone

Figure 7-3

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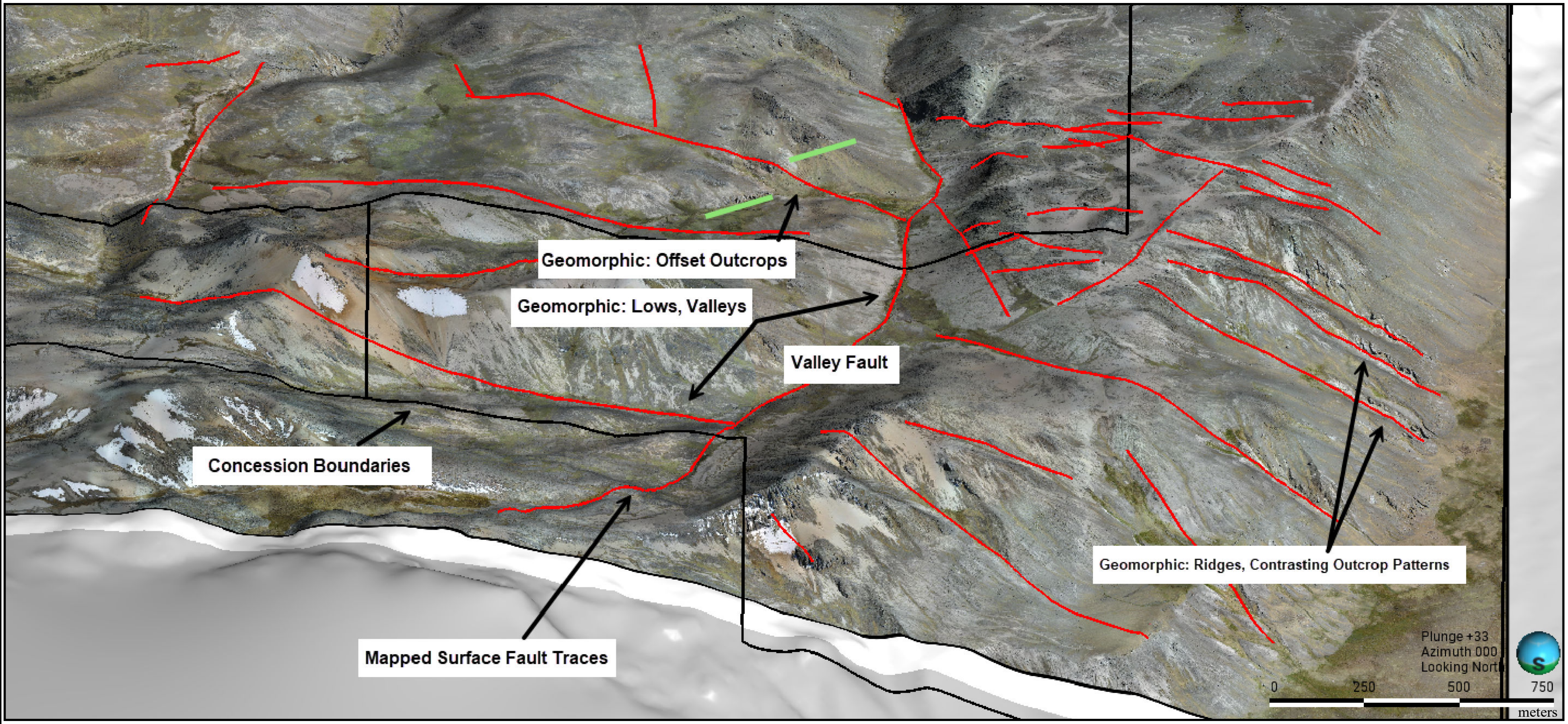
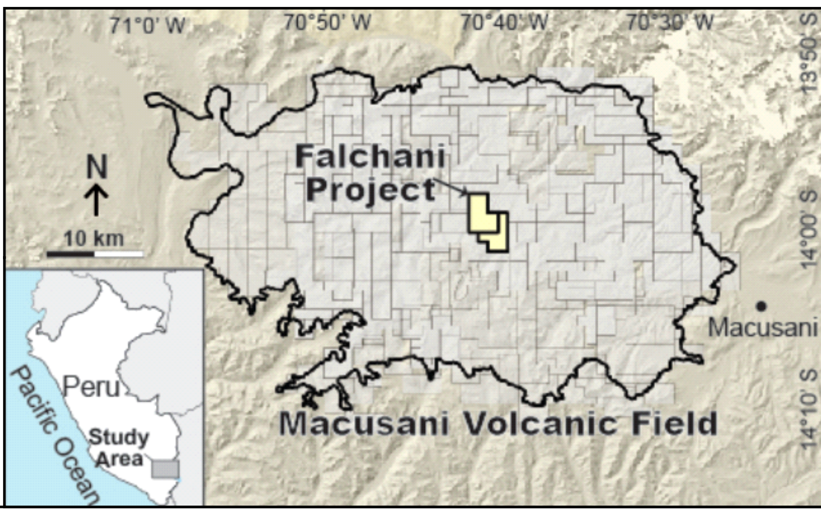


Fault Evidence in the Falchani Project
Oblique View, looking N



Location of the study area in SE Peru (inset) and of the Falchani Lithium Project concessions in the Macusani Volcanic Field

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Fault Evidence and the Macusani Volcanic Field

Figure 7-4

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DATE: 23/ 12/ 14

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Client: American Lithium Corp.
Project: 210223585

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7.3 Property Geology

Lithium mineralization within the Falchani Project is hosted in shallowly dipping acidic tuffs, with pyroclasts from sub-macroscopic to 60 mm in size. These volcanic rocks are contained within the Macusani Volcanic Field (MVF) shown in Figure 7-4 and described further by Torro et al. 2022. Primary minerals constituting the tuff are quartz, orthoclase, and plagioclase in a groundmass of amorphous glass. Crude bedding is evident in some outcrops and is based on strata containing larger and smaller pyroclasts. The petrography of the samples analysed by Thatcher (2011) indicate that the acidic volcanics (crystal lapilli tuffs) may contain varying rock type compositions ranging from rhyolite to dacite to latite which supports the likely presence of stratigraphic layering of the volcanic pile as noted in Section 7.2.1 and by Cheilletz et al (1992).

Limited mineralogical work has been undertaken by SGS Canada on samples from the Falchani Project, and the understanding of the stratigraphy has evolved through exploration mapping and drilling programs. In the immediate vicinity of the boreholes drilled at Falchani, the youngest rocks appear to be classified by Plateau Energy Metals as the Upper Rhyolite. The Upper Rhyolite forms prominent outcrops, demonstrates crude bedding, and is shallowly dipping to the north-northeast. Outcrops of the Upper Rhyolite demonstrate similar appearance to the acidic tuffs of the Yapamayo and Sapanuta Members of the Quenamari Formation, which host nearby uranium mineralization.

Below the Upper Rhyolite is the Upper Breccia, which separates the Upper Rhyolite from the Lithium Rich Tuff (LRT). The Upper Breccia is not well defined in outcrop but is very distinctive in core. Figure 7-5, Upper Breccia and LRT Contact in Core, shows the contact between the Upper Breccia and the LRT. The Upper Breccia contains angular clasts of volcanic material, in a very fine groundmass (Figure 7-5 - top). The LRT is a light grey to white, very fine-grained rock, with prominent layering (Figure 7-5 - bottom).

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Upper Breccia and LRT Contact in Core

Figure 7-5

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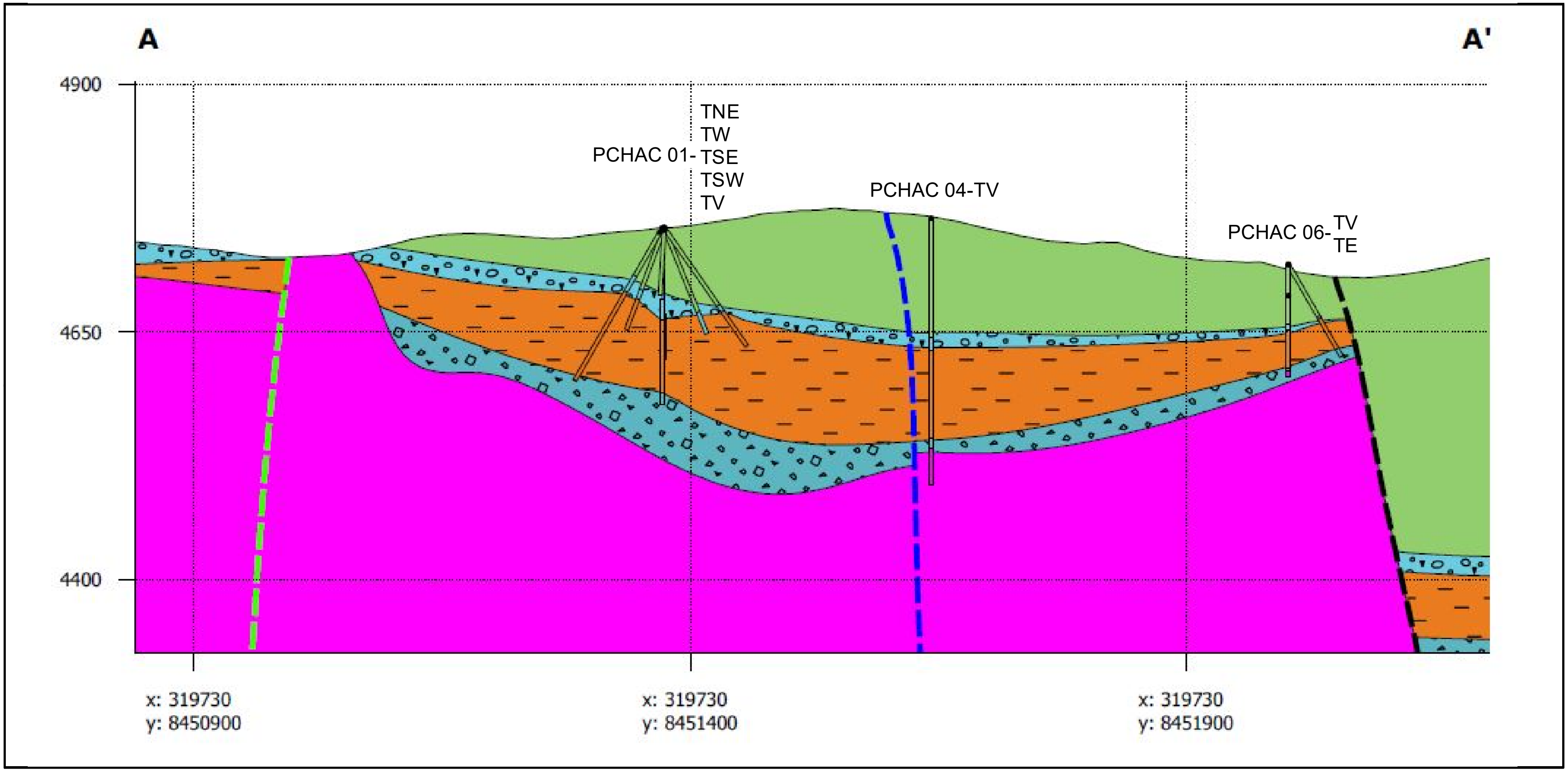
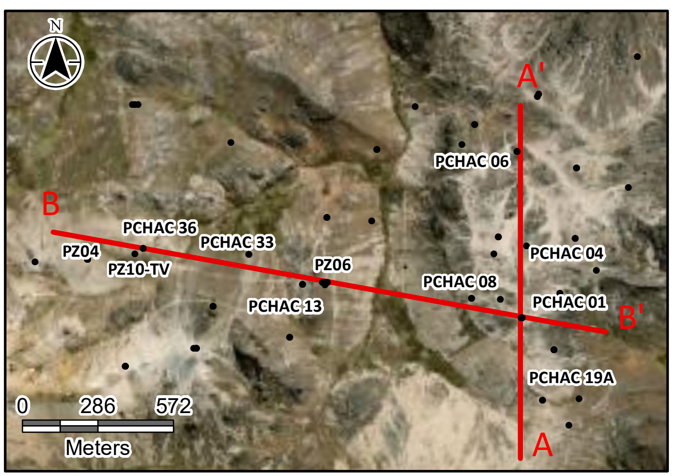
The contact between the LRT and the Lower Breccia is less marked than the Upper Breccia. The Lower Breccia has been identified in outcrop in the Tres Hermanas trenches and has been interpreted from drilling. Below the Lower Breccia is Coarse Felsic Intrusion (CFI), another lithium mineralized basement lithological unit.

The thickness of the Upper Breccia varies from 10 m to 20 m, while the thickness of the Lithium-rich Tuff varies in drilling from 50 m to 140 m. The Lower Breccia unit varies in thickness. Recent drilling further demonstrates that the Lower Breccia unit may reach thicknesses of up to 175 m and contains large (up to 20 m intercept lengths) blocks of Lithium-rich Tuff. The CFI below the Lower Breccia extends beyond the limits of the modelled resource and has been intersected by 28 drillholes with the max depth of 407 m in drillhole PZ01-TV3. The CFI is interpreted to have a higher density of 2.7 g/cm^3 in comparison to the upper mineralized zones. The density has been determined based on the similarity to that of analogous igneous intrusive rock types such as andesite and granite (www.geologyscience.com).

The lithologic units and structures described above are displayed in two (2) cross sections (A-A’ and B-B’) as shown in Figure 7-6, Geologic Cross Section A-A’ and Figure 7-7, Geologic Cross Section B-B’.





Lithologic Units

- Upper Rhyolite
- Upper Breccia
- Lithium Rich Tuff
- Lower Breccia
- Coarse Felsic Intrusion
- Drill Hole Collar
- Cross Section Line

Fault System

- NW1
- NW2
- NW3

0 125 250
Meters

Notes

1. Coordinate System: WGS 1984 UTM Zone 19S
2. Basemap Source: Esri, Maxar, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community

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Geologic Cross Section A-A'

Figure 7-6

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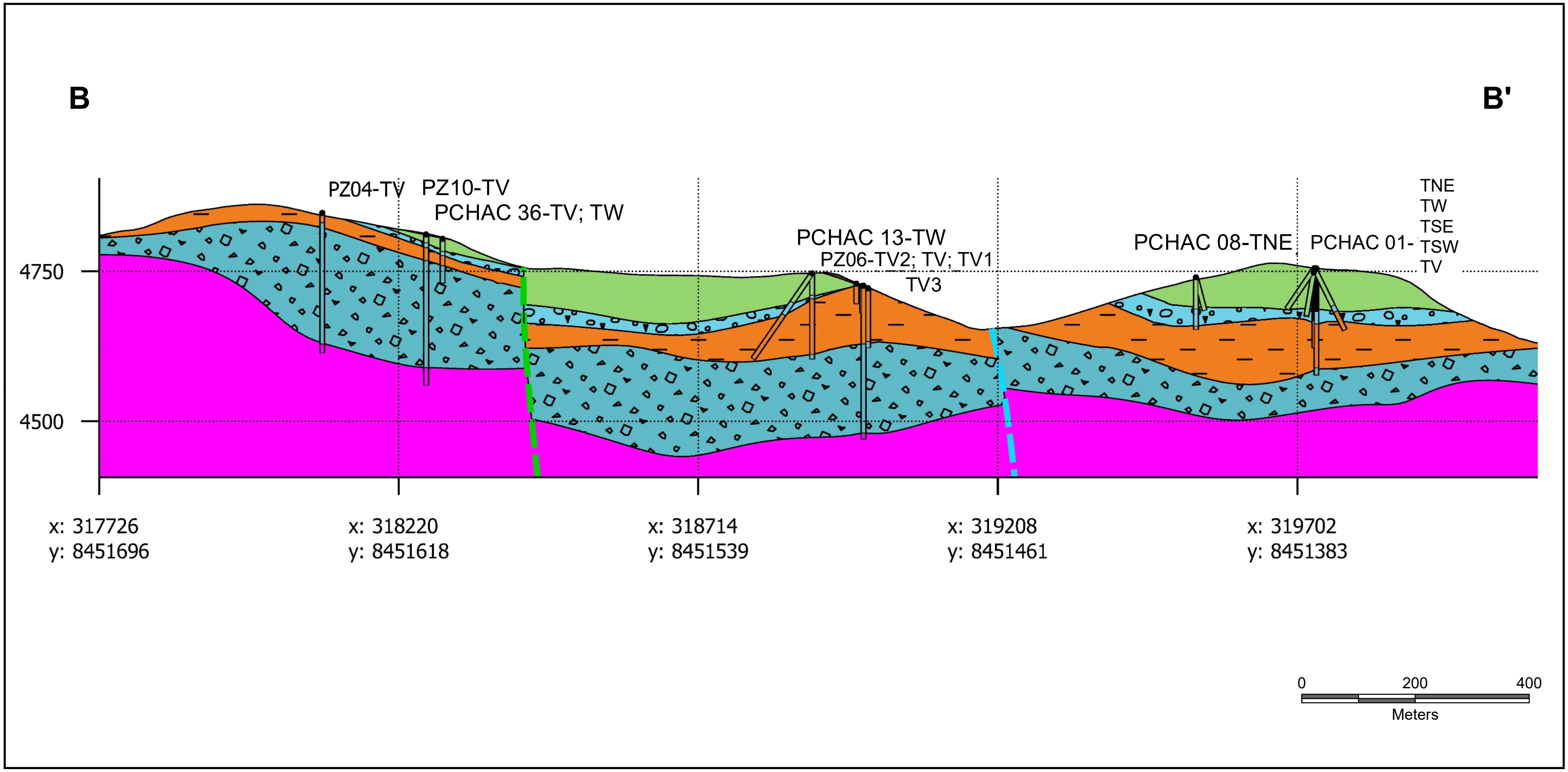

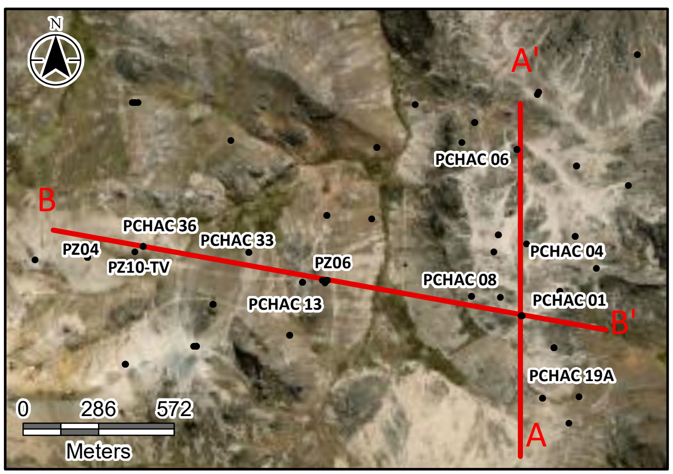

Lithologic Units

- Upper Rhyolite
- Upper Breccia
- Lithium Rich Tuff
- Lower Breccia
- Coarse Felsic Intrusion

Fault System

- NW5
- Valley Fault

- Drill Hole Collar
- Cross Section Line

Notes
1. Coordinate System: WGS 1984 UTM Zone 19S
2. Basemap Source: Esri, Maxar, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community

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Geologic Cross Section B-B'

Figure 7-7

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7.4 Mineralization

The general dimensions of the mineralized zone at Falchani covers an area approximately 3,300 m wide by 2,440 m long extending from outcrop to a maximum modelled depth of approximately 1000 m below surface. The mineralization is continuous from surface to depth. The highest and most consistent lithium grades occur in the Lithium Rich Tuff. The basement mineralized coarse felsic intrusion has a known depth of 400 m from drillhole intercepts, however the maximum thickness of the unit is still unknown.

8.0 DEPOSIT TYPES

Increased global demand for Battery Electric Vehicles (BEVs) and electronic devices requiring lithium-ion batteries has increased exploration efforts for discovering economic Li deposits. There are currently 124 known Li-bearing minerals, of which, nine (9) are economically important. The three (3) principal deposit types hosting economic quantities of Li are pegmatite deposits, volcanic clay deposits, and brine deposits (Bowell et al. 2020). Li bearing pegmatites occur globally and often contain other important rare metals (London 2008, Bradley et al. 2017). Li-bearing volcanic clay deposits are spatially related to rhyolitic volcanic rocks. Of the different type of volcanic clay deposits, Falchani is considered to a be hydrothermally altered ion-clay deposit hosted within lacustrine volcanoclastic and rhyolitic tuff rocks. The origin and formation of these deposits is heavily debated still. (Bowell et al. 2020). Lithium rich brines are formed through the chemical weathering of volcanic lithium bearing rocks by hydrothermal fluids usually restricted to basins in areas of high evaporation, forming lithium carbonate minerals such as zabuyelite. Prior technical reports have also proposed that the Li-bearing volcanic tuff is interpreted to have been deposited sub-aerially, and the transitional Li-bearing breccias are interpreted to have been deposited within a crater lake volcano-sedimentary environment (Nupen 2019, Riordan et al., 2020).

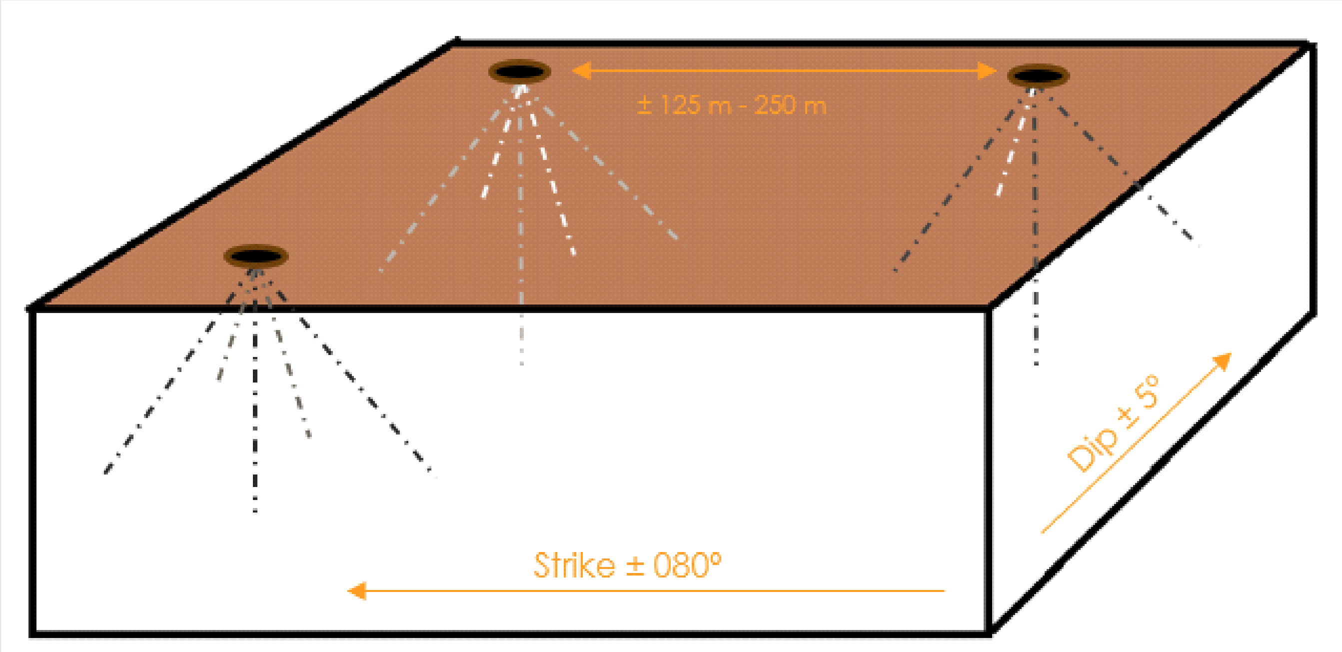
Close to 70% of the world's lithium resources are situated in the borders of Chile, Bolivia and Argentina (Lithium Triangle) area, but these deposits only account for 40% of global Li production (Bowell et al 2020). The Lithium Triangle contains the largest brine source lithium deposits such as Salar de Atacama, Sala de Uyuni and Salar de Homebre Muerto (Nupen 2019). While pegmatite deposits account for approximately 60% of global Li production, more focus is being directed to exploration and development of Li volcanic clay deposits (Bowell et al 2020).

9.0 EXPLORATION

The section summarizes exploration that has occurred since the previous Technical Report (Nupen, 2019, Riordan et al., 2020). Prior exploration is summarized in Section 6.

Exploration was initiated at the Falchani Project as a result of an observed radiometric anomaly. In 2018 Plateau Energy Metals undertook surface sampling and collected 181 field grab samples, which were analyzed for lithium. Between 2017 and 2018 Plateau Energy Metals conducted a drilling campaign of 51 diamond drill holes for a total drilling length of 14,816 m. Due to drill access limitations, the drilling was mainly undertaken from a series of platforms, with anything from two to nine drillholes being drilled radially from each platform, shown in Figure 9-1, Drilling Configuration. The platform spacing resulted in mineralized zone intersection separation distances ranging from 50 m to up to 200 m. Results from this exploration was incorporated into a MRE in 2019 (Nupen, 2019).

Recent exploration by American Lithium at Falchani include a LiDAR survey of the property, and additional drilling of 15 piezometer core holes in 2022-23. The core holes were analyzed for lithium and the potential of byproducts cesium, rubidium, and potassium. Details on the 2022-2023 drilling is found in Section 10.
A drone-based laser imaging detection and ranging (LiDAR) Survey was flown by Global Mapping S.A.C. during April 2023. The results of this survey were used in the building of the geologic resource model described in Section 14.



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Drilling Configuration

Figure 9-1

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DATE: 23/ 12/ 12

Project Location: Puno District, Peru
Client: American Lithium Corp.
Project: 210223585

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10.0 DRILLING

10.1 Drilling program

10.2 Drilling methodology

A combination diamond core holes and piezometer holes have been drilled on the Falchani Property. Drilling began in 2017 and is planned to continue in the next few years. The previous technical reports (Riordan et al., 2020; Nupen, 2019) drill hole database included holes from the 2017 and 2018 drilling campaigns and consisted of 52 diamond core holes totaling a length of 14,816 m. For this Technical Report update, an additional 15 piezometer drill holes were completed for a total of 67 drill holes used to define the mineral resource estimate as outlined in Section 14.

The additional 15 holes were completed by American Lithium owned drill rigs with local contract personnel. The 15 vertical piezometer holes were drilled from 10 platforms for a total length of 3,075 m. Table 10.1 shows the list of all drill hole locations used within the model with their details on year, depth, and type. Figure 10-1, Drill Hole Location Map, shows the locations of the holes listed in Table 10.1.

Table 10.1 Drill Hole Locations, Inclination and Depth

Hole Name	Drilling Campaign	Easting	Northing	Elevation (m)	Depth (m)	Dip	Azimuth
PCHAC 01-TNE	2017-18	319,729	8,451,374	4,755	183	-55	55
PCHAC 01-TNW	2017-18	319,729	8,451,374	4,755	146	-55	355
PCHAC 01-TSE	2017-18	319,729	8,451,374	4,755	119	-60	130
PCHAC 01-TSW	2017-18	319,729	8,451,374	4,755	83	-55	265
PCHAC 01-TSW1	2017-18	319,732	8,451,372	4,754	261	-55	215
PCHAC 01-TV	2017-18	319,729	8,451,374	4,755	133	-90	180
PCHAC 01-TV1	2017-18	319,732	8,451,372	4,754	178	-90	0
PCHAC 02-TSE	2017-18	319,875	8,451,465	4,738	192	-60	135
PCHAC 02-TV	2017-18	319,875	8,451,465	4,738	202	-90	0
PCHAC 03-TE	2017-18	319,852	8,451,253	4,748	149	-60	90
PCHAC 03-TSW	2017-18	319,852	8,451,253	4,748	158	-55	230
PCHAC 03-TV	2017-18	319,852	8,451,253	4,748	159	-90	0
PCHAC 04-TV	2017-18	319,748	8,451,643	4,764	269	-90	90
PCHAC 05-TV	2017-18	320,134	8,451,868	4,718	239	-90	0
PCHAC 06-TE	2017-18	319,712	8,452,003	4,718	131	-60	90
PCHAC 06-TN	2017-18	319,712	8,452,003	4,718	107	-60	0
PCHAC 06-TV	2017-18	319,712	8,452,003	4,718	104	-90	0
PCHAC 07-TNE	2017-18	319,789	8,452,212	4,727	246	-90	0
PCHAC 07-TV	2017-18	319,794	8,452,221	4,725	302	-90	0
PCHAC 08-TNE	2017-18	319,540	8,451,445	4,740	264	-70	55

Table 10.1 Cont'd

Hole Name	Drilling Campaign	Easting	Northing	Elevation (m)	Depth (m)	Dip	Azimuth
PCHAC 08-TV	2017-18	319,540	8,451,445	4,740	88	-90	0
PCHAC 09-TNW	2017-18	319,641	8,451,679	4,755	309	-55	325
PCHAC 09-TV	2017-18	319,641	8,451,679	4,755	224	-90	0
PCHAC 10-TV	2017-18	319,504	8,452,028	4,718	143	-90	0
PCHAC 11-TSW	2017-18	320,167	8,452,361	4,688	244	-90	0
PCHAC 12-TV	2017-18	318,853	8,451,298	4,758	175	-90	0
PCHAC 12-TW	2017-18	318,853	8,451,298	4,758	148	-55	270
PCHAC 13-TV	2017-18	318,900	8,451,499	4,747	143	-90	0
PCHAC 13-TW	2017-18	318,900	8,451,499	4,747	174	-55	270
PCHAC 14-TV	2017-18	318,992	8,451,753	4,700	179	-90	0
PCHAC 14-TW	2017-18	318,992	8,451,753	4,700	401	-55	270
PCHAC 16-TNE	2017-18	319,932	8,451,674	4,754	213	-60	45
PCHAC 16-TV	2017-18	319,932	8,451,674	4,754	211	-90	90
PCHAC 17-TV	2017-18	320,012	8,451,552	4,729	187	-90	0
PCHAC 19A-TS	2017-18	319,810	8,451,060	4,738	59	-55	245
PCHAC 19A-TV	2017-18	319,810	8,451,060	4,738	42	-90	0
PCHAC 19-TV	2017-18	319,908	8,450,966	4,720	157	-90	0
PCHAC 23-TV	2017-18	319,946	8,451,065	4,698	210	-90	0
PCHAC 25-TV	2017-18	319,326	8,452,171	4,627	42	-90	0
PCHAC 29-TN	2017-18	319,552	8,452,104	4,696	224	-60	360
PCHAC 29-TV	2017-18	319,552	8,452,104	4,696	255	-90	0
PCHAC 30-TSW	2017-18	319,938	8,451,940	4,745	227	-55	250
PCHAC 30-TV	2017-18	319,938	8,451,940	4,745	222	-90	0
PCHAC 32-TNW	2017-18	318,562	8,451,416	4,802	122	-55	315
PCHAC 32-TV	2017-18	318,562	8,451,416	4,802	71	-90	0
PCHAC 32-TW	2017-18	318,562	8,451,416	4,802	114	-55	270
PCHAC 33-TV	2017-18	318,698	8,451,613	4,727	342	-90	0
PCHAC 33-TW	2017-18	318,698	8,451,613	4,727	246	-55	270
PCHAC 36-TV	2017-18	318,297	8,451,635	4,804	74	-90	270
PCHAC 36-TW	2017-18	318,297	8,451,635	4,804	174	-55	270
PCHAC 41-TV	2017-18	319,648	8,451,444	4,762	79	-90	90
PCHAC 43-TV	2017-18	319,626	8,451,615	4,756	115	-90	0
PZ01-TV	2022-23	318,267	8,452,180	4,750	233	-90	0
PZ01-TV2	2022-23	318,278	8,452,180	4,750	226	-90	0
PZ01-TV3	2022-23	318,256	8,452,180	4,750	300	-90	0
PZ02-TV	2022-23	318,629	8,452,037	4,722	300	-90	0
PZ03-TV	2022-23	319,181	8,452,011	4,642	169	-90	0
PZ04-TV	2022-23	318,087	8,451,593	4,847	233	-90	0

Table 10.1 Cont'd

Hole Name	Drilling Campaign	Easting	Northing	Elevation (m)	Depth (m)	Dip	Azimuth
PZ05-TV	2022-23	319,163	8,451,739	4,650	214	-90	0
PZ06-TV	2022-23	318,986	8,451,507	4,726	46	-90	0
PZ06-TV1	2022-23	318,996	8,451,507	4,722	100	-90	0
PZ06-TV2	2022-23	318,976	8,451,507	4,729	34	-90	0
PZ06-TV3	2022-23	318,987	8,451,497	4,726	256	-90	0
PZ07-TV	2022-23	317,889	8,451,584	4,879	234	-90	0
PZ08-TV	2022-23	318,231	8,451,188	4,883	209	-90	0
PZ09-TV	2022-23	318,500	8,451,257	4,882	165	-90	0
PZ10-TV	2022-23	318,266	8,451,615	4,811	251	-90	0

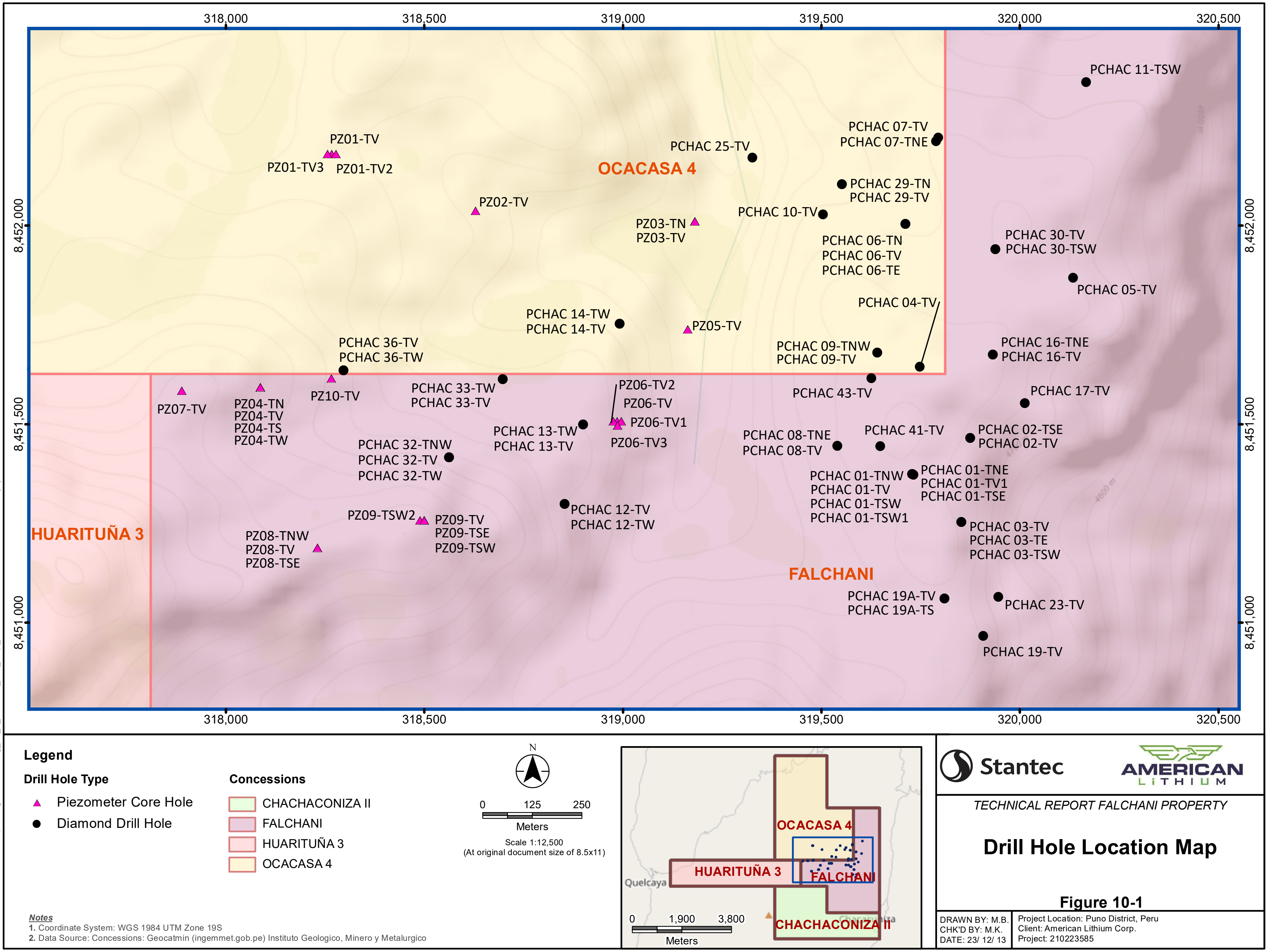


Figure 10-1

Drill Hole Location Map

Data for the added 67 drillholes were provided as individual files for both lithology and laboratory assays by American Lithium staff. Lithology was received by either Excel or assay data was provided by excel spreadsheets accompanied by the original laboratory PDF certificates. Information on sample depths and QA/QC samples were acquired from a combination of the files mentioned above and follow up communications with American Lithium staff. Stantec compiled the individual data files into a MinePlan software Torque database for insertion into a MinePlan resource model. Downhole thicknesses for vertical drill holes are considered accurate true thickness intersections.

Drill core samples are cut longitudinally with a diamond saw, with one-half of the core placed in sealed bags and shipped to Certimin's sample analytical laboratory in Lima for sample preparation, processing, and ICP-MS/OES multi-element analysis, see Section 11. Certimin is an ISO 9000 certified assay laboratory.

10.3 Sample Recovery and Core

The core recovery over the length of the drillholes is approximately 95%, which is above industry standard deeming the overall core recovery as acceptable.

11.0 SAMPLE PREPARATION, ANALYSES & SECURITY

The data which informs these lithium Mineral Resource estimates are derived from the exploration efforts of American Lithium. Stantec reviewed all Quality Assurance and Quality Control (QAQC) data for the Project and the documented QAQC procedures described in Stantec's (TMC) 2019 NI43-101 technical report (TMC, 2019).

11.1 Sampling Methods

Whole core (over the entire length of the drillhole) was sampled. Individual samples varied from a minimum of 0.5 m to a maximum of 4.5 m, with a mean of 1.0 m. Selection of the length to sample was based on visual observation of the mineralization and assisted by radiometric measurements.

11.2 Sampling Recovery

Core from these deposits was scrutinized by the TMC QP during the May 2018 site visit and again by the Stantec QP in May 2023, although the overall quality of the core recovered was good, there are zones, particularly within the Upper and Lower Breccia, where drilling conditions are difficult, and the core recovery was relatively poor but adequate for representative sampling. Observation of core available on site was that, although the core was in some cases blocky, the core recovery in the Lithium-rich Tuff was good, and the core pieces fit together well in the core boxes prior to sampling. In the Upper and Lower Breccias, the core recovered was often broken, and an assessment of core recovery was difficult. The overall core recovery was 95%.

Given the overall thickness of the mineralized zones, the consistent lithium grade within the zones and the relatively good core recovery, it is considered unlikely that any bias related to core recovery could be introduced.

11.3 Sample Quality

As the entire core was sampled, the sample taken from the core box is considered representative. Whole core was sampled in order to minimize the risk of sample loss. The method of sampling the whole core is sound, even though no intact library sample was retained. A comprehensive photo archive has been retained along with the sample reject material.

11.3.1 Sample Preparation

Sample preparation occurred on site at a mobile field station which was located close to the drill rigs and periodically re-located. Once logged and photographed, the entire core identified for sampling was placed into a sampling bag. The pre-marked aluminium tag was stapled to the sample bag. Sample depths were recorded together with a basic geological description on a sampling reconciliation log. This log was later captured into an Excel spreadsheet.

Quality control samples in the form of standards were inserted at the permanent field office located in the village of Isivilla. These standards were prepared by Macusani Yellowcake and certified by ALEPH Group & Asociados S.A.C. Metrologia de las Radiaciones (Radioactivity Measuring Techniques) by having check analyses of the standards completed at CERTIMIN SA (CERTIMIN), which was previously known as the Centro de Investigación Minera y Metalůrgica (CIMM), laboratory in Lima.

11.3.2 Sample Delivery Procedures

The complete sample batch, accompanied by a senior representative of the Macusani Yellowcake exploration team, was sent by road to the town of Juliaca. The samples entered the CERTIMIN LIMS system at this point. From the preparatory laboratory in Juliaca, the pulverized samples were transported by CERTIMIN, to the main CERTIMIN Laboratory in Miraflores, Lima, by either road or as air freight.

11.3.3 Sample Preparation and Analysis

Sample preparation and analysis was carried out through the CERTIMIN Laboratory.

Preparation Laboratory (CERTIMIN - Juliaca*)*

The samples were weighed on delivery and entered into the LIMS system. Drying was completed over a 12-hour period at 100˚ C. Crushing was done by two jaw crushers; the first to 6 mm and the second to 2.5 mm. Crushing was completed when the sample was 100% <2.5 mm. Laboratory standards were entered into the stream after the first jaw crusher. The jaw crushers were flushed with quartz, some of which were sent to the Lima offices for analysis on a regular basis.

One certified reference material, one blank sample and two duplicate samples were incorporated into each batch of 50 samples delivered to CERTIMIN for laboratory analytical quality assurance and control (QAQC). These results were given to Macusani Yellowcake on the analysis certificates.

After homogenization, the crushed sample was riffle split to an approximate 250 g sample that was pulverized by a ring mill. The ring mill was flushed with quartz after approximately every five samples or if there was a marked color change in the crushed material. The preparation facility strives to have the pulverized material at 85% <200 mesh grain size.

Acid Digestion and Final Analysis (CERTIMIN - Miraflores)

The pulverized material was manually homogenized. Wet samples were dried before an approximate 0.20g aliquot (±0.02g) sample was spooned out and digested with a mixture of HCl+HNO3+HF+HClO4 acid over a period of eight hours. The concentration of lithium was determined from the acid digested liquid by inductively coupled plasma - mass spectrometry (ICP-MS) for abundances of 0.05 ppm to 10,000 ppm (1%). Any results greater than 10,000 ppm were re-analyzed via inductively coupled plasma-optical emission spectrometry (ICP-OES). The latter instrument would require a new acid digest to be completed on an aliquot of 0.25 g. The ICP-MS and ICP-OES equipment is calibrated daily with three appropriate standards.

Analytical Quality Assurance and Control (QAQC) Procedures

The data which informs these lithium Mineral Resource estimates was generated by American Lithium, or its subsidiaries, since the initiation of exploration on the Falchani Project in 2017. American Lithium inserted standard, blank, and duplicate samples (Field) into the sampling streams, in addition to those inserted by the laboratory, in order to assess the accuracy and precision of the lithium analytical results.
A summary of the overall statistics for the QAQC samples is shown in Table 11.1

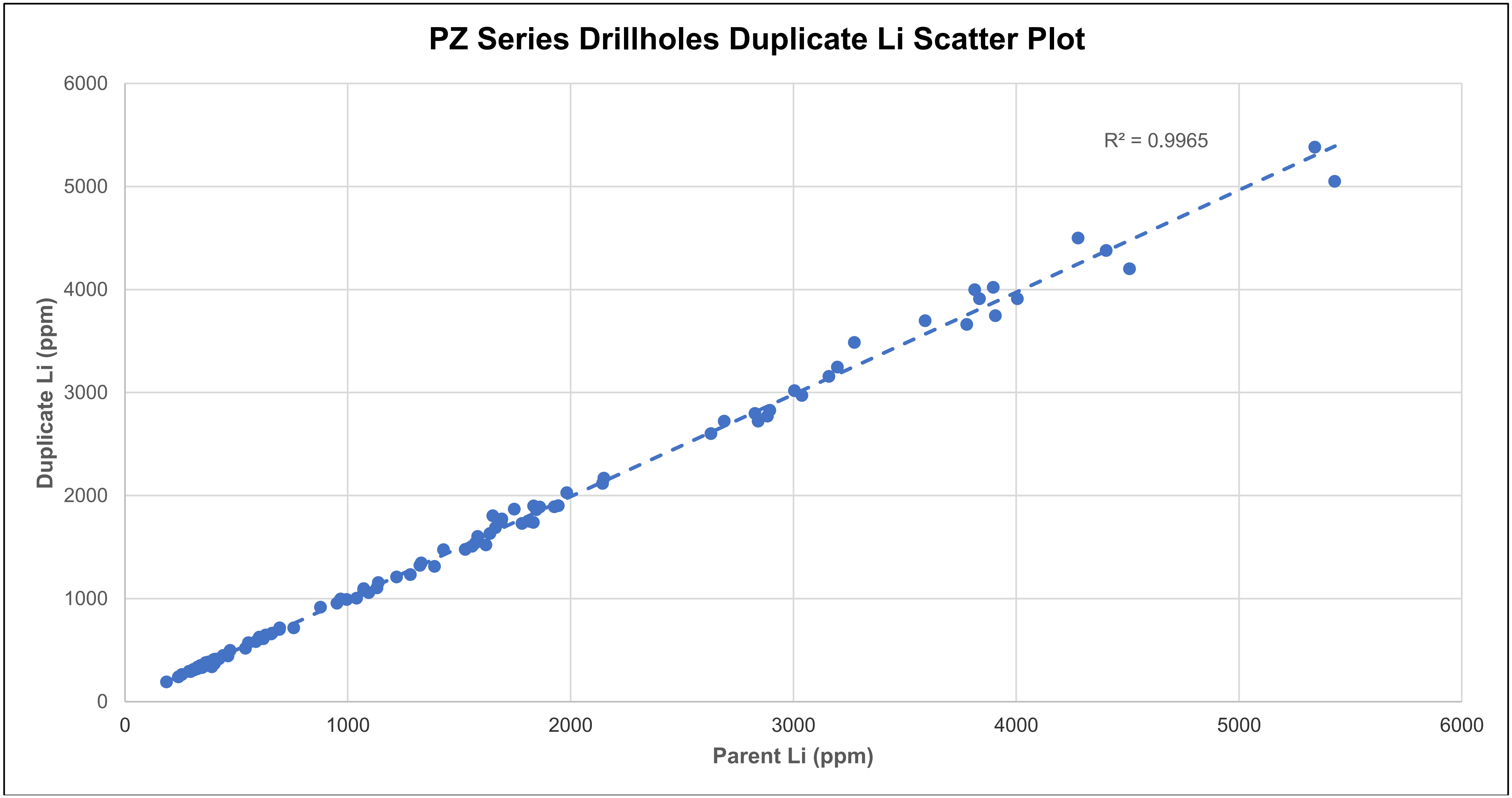
Table 11.1 Summary of QAQC Samples for All Drillholes

No. of Samples	Duplicates		Standards		Blanks		% QAQC
	Field	Laboratory	Field	Laboratory	Field	Laboratory	
12,738	264	389	106	580	110	342	14

QAQC data was reviewed for both PCHAC (2017-2018) and PZ Series (2023) drillholes. Stantec reviewed the documentation for PCHAC series QAQC data from TMC's 2019 report, and found the results to be accurate; therefore, only QAQC results for PZ Series drillholes are discussed below.

Duplicate Data

Laboratory duplicate Li values were paired with their respective parent sample and then plotted together. Duplicate analysis showed positive repeatability, with a R^2 value of 0.9965 on 105 duplicate pairs as shown in Figure 11-1, PZ Series drill holes duplicate Li scatter plot. All duplicate Li values were within 20% of the original Li value and 104 out of 105 duplicate Li values were within 10% of the original Li value.



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Legend

- Sample Value
- Trend Line
- Li — Lithium
- ppm — parts per million

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PZ Series Drillholes Duplicate Li Scatter Plot

Figure 11-1

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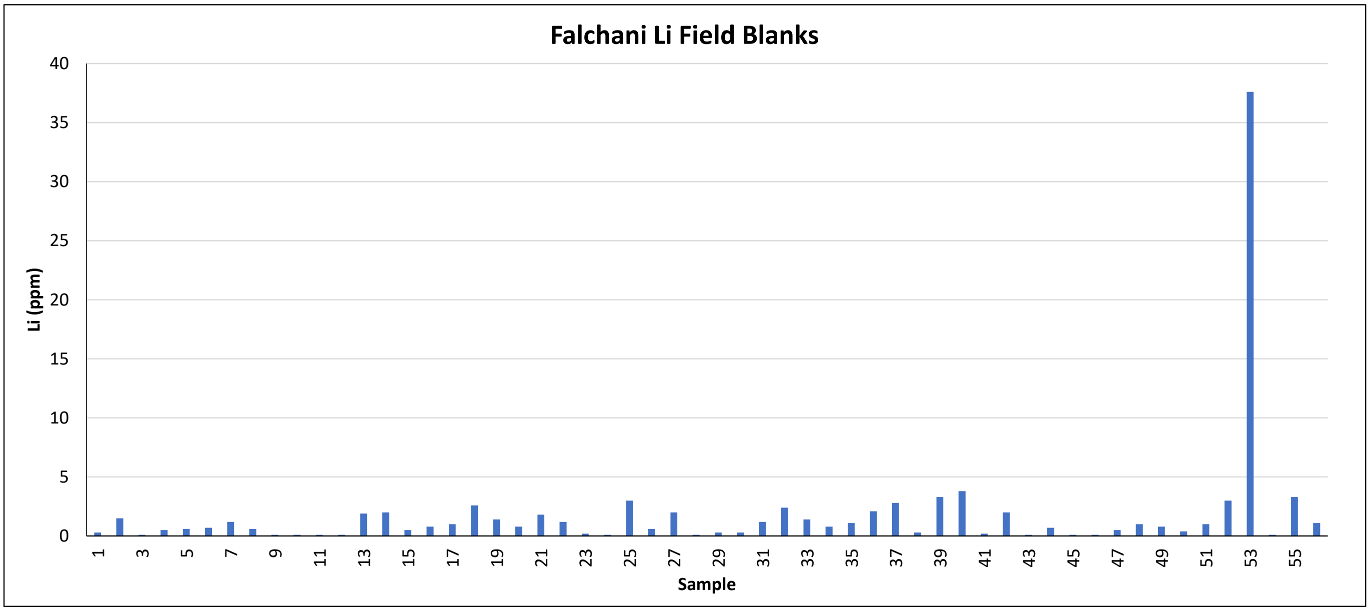
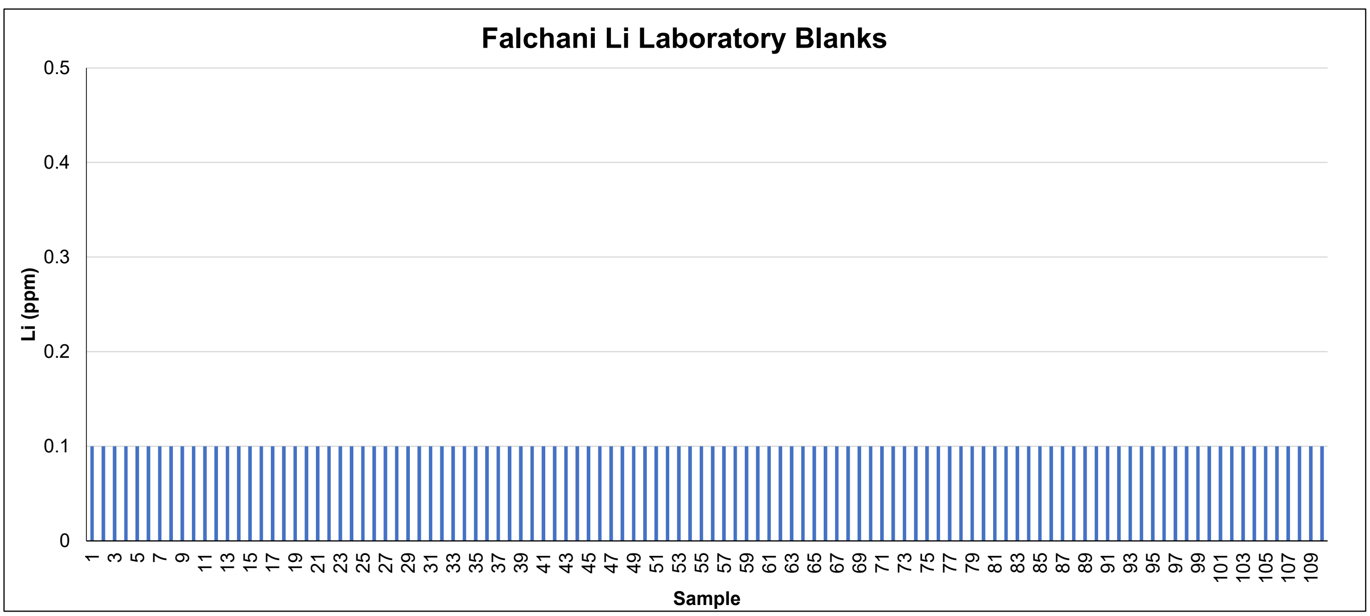
Blank Data

Field and laboratory blank values were plotted in order of drillhole name. The analytical results for field and laboratory blanks are shown in Figure 11-2, PZ Series Lithium Field Blanks (A) and Laboratory Blanks (B). The field blanks show low levels of lithium. Laboratory blanks return values below the detection limit of >0.1 Li ppm. The levels of lithium returned from the field blanks are not considered material, when compared with the anticipated lithium grades within the Project.

A



B



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PZ Series
Lithium Field Blanks (A)
and Laboratory Blanks (B)

Figure 11-2

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Sample Database

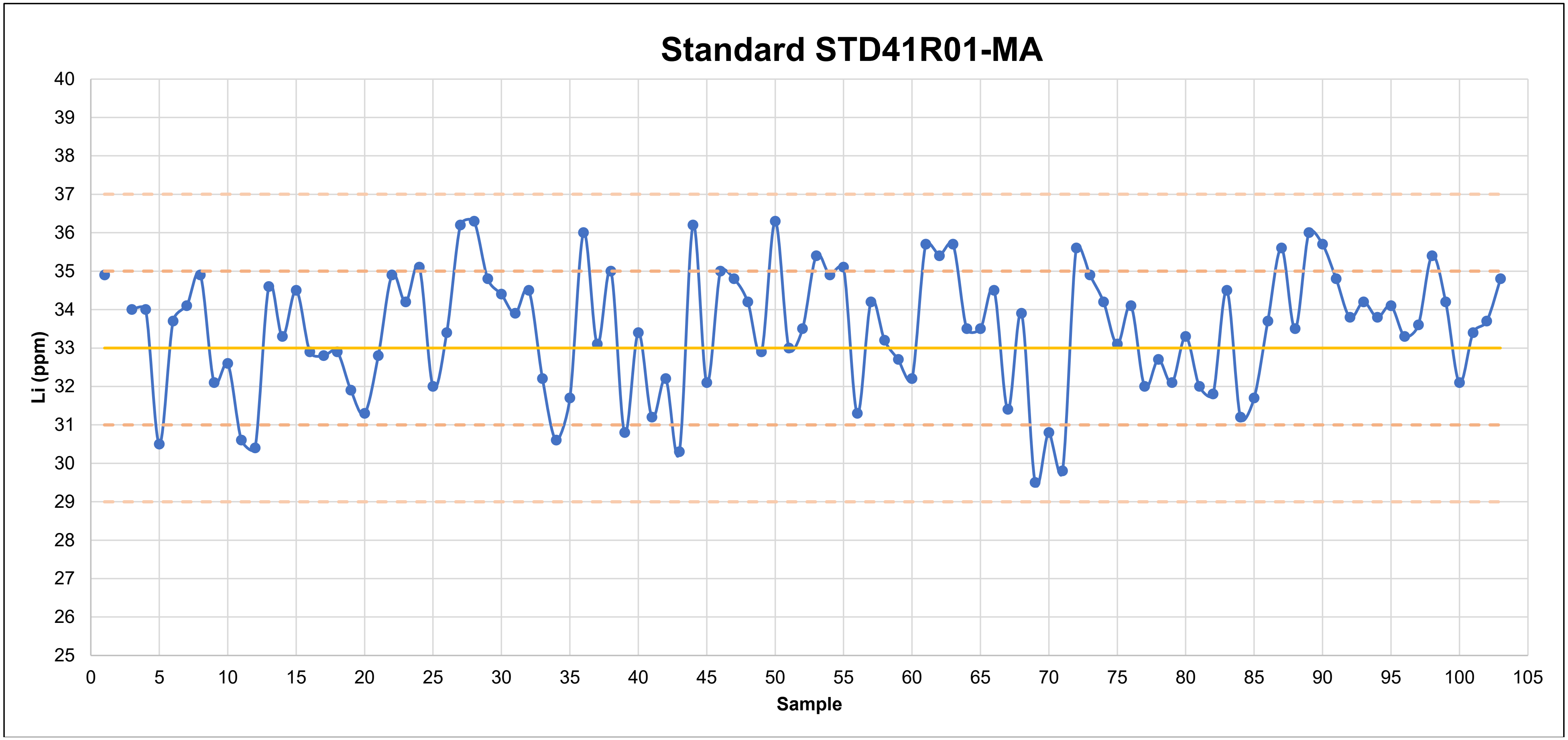
Stantec received the drillhole logging results as a series of Microsoft Excel files. The database was imported into Leapfrog Geo for further analysis. A check on the accuracy of the transposition of approximately 5% of the sample results from assay certificate to database was completed by Stantec, and no transcription errors were identified.

Standard Data

Table 11.2 displays the standards used and their respective certified Li values and certified standard deviations (SD). Analysed Li standard values for the PZ series holes were plotted in order of drillhole name shown on Figure 11-3, PZ Series Lithium Standard STD 41R01-MA.

Table 11.2 PZ Series Lithium Standards

Standard Name	Reported Element	Certified Element Value (ppm)	Certified Low 2SD (ppm)	Certified High 2SD (ppm)
STD41R01-MA-ICPOESMS	Li	33	29	37
OREAS 149	Li	9,930	9,390	10,470



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Legend

Sample Value

Li Lithium

ppm parts per million

Standard Li

33 ppm Standard Value

+/- 2 Standard Deviations of Standard

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PZ Series Lithium
Standard STD 41R01-MA

Figure 11-3

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Project: 210223585

Standard OREAS149 was used intermittently and only three (3) Li values were reported. The three (3) values were within 1 SD. The QP believes three (3) samples is an inadequate sample population to generate a chart of standard performance. Standard values for by product elements on OREAS149 (Cs, and Rb) and NSC DC 86304 (Cs) were reviewed. By product values from both standards fell within two (2) SD.

The results for the standards inserted for lithium are considered acceptable.

Adequacy of Laboratory Procedures and Sample Security

It is the opinion of the Qualified Person, following an audit of QAQC assay data, that the exploration data is adequate for the basis for building a geologic model and estimation of lithium resources.

12.0 DATA VERIFICATION

An audit of the 15 additional drill holes since the prior Technical Report (Riordan et al., 2020) has been completed by the Authors and Qualified Persons. Only lithium analyses were reviewed in detail during the QA/QC.

12.1 Property Investigation, Sample and Documentation Review

Stantec Geologists and Qualified Persons, Derek Loveday, P.Geo. and Mariea Kartick, P. Geo. completed site investigations of the Falchani Property from May 19 to 20, 2023. The site visit included inspection of: core storage facility, drill hole collars, active drilling practices, core splitting equipment and core storage, sampling QAQC and the organization of lab samples. The Authors were accompanied by American Lithium representatives.

On May 17, 2023, the Authors met with the American Lithium team in Lima to review the Falchani exploration progress, examine maps and rock samples and met with the local Project Geologists. On May 18 to 19, 2023, the Authors travelled to Puno District and were transported by vehicle to the Falchani core storage facility, shown in Figure 12-1, Image A. The storage facilities were found to be well organized with core boxes properly labelled with footage, intervals and drillhole name. Stantec Geologists reviewed drill core and compared it to geologic logging of mineralogy, lithology and structural details observed in core, Figure 12-1, Image B. Exploration sampling equipment and documents for Falchani are also stored at an office within the community of Lake Isivilla. This includes core splitting equipment, maps and sampling items, which were viewed by QPs during the visit. QPs did not witness active core splitting or sampling while on site.

The Falchani Property was visited on May 20, 2023, by a well-maintained dirt road off the main highway, as shown in Figure 12-2, Image A, site visit photographs. Active drilling was observed at platforms PZ06 and PZ01, and two (2) drill hole collar locations were inspected and verified using a handheld GPS, PCHAC-13 and PCHAC-14, as shown in Figure 12-2, Image B and Figure 12-2, Image C. QPs were able to observe surface topography and the vast scale of the Falchani deposit and upper rhyolite outcrops, as shown in Figure 12-3.

A

B

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Core Storage Facility and Hole PCHAC 14-TW Core Box

Figure 12-1

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Client: American Lithium Corp.
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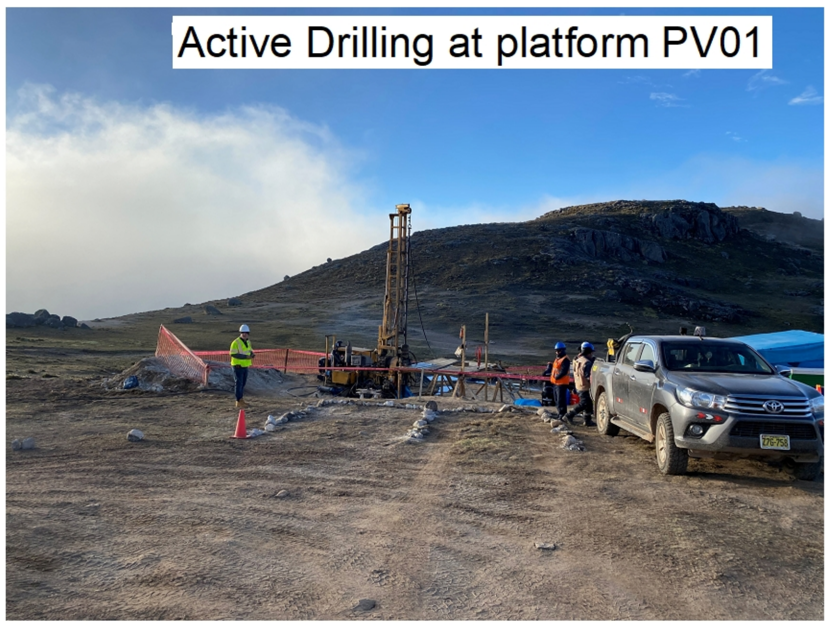
A

Roadway to Falchani Property

B



Active Drilling at platform PV01

C

Drillhole collar for PCHAC14-TW

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Site Visit Photographs

Figure 12-2

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Upper Rhyolite Outcrops on Falchani Property

Figure 12-3

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DATE: 23/ 12/ 13

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Client: American Lithium Corp.
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12.1.1 Data Validation Limitations

The Qualified Persons did not complete the following:

- Laboratory inspections of Certimin labs were not completed by the Qualified Person.
- The Qualified Person did not independently witness sample collection and methodology at the drill pads.
- Review of the Falchani long term core storage facility was not inspected during the site visit.

12.2 Opinion of the Independent Qualified Person

Stantec Q.P. opines the field procedures, sample and log documentation, and security methods meet industry standards. The quality of the warehouse organization and core storage methods are adequate.

13.0 MINERAL PROCESSING AND METALLURGICAL TESTING

Mineral processing and metallurgical testing are detailed in the prior 2020 Preliminary Economic Assessment (PEA) (Riordan et al., 2020).

The metallurgical testing program is managed by DRA Global Limited (DRA), an independent engineering company to American Lithium and Stantec. The results and associated interpretation of the metallurgical testing is still in progress and will be released in a Preliminary Economic Assessment (PEA) Report that is to follow this Technical Report.

14.0 MINERAL RESOURCE ESTIMATES

14.1 Approach

In accordance with the requirements of NI 43-101 and the Canadian Institute of Mining, Metallurgy and Petroleum Definition Standards, the Qualified Persons employed at Stantec validated the drill hole and sample data set and created a geologic model for the purposes of generating lithium resource estimates from the volcanic tuff, breccia and felsic intrusion hosted lithium deposit within the Falchani Property. The lithium resource estimate also includes average concentrations of cesium (Cs), potassium (K) and Rubidium (Rb) that have the potential to be produced as a biproduct from the processing of lithium. The geologic model described below was used as the basis for estimating mineral resources on the Falchani Property.

14.2 Basis for Resource Estimation

NI 43-101 specifies that the definitions of the Canadian Institute of Mining, Metallurgy and Petroleum (CIM) Guidelines be used for the identification of resources. The CIM Resource and Reserve Definition Committee have produced the following statements which are restated here in the format originally provided in the CIM Reserve Resource Definition document: “Mineral Resources are sub-divided, in order of increasing geological confidence, into Inferred, Indicated, and Measured categories. An Inferred Mineral Resource has a lower level of confidence than that applied to an Indicated Mineral Resource. An Indicated Mineral Resource has a higher level of confidence than an Inferred Mineral Resource but has a lower level of confidence than a Measured Mineral Resource.”

The Definition of Resources is as follows: “A Mineral Resource is a concentration or occurrence of material of economic interest in or on the Earth’s crust in such form, quality and quantity that there are reasonable prospects for eventual economic extraction. The location, quantity, grade, continuity, and other geological characteristics of a Mineral Resource are known, estimated or interpreted from specific geological evidence and knowledge, including sampling.” “Material of economic interest refers to diamonds, natural inorganic material, or natural fossilized organic material including base and precious metals, coal, and industrial minerals.” Lithium falls under the industrial minerals’ category. The committee went on to state that: “The term Mineral Resource covers mineralization and natural material of intrinsic economic interest which has been identified and estimated through exploration and sampling and within which Mineral Reserves may subsequently be defined by the consideration and application of technical, economic, legal, environmental, social, and governmental factors.

14.3 Socioeconomic and Government Factors

The phrase ‘reasonable prospects for eventual economic extraction’ implies a judgment by the Qualified Person in respect of the technical and economic factors likely to influence the prospect of economic extraction.

Interpretation of the word ‘eventual’ in this context may vary depending on the commodity or mineral involved. For example, for some coal, iron, potash deposits and other bulk minerals or commodities, it may be reasonable to envisage ‘eventual economic extraction’ as covering time periods exceeding 50 years.

However, for many gold deposits, application of the concept would normally be restricted to perhaps 10 to 15 years, and frequently to much shorter periods of time.”

Extraction of lithium from volcanic hosted lithium deposits is most similar to bulk mineral commodities such as coal and potash and as such eventual economic extraction can cover time periods in excess of 50 years depending on the size and concentration of lithium in the volcanic tuff, breccia and coarse felsic intrusion.

14.4 Data Sources

The geologic models and resulting resource estimation described within this report utilized the following data and information provided by American Lithium:

- exploration drill hole logs;
- drill hole sample data;
- surface grab samples;
- surface geologic maps;
- geologic cross sections;
- LiDAR survey;
- 2019 TMC NI43-101 (Nupen, 2019)
- 2020 Falchani PEA (Riordan, et al., 2020)

Drill holes used for geologic resource model generation were completed during two drilling campaigns occurring in the 2017 - 2018 and 2022 - 2023 exploration seasons with all meterage consisting of diamond HQ core drilling. The author would like to note that drilling during the 2017 - 2018 program; 23 drill holes were directionally drilled with inclined drilling and the remaining 28 were vertically drilled. For the 2022 - 2023 program all exploration holes were drilled vertically.

Details of applied drilling and sampling methods are explained in Sections 10 and 11 of this report. Drill hole sampling data is detailed in Section 11. Surface grab samples were used for guidance of lithologic feature interpolation for the geologic model framework only, these samples were not used for resource estimation and had no influence on grade calculations. The geologic cross sections provided by American Lithium were drawn at various orientations and displayed lithologic and structural interpretations along drilling intercepts across the property.

Stantec acquired raw LiDAR data from American Lithium. The surface topology was derived from densified LiDAR point clouds captured by drone survey with a range of 12-20 PPSM (Pulse Per Square Meter). Stantec processed this data using ESRI ArcPro version 11 software into a Digital Terrain Model (DTM).

The provided data was deemed accurate for the purposes of estimating resources on the Property.

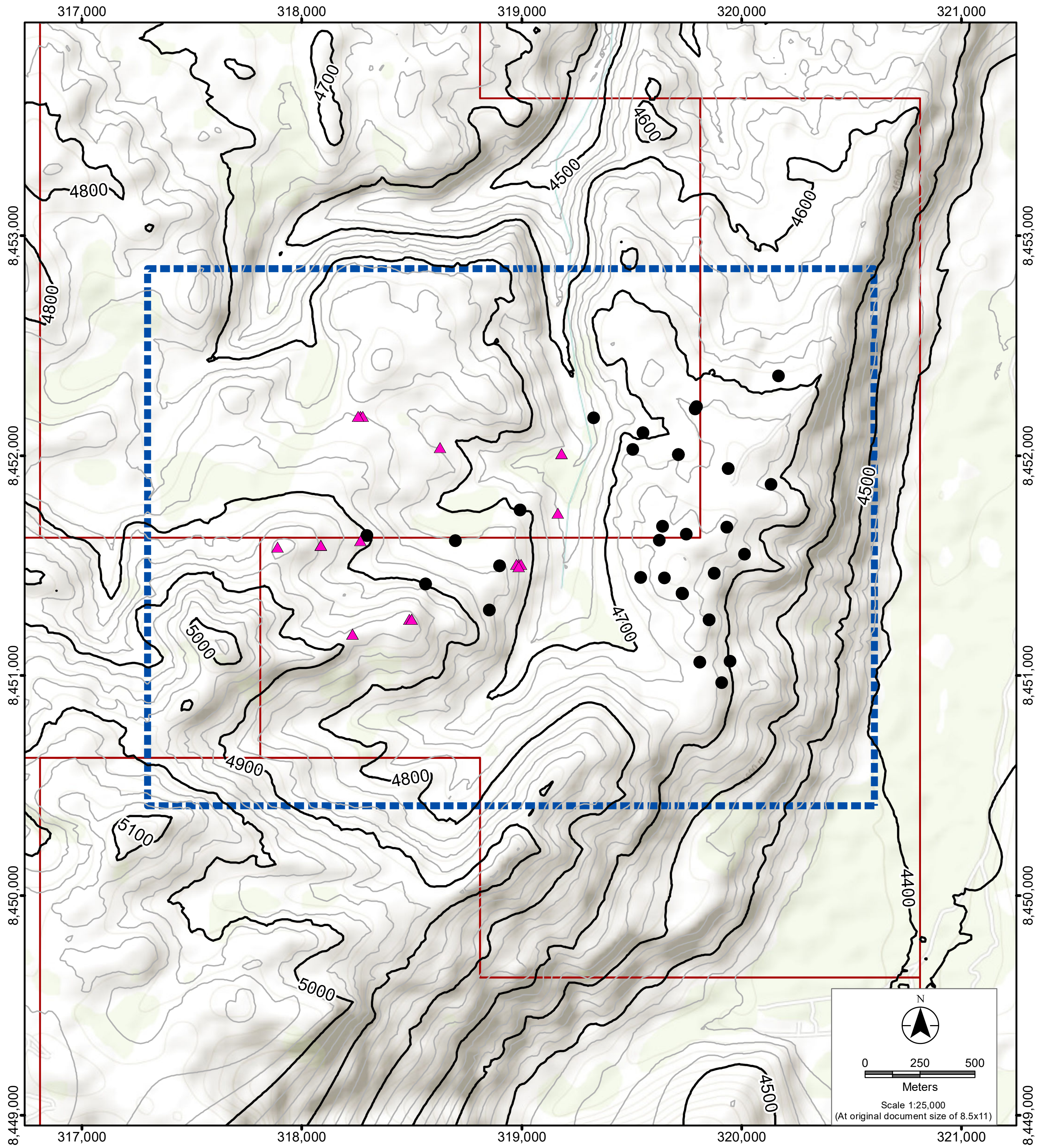
14.5 Model

The geologic model used for reporting of lithium resources was developed using Seequent’s Leapfrog geological modelling software, Leapfrog Geo version 2023.1. and Hexagon Mining’s resource modelling and mine planning software, MinePlan version 16.1.1. Leapfrog Geo and MinePlan are widely accepted throughout the mining industry for digital resource model development. Seequent’s Leapfrog Geo and

Hexagon Mining's suite of interpretive and modelling tools is well-suited to meet the resource estimation requirements for the Falchani Property. The geologic model from which lithium resources are reported is a 3D block model developed using the World Geodetic System (WGS) 1984 UTM Zone 19S and is in metric units. The model limits and block size are outlined in Table 14.1, Block Model Parameters, and the plan view extent of the geologic model is shown on Figure 14-1, Surface Topography and Model Limits Map.

Table 14.1 Block Model Parameters

Coordinate	Minimum	Maximum	Range (m)	Block (m)
Easting	317,300	320,600	3,300	20
Northing	8,450,410	8,452,850	2,440	20
Elevation	4,000	5,200	1,200	5



Legend

- Topographic Contour 25-meter*
- Topographic Contour 100-meter*
- Model Extent
- Falchani Property Concessions
- Piezometer Core Hole
- Diamond Drill Hole
- * Contours generated from LiDAR (Global Mapping S.A.C)

Notes
1. Coordinate System: WGS 1984 UTM Zone 19S
2. Data Source: Concessions: Geocatmin (ingemmet.gob.pe) Instituto Geologico, Minero y Metalurgico
Basemap Sources: Esri, HERE, Garmin, Intermap, increment P Corp., GEBCO, USGS, FAO, NPS, NRCAN, GeoBase, IGN, Kadaster NL, Ordnance Survey, Esri Japan, METI, Esri China (Hong Kong), (c) OpenStreetMap contributors, and the GIS User

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Surface Topography and Model Limits Map

Figure 14-1

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CHK'D BY: M.K.
DATE: 23/ 12/ 13

Project Location: Puno District, Peru
Client: American Lithium Corp.
Project: 210223585

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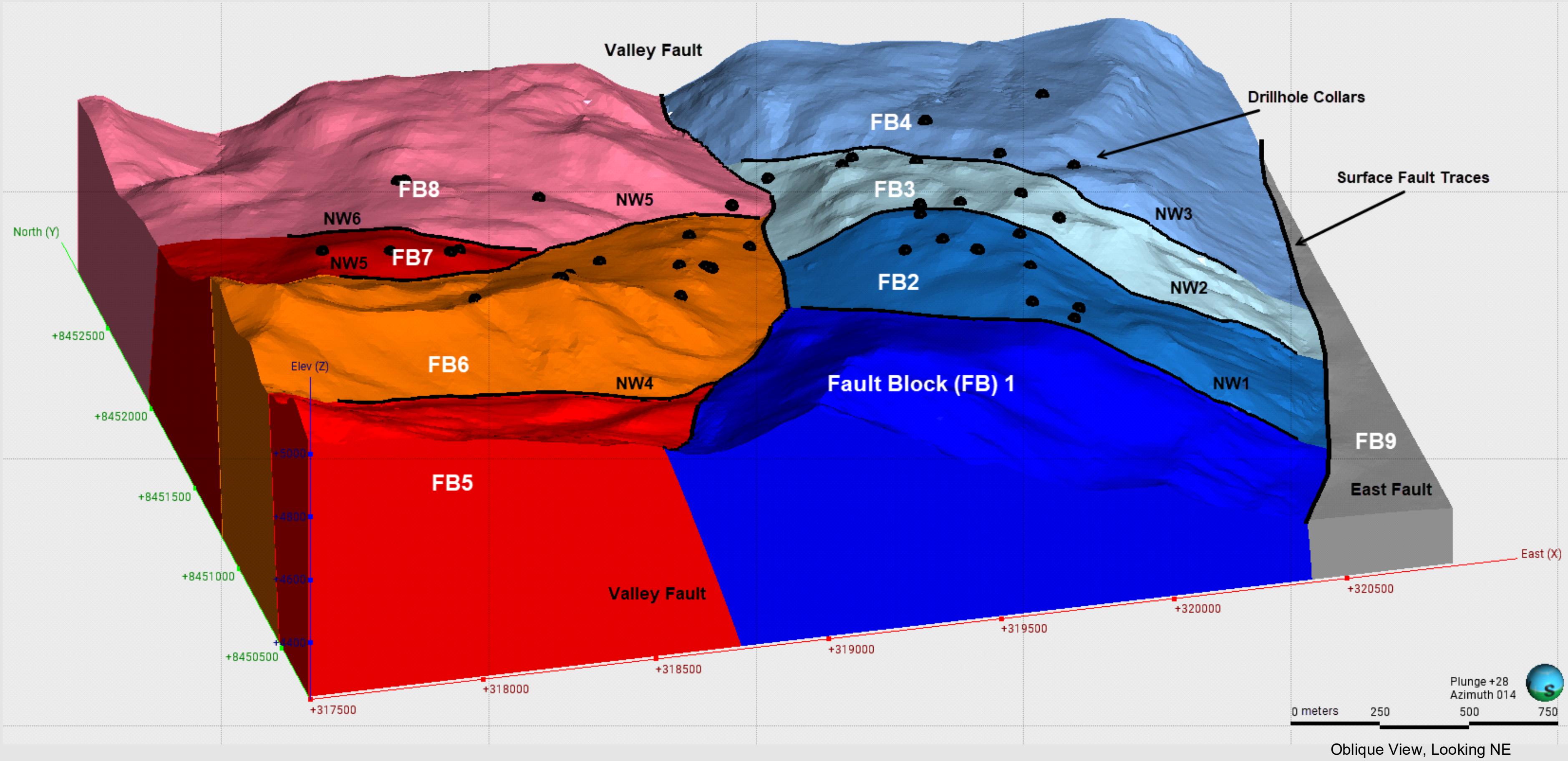
The database was verified and QAQC checks were performed prior to developing the geological model, details are documented in Section 11. A topography wireframe was created using the processed DTM data. High resolution imagery sourced from American Lithium LiDAR drone flights was draped onto the topography to identify potential structural trends from geomorphological features. Trends from surface fault mapping provided by American Lithium were also used to guide the structural interpretation. North-South (N-S) and northwest (NW) to southwest (SW) fault trends were mapped, and generally matched observed fault zone geomorphic features and drill hole logging offsets described in Section 7 and shown in Figure 7-4. In addition to imagery, previous fault trace interpretations (Nupen, 2019, Riordan et al.,2020) and observed drill hole logging offsets were used to interpolate eight (8) faults which resulted in nine (9) fault blocks within the Falchani geologic model, Figure 14-2, Model Fault Blocks.



Legend

- Drill Hole Collar
- Surface Fault Trace

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Model Fault Blocks

Figure 14-2

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DATE: 23/ 12/ 13

Project Location: Puno District, Peru
Client: American Lithium Corp.
Project: 210223585

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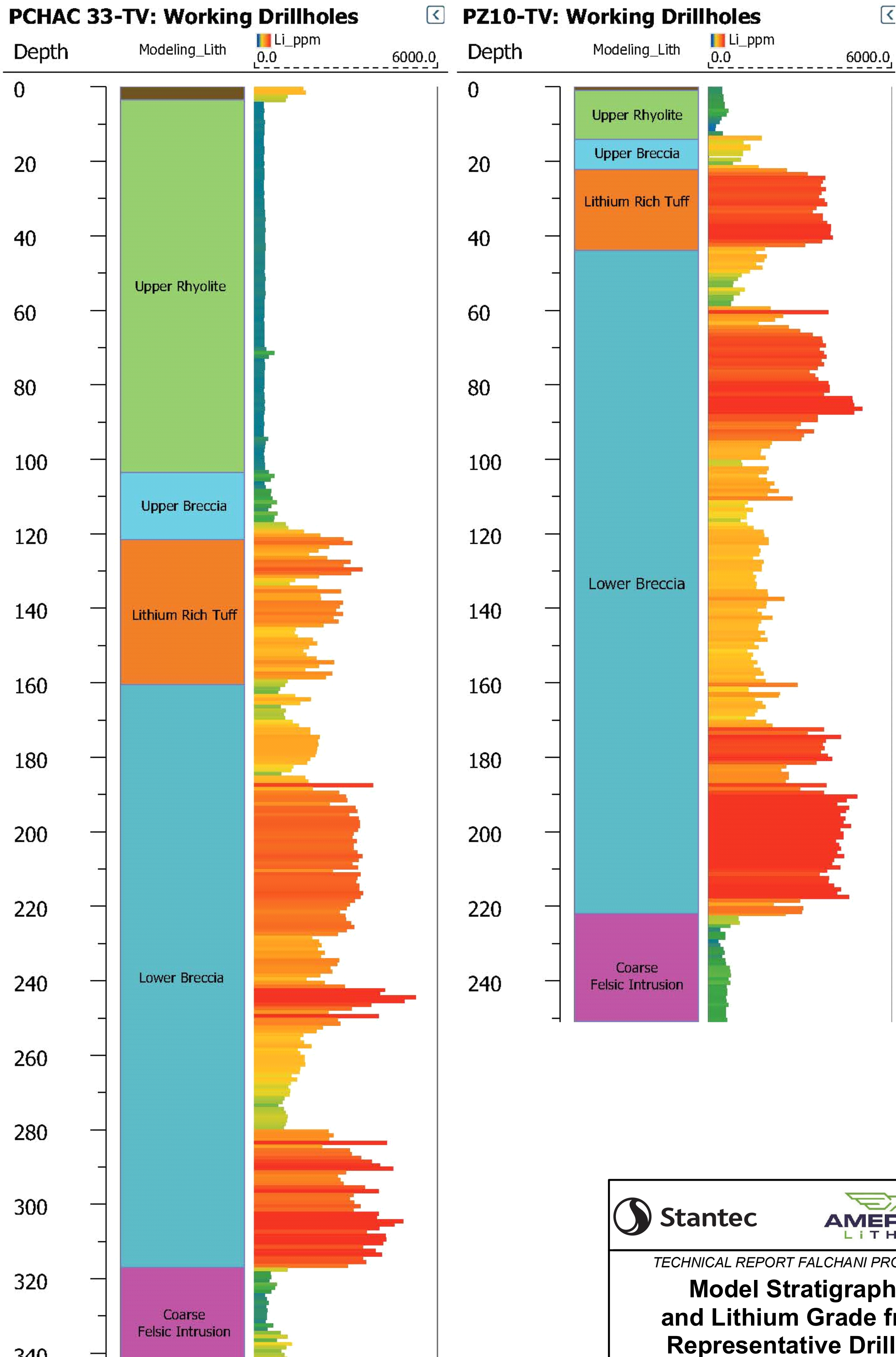
Logged drill core was utilized in determining geological contacts and lithological units. Observation of drill core log photos and drill hole database was carried out to inform lithological grouping for implicit modelling and associated contact surfaces. Figure 14-3, Model Stratigraphy and Lithium Grade from Representative Drilling, displays the stratigraphic order of typical lithologies encountered in two (2) drill holes together with lithium concentration.



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Model Stratigraphy and Lithium Grade from Representative Drilling

Figure 14-3

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CHK'D BY: M.K.
DATE: 23/ 12/ 14

Project Location: Puno District, Peru
Client: American Lithium Corp.
Project: 210223585

The logged lithologies were coded and used to implicitly model contact surfaces between each lithologic unit within each fault block. Leapfrog geo control disks were used to guide the implicit algorithm to generate more realistic surfaces. Control disks are drawn in as interpretations based on surrounding data and fault interactions. The geological model interpolations were peer reviewed and exported to MinePlan software.

Resource modeling method and approach is the development of a multiple ore percent standard block model with interpretation of geologic controls on mineralization based on exploration data. A significant new addition to the resource from prior estimates (Riordan, et al., 2020) is the recognition of an additional mineralized basement lithological unit, Coarse Felsic Intrusion (CFI), below the lower mineralized volcanic breccia horizon.

14.5.1 Model Inputs

Inputs used in the construction of the geologic model and resource estimation include the following:

- Surface topography;
- Surface geologic maps and cross sections;
- 15 vertical piezometer core holes from 10 platforms (2022 to 2023);
- 52 drill core holes (vertical and inclined) from 25 platforms (2017 to 2019);
- Drill hole and piezometer core log descriptions;
- 8,297 core samples from 52 core holes;
- 3,009 core samples from 15 piezometer holes; and
- Average specific gravity of 2.4 g/cm^3 and 2.7 g/cm^3 (CFI only)

14.5.2 Surface Topography

LiDAR drone surveys were provided by American Lithium and processed into a 2 m DTM format by Stantec. The topography was generated in the 3D block model shown in Table 14.1.

14.5.3 Structural Features

The Property is separated into nine (9) fault blocks that are split by two (2) north-south trending high angle normal faults (Valley Fault and East Fault) and six (6) northwest and southwest trending normal faults (NW1 through NW6). The location of the faults and fault blocks are illustrated in Figure 14-2 and shown in the geologic cross sections A-A' and B-B' which are detailed in Section 7, Figures 7-6 and 7-7. Modeled faults align with prominent topographic lows and areas where offset outcrop patterns are observed. The basis for the modeling of the eight (8) faults is discussed in Section 7.5 and shown in Figure 7-4. The N-S trending Valley Fault separates the model into east and west sides. The N-S trending East Fault defines an approximately 400 m difference in elevation from the highlands of the main Falchani area to a drop-down basin towards the east. The East Fault also defines the extent of modeled lithologies due to distance from drill hole data whereas the hanging wall has no modeled lithologies. The east and west sides of the model are further divided by NW-SW trending high angle faults. The east side contains faults: NW1, NW2, and NW3 and on the west, faults: NW4, NW5, and NW6. Interpolated fault placements are based on satellite imagery geomorphic features and drill hole logs. NW1 and NW3 are resource limiting faults due to distance from drilling data and observed offset, respectively.

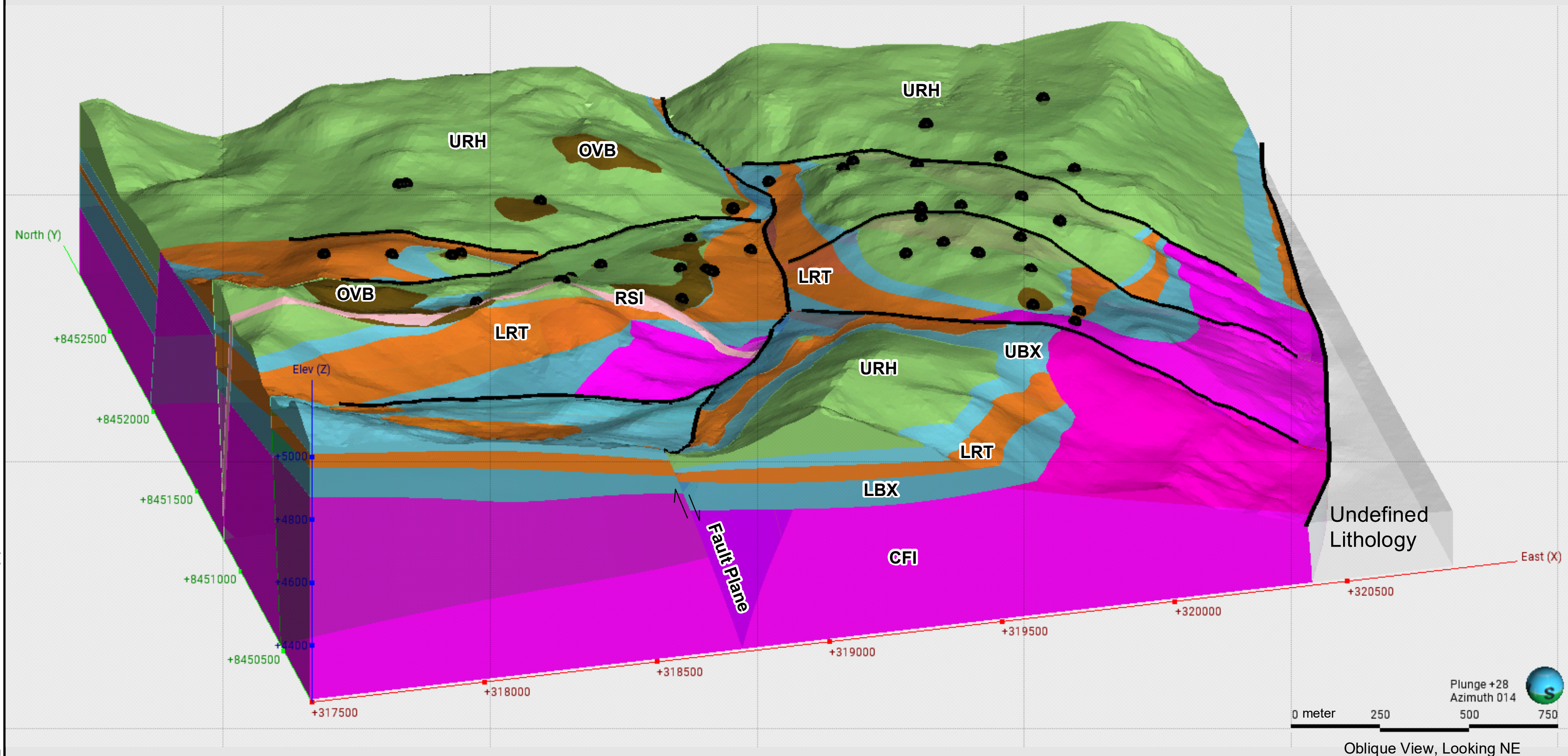
Description of the local and structural geology are detailed in Section 7.

14.5.4 Model Zones

The geologic model is separated into seven lithological zones of which four mineralized zones exist, as indicated below, from top to bottom:

1. Overburden
2. Upper Rhyolite
3. Mineralized Upper Breccia (UBX);
4. Mineralized Lithium Rich Tuff (LRT);
5. Mineralized Lower Breccia (LBX) and;
6. Mineralized Coarse Felsic Intrusion (CFI) basement unit.
7. Rhyolite Subvolcanic Intrusion

Wireframe solids generated from these seven zones are presented on Figure 14-4, 3D Geologic Model, showing an oblique view of the geologic model looking towards the northeast. Table 14.2 provides composite vertical thickness statistics of the seven lithological units as penetrated from the drill hole records. Only the upper breccia, lithium rich tuff, lower breccia and coarse felsic intrusion are considered resource. The mineralized horizons are offset by normal fault offsets that truncate the N-S trending Valley fault, shown in Figure 14-4. The CFI basement zone is intersected by 28 drillholes with the max depth of 407 m in drillhole PZ01-TV3, however the true thickness is not well defined. The CFI zone mineral resources have been limited by the generated pit depth of 300 m below surface.



Legend

- ● Drill Hole Collar
- ━ Surface Fault Trace

Lithologic Units

- Overburden (OVB)
- Upper Rhyolite (URH)
- Rhyolite Subvolcanic Intrusion (RSI)
- Upper Breccia (UBX)
- Lithium Rich Tuff (LRT)
- Lower Breccia (LBX)
- Coarse Felsic Intrusion (CFI)
- Undefined Lithology

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TECHNICAL REPORT FALCHANI PROPERTY

3D Geological Model

Figure 14-4

DRAWN BY: M.B.
CHK'D BY: M.K.
DATE: 23/ 12/ 14

Project Location: Puno District, Peru
Client: American Lithium Corp.
Project: 210223585

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Table 14.2 Vertical Zone Thickness (m) from Geologic Implicit Model

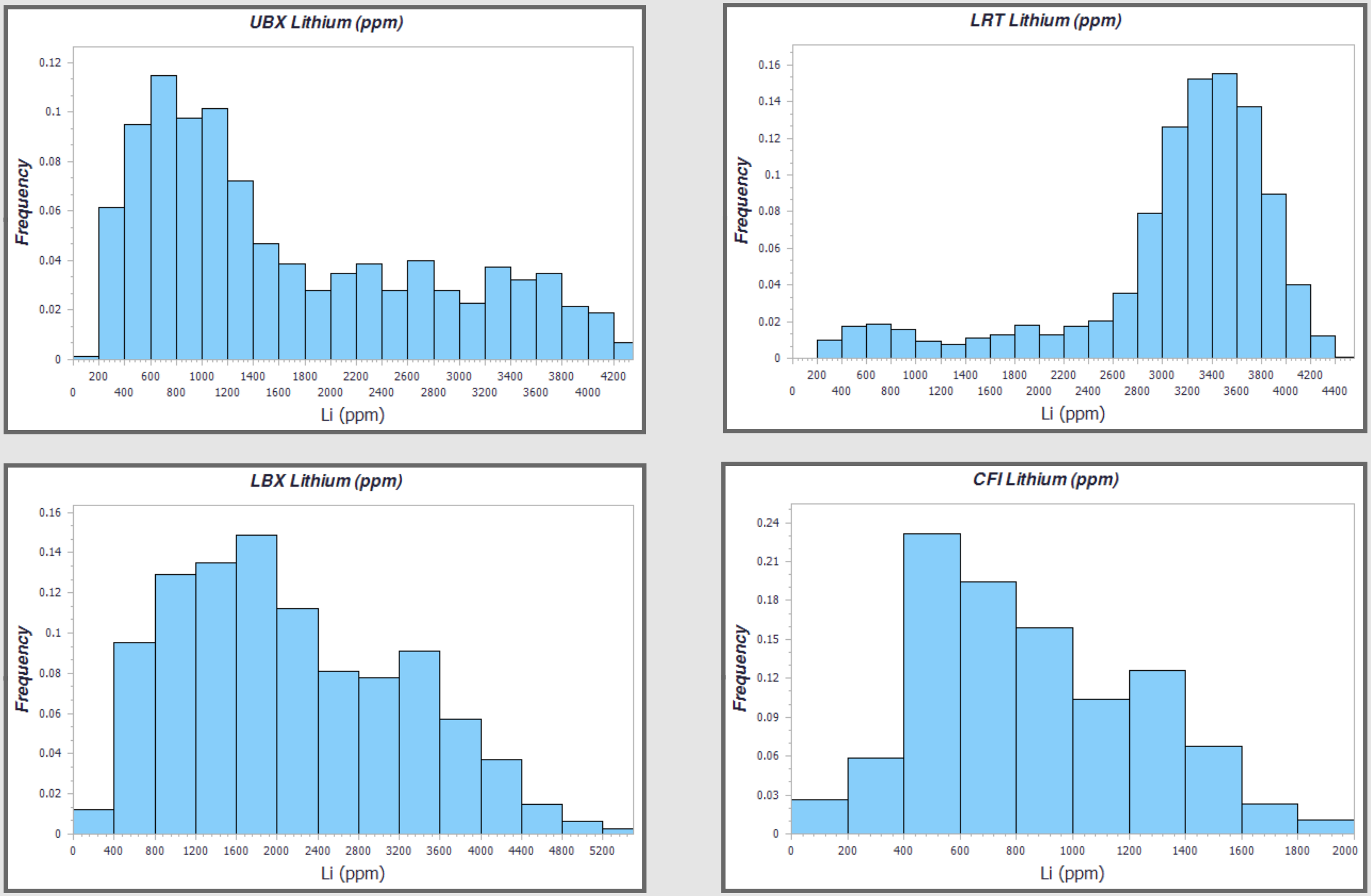
Mineralized Zone	Average Thickness (m)	
	East of Valley Fault	West of Valley Fault
UBX	30	20
LRT	60	50
LBX	50	90
CFI	-	-

14.5.5 Metal Grade Statistics within the Mineralized Zone

Prior to estimation, drill hole samples were composited at regular 1-meter intervals given that the majority (95%) of the drill hole samples assessed for lithium resource were derived from 1 m interval drill core samples. Statistics on the number of 1 m composites for Li, Cs, K and Rb concentrations from drill hole records for each mineralized zone, are shown in Table 14.3, Composite and Capping Li, Cs, K, and Rb Grades from Drill Holes. Frequency distribution chart (histogram) generated from the regular 1 m composites for lithium are shown in Figure 14-5 for the four mineralized zones. Metal grade outliers were capped as shown in Table 14.3 following observation of grade frequency distribution shown in Figure 14-5. For other by-product metals (Cs, K and Rb) select capping was applied using the same approach as that applied to lithium grades.

Table 14.3 Composite and Capping Li, Cs, K, and Rb Grades from Drill Holes

Zone	Composite	Count	Min	Max	Capping	Average
UBX	Lithium (ppm)	749	150	4,334	-	1,672
	Cesium (ppm)	749	22	6,820	5,000	684
	Rubidium (ppm)	749	18	1,878	-	845
	Potassium (%)	749	0.1	4	-	749
LRT	Lithium (ppm)	2,522	310	4,551	-	3,093
	Cesium (ppm)	2,522	3	11,390	2,000	517
	Rubidium (ppm)	2,522	322	2,288	1,800	1,281
	Potassium (%)	2,522	1	5	-	3
LBX	Lithium (ppm)	2,079	155	5,739	-	2,134
	Cesium (ppm)	2,079	2	12,160	6,000	1,457
	Rubidium (ppm)	2,079	83	2,071	-	1,059
	Potassium (%)	2,079	0.01	7	6	3
CFI	Lithium (ppm)	1,544	94	3,601	2,000	795
	Cesium (ppm)	1,544	35	5,070	1,800	414
	Rubidium (ppm)	1,544	127	1,141	1,000	518
	Potassium (%)	1,544	1	5	-	4



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Mineralized Zones Grade Distributions

Figure 14-5

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DATE: 23/ 12/ 13

Project Location: Puno District, Peru
Client: American Lithium Corp.
Project: 210223585

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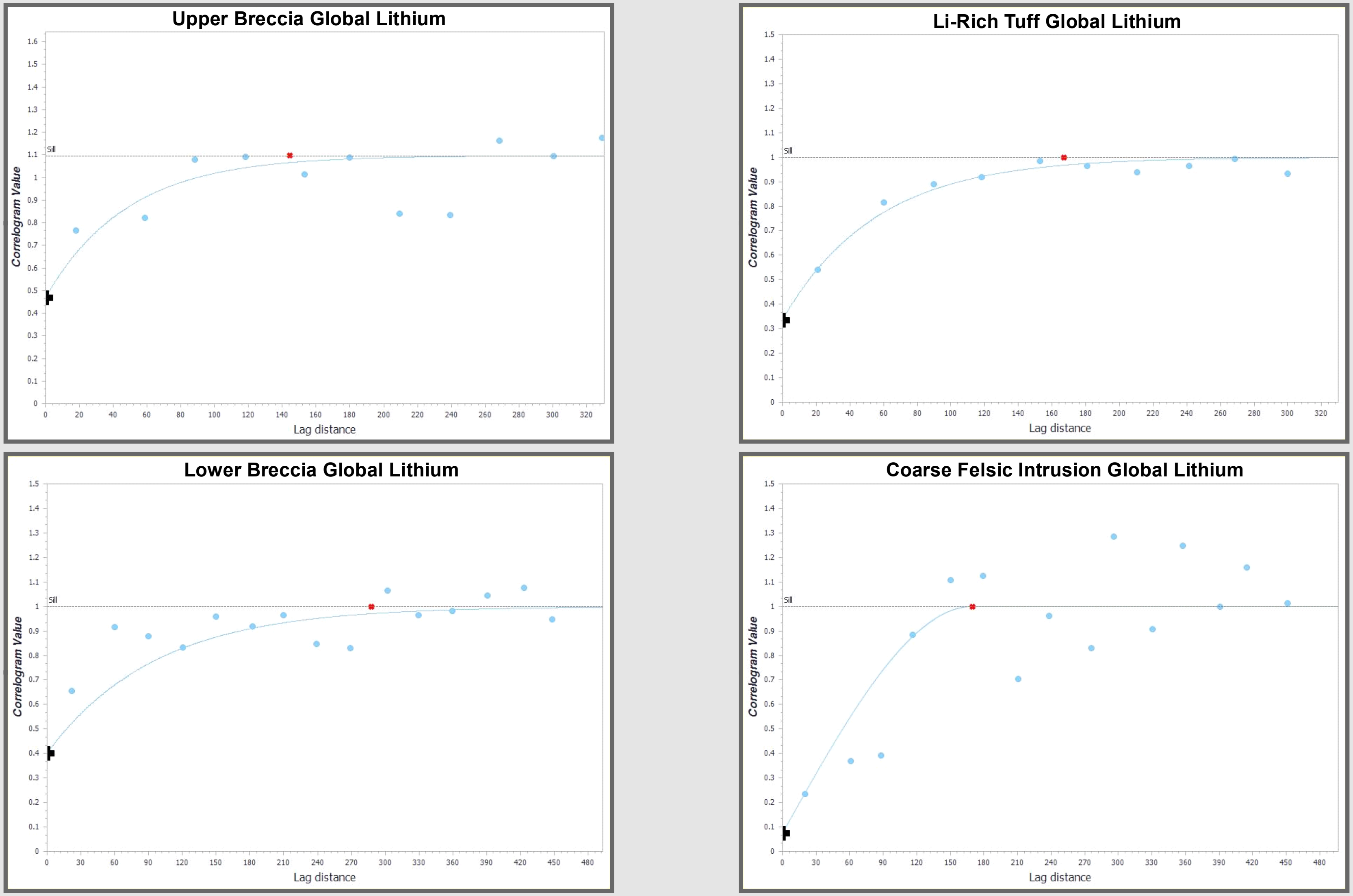
Global multi-directional (30° increment) semi-variograms were generated from the 1m composite samples within the four (4) separate lithium mineralized zones as shown on Figure 14-6, mineralized zones semi-variograms. The semi-variogram shown in Figure 14-7, Global Lithium Semi-variogram, represents the combined variances at 30° increments for all lithium mineralized zones. The maximum global range to sill distance is approximately 250 m. The semi-variograms shown in Figure 14-6 and 14-7 were used to guide the grade estimation approach and resource classification.



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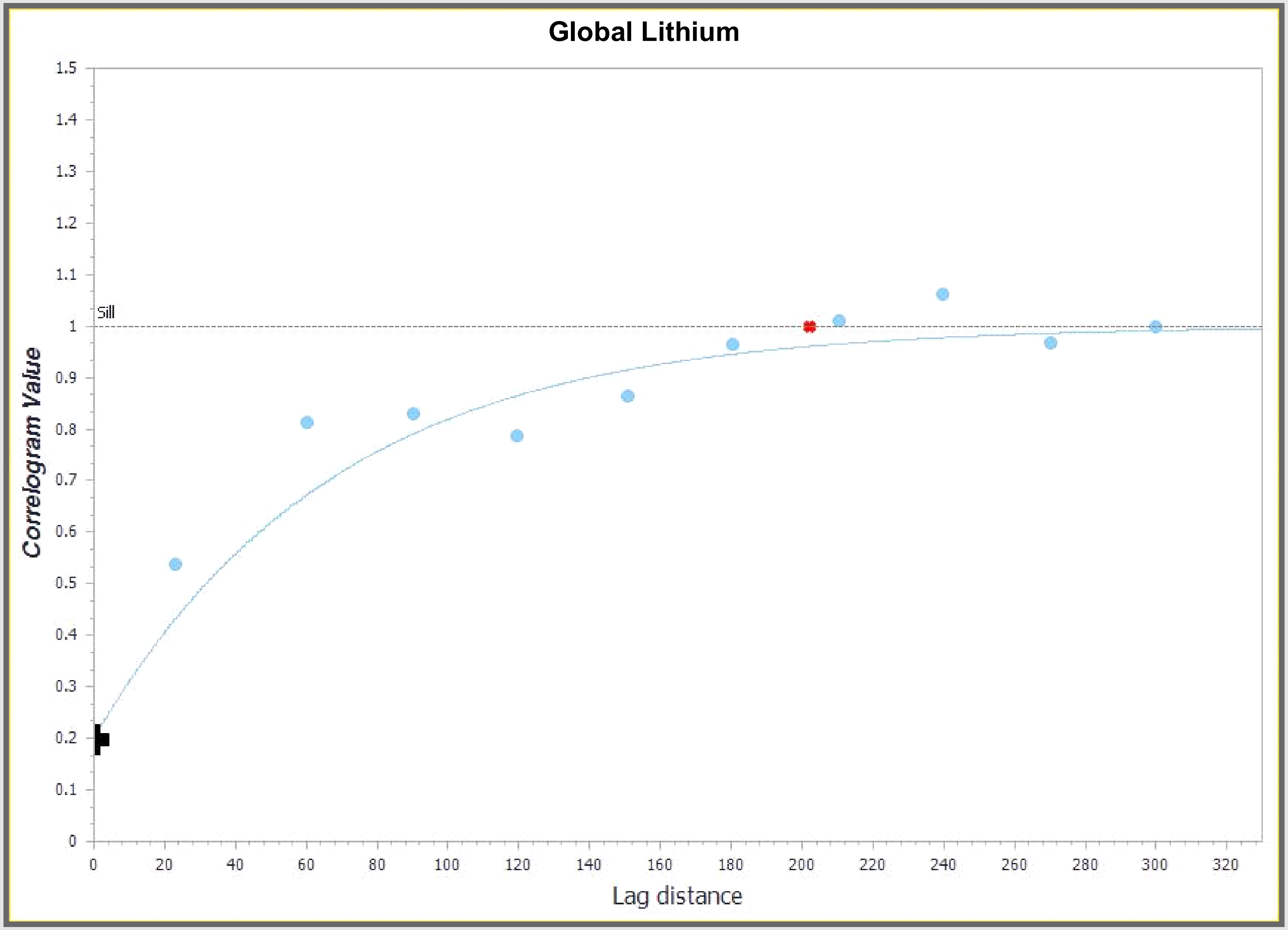
Mineralized Zones Semi-Variograms

Figure 14-6

DRAWN BY: M.B. CHK'D BY: M.K. DATE: 23/ 12/ 13	Project Location: Puno District, Peru Client: American Lithium Corp. Project: 210223585

U:\210223585\4. Technical Report\Figures\MXD\Fig_14_6_MineralZone_SemiVario_Dec12.mxd Revised: 2023-12-13 By: jkester



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Global Lithium Semi-Variogram

Figure 14-7

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CHK'D BY: M.K.
DATE: 23/ 12/ 14

Project Location: Puno District, Peru
Client: American Lithium Corp.
Project: 210223585

U:\210223585\4. Technical Report\Figures\MXD\Fig_14_7_Global_Li_SemiVario_Dec12.mxd Revised: 2023-12-14 By: jkester

Observation of the lithium grade profiles from samples taken within the mineralized zones show separate concentrations of dissipated lithium ranging from around 400 ppm to more than 5,000 ppm. Correlation of lithium grade intervals to individual lithological units was not possible within the mineralized zones, as these grade intervals were observed to be more lens-like as opposed to continuous beds. However, grades within the LRT zone were observed to be more continuous as compares to the other mineralized zones, and having the consistent highest grades, > 4,000 ppm Li.

Broad intervals of high and low grade were modelled by limiting the number of composites per block estimate and using the UBX-LRT Li volcanic contact as a relative elevation surface to account for fault offsets.

14.5.6 Density

In situ densities were determined based on the mineralogical composition of the lithologies on the Property. Earlier exploration by Plateau Energy analyzed eight field samples using a pycnometer, resulting in an average density of 2.4 t/m^3 (Riordan et al., 2020). The dominant lithology on the Property, volcanic breccia, and tuff, were assigned a fixed density of 2.4 g/cm^3. The basement lithology, CFI, was assigned a fixed specific gravity of 2.7 g/ cm^3 for resource calculations based on documented densities for analogous rock types, notably andesite at 2.8 g/cm^3 and granite between 2.65 g/cm^3 and 2.75 g/cm^3 (www.geologyscience.com).

14.5.7 Model Build

The procedures followed in building the resource model are outlined below:

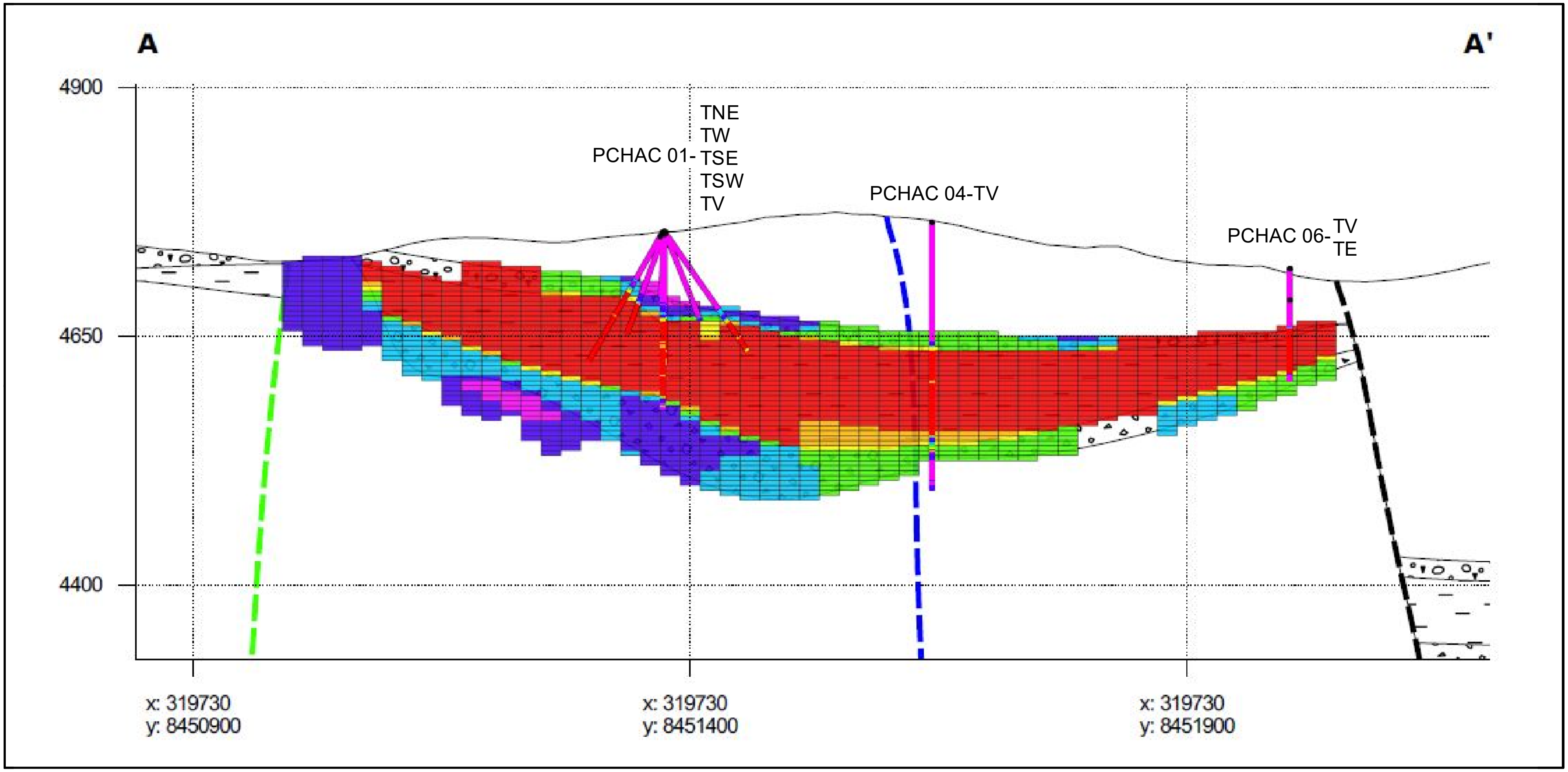
- Topography was coded as a block percent using a wireframe generated from LiDAR data
- The four mineralized zone solids (UB, LRT, LB, and CFI) were coded into blocks as a percentage item and zone item.
- Regular 1 m composites from within the mineralized zone were estimated into mineralized zone blocks using an inverse distance squared (IDW^2) algorithm and isotropic search.
- The maximum range for metal grade (Li, Cs, K and Rb) estimates for resource determination was set at 600 m using observation of semi-variogram analyses of the lithium grade data as a guide.
- Prior to estimation select metal grade outliers were capped as shown in Table 14.3.
- The UBX-LRT contact was used as a relative elevation surface to trend grade estimates across fault offsets.
- Maximum number of samples for block estimates was set to the nearest twenty (20) samples with a maximum of fifteen (15) samples per hole to simulate the grade trends as observed from drill hole records.
- Mineralized zone blocks UBX, LRT and LBX that are within 250 m of nearest valid samples were tagged as inferred, 160 m indicated, and 80 m measured. The mineralized CFI blocks that are within 160 m of nearest valid samples were tagged as inferred, 80 m indicated, and 40 m measured. These resource classification zones were further modified to account for local geologic complexity.
- Model grade estimates were validated against input drill hole grades using cross-sections and swath plots through the block model.

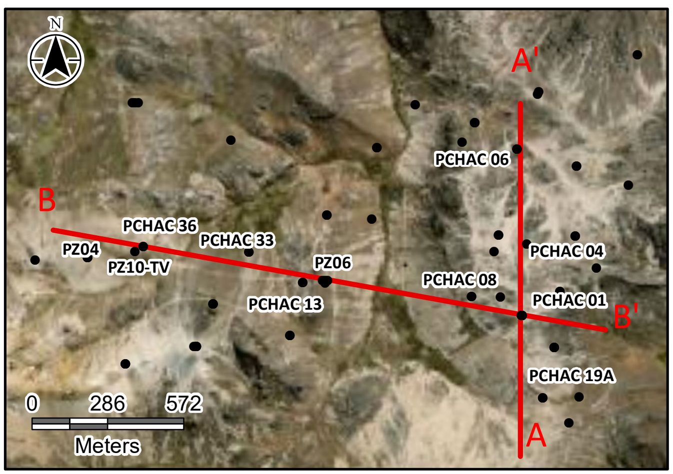
Model estimation parameters are summarized in Table 14.4.

Table 14.4 Model Grade Estimation Parameters

Maximum Search		No. Composites		
Direction	**Range (m)**	**Minimum**	**Maximum**	**Maximum per hole**
East	600	3	20	15
North	600	3	20	15
Vertical	600	3	20	15

Figures 14-8 and 14-9 illustrate the lithium grade distribution along the same cross-section lines as shown above in Section 7 (A-A' and B-B') through the mineralized zone in the resource block model.





Lithologic Units

- Upper Rhyolite
- Upper Breccia
- Lithium Rich Tuff
- Lower Breccia
- Coarse Felsic Intrusion
- Drill Hole Collar
- Cross Section Line

Fault System

- NW1
- NW2
- NW3

Lithium (ppm)

- ≤ 600
- ≤ 1100
- ≤ 1600
- ≤ 2100
- ≤ 2600
- ≤ 3000
- > 3000

0 125 250
Meters

Notes
1. Coordinate System: WGS 1984 UTM Zone 19S
2. Basemap Source: Esri, Maxar, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community

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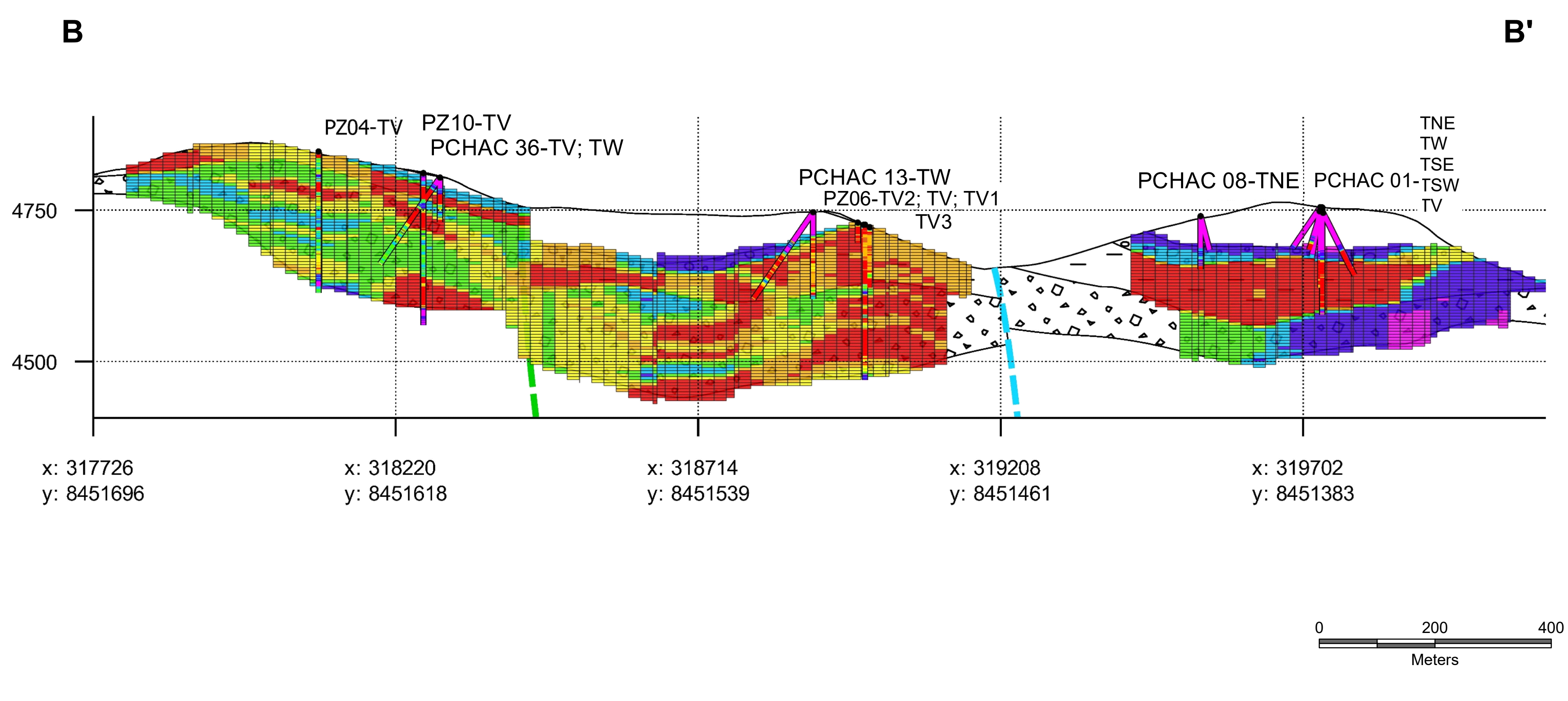
TECHNICAL REPORT FALCHANI PROPERTY

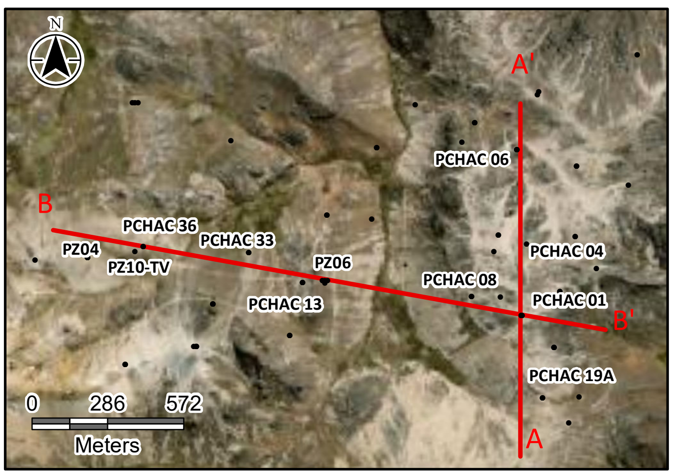
Resource Block Model
Cross Section A-A'

Figure 14-8

DRAWN BY: M.B.
CHK'D BY: M.K.
DATE: 23/ 12/ 14

Project Location: Puno District, Peru
Client: American Lithium Corp.
Project: 210223585





Lithologic Units

- Upper Rhyolite
- Upper Breccia
- Lithium Rich Tuff
- Lower Breccia
- Coarse Felsic Intrusion
- Drill Hole Collar
- Cross Section Line

Fault System

- NW5
- Valley Fault

Lithium (ppm)

- ≤ 600
- ≤ 1100
- ≤ 1600
- ≤ 2100
- ≤ 2600
- ≤ 3000
- > 3000

Notes
1. Coordinate System: WGS 1984 UTM Zone 19S
2. Basemap Source: Esri, Maxar, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community

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Resource Block Model
Cross Section B-B'

Figure 14-9

DRAWN BY: M.B.
CHK'D BY: M.K.
DATE: 23/ 12/ 13

Project Location: Puno District, Peru
Client: American Lithium Corp.
Project: 210223585

14.6 Assessment of Reasonable Prospects for Economic Extraction

A base case lithium resource cut-off grade has been calculated based on the economics of a medium size (100 Mtpa) run-of-mine (ROM) surface mining operation. Processing of the mineralized material would be onsite extracting lithium from volcanic tuffs, volcanic breccias and a coarse felsic intrusion using an acid digestion method. Resources are reported from within an economic pit shell at 45° constant slope using Hexagon Mining's Pseudoflow algorithm. Maximum pit depth is limited to 300 m below surface. No underground mining is considered.

The following mining, processing, royalty, and recovery costs, in US$, were used to derive a base case cut-off grade to produce a lithium carbonate (Li_2CO_3) equivalent product:

- Mining costs US$2.5/tonne;
- Processing costs US$50/tonne;
- General and administration US$1/tonne; and
- Processing recovery of 80%.

Revenue from a lithium carbonate product is estimated to be US$20,000/tonne for the cutoff grade calculation. Using the above inputs and Li_2CO_3:Li ratio of 5.32, a base case cut-off grade for lithium is estimated to be 600 ppm,. The base case cut-off grade of 600 ppm lithium is lower than the previous (Riordan et al., 2020) Mineral Resource Estimate cut-off grade of 1000 ppm lithium, mostly due to an increase in the assumed lithium carbonate price compared to the prior MRE.

14.7 Lithium Resource Estimates

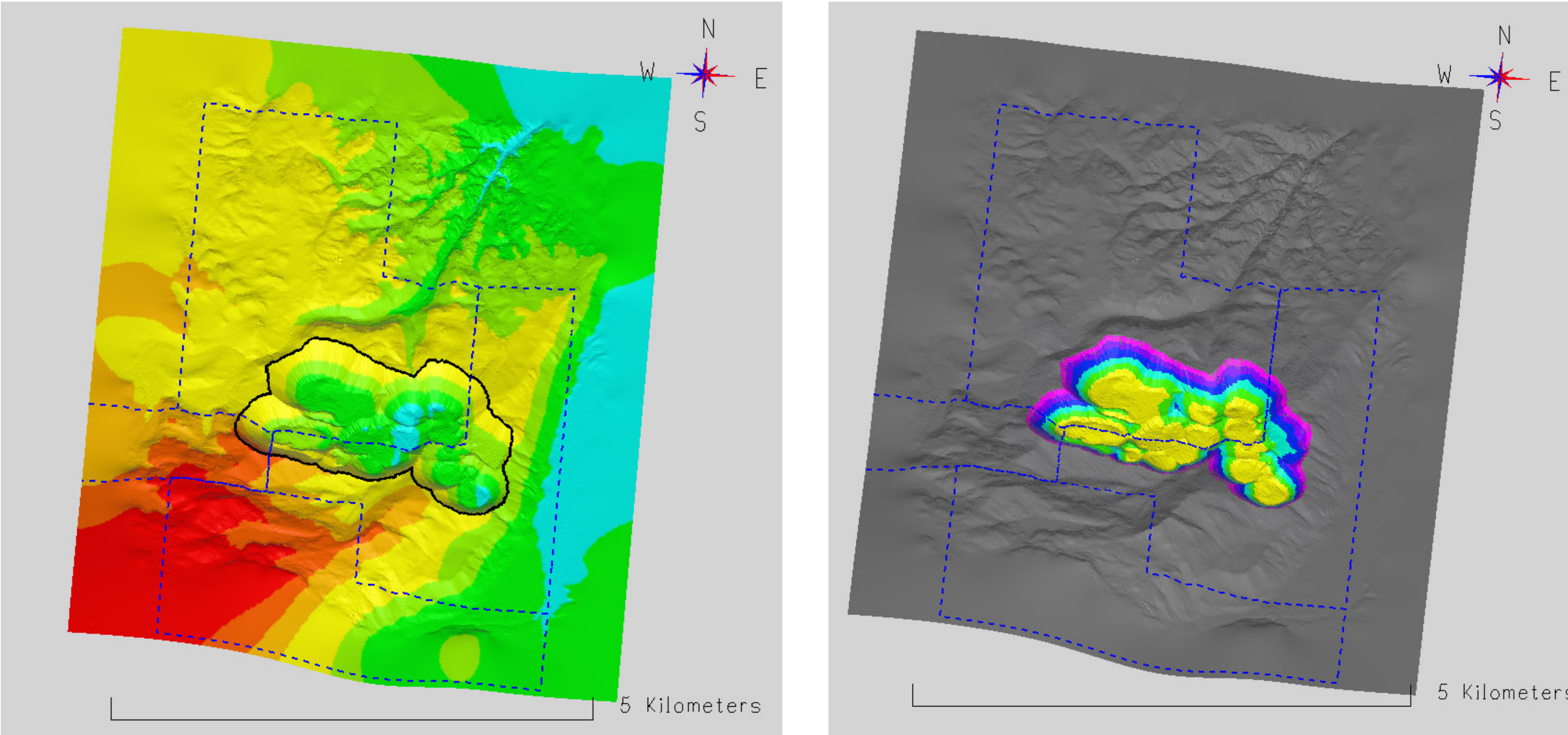
Lithium resources are contained within the UBX, LRT, LBX and CFI basement. The mineralized zones are further constrained within nine (9) fault blocks that truncate at two (2) north-south trending high angle normal faults (Valley Fault and East Fault) and the resource is limited to the east by faults NW1 and NW3, shown on Figure 14-2.The CFI zone true depth has not been well defined by drilling and is limited by the generated pit depth of 300 m below surface. Mineral resources for the upper three zones (UBX, LRT and LBX) are classified by distance from nearest valid drill hole sample up to a maximum distance of 250 m for inferred, 160 m indicated, and 80 m measured. Mineral resources for the CFI are within 160 m for inferred, 80 m indicated, and 40 m measured.

The lithium mineral resource estimates are presented in Table 14.5 in metric units. The resource estimates are contained within an economic pit shell at constant 45° pit slope to a maximum vertical depth of 300 m below surface. The crest of the pit shell and pit shell depth is shown on Figure 14-10, Economic Pit Shell. The generalized mineral resource classification map is shown in Figure 14-11. Lithium resources are presented for a range of cutoff grades to a maximum of 5,000 ppm lithium. The base case lithium resource estimates are highlighted in bold type in Table 14.5. All lithium resources on the Falchani Property are surface mineable at a stripping ratio of 0.4 BCM/metric tonne at the base case cutoff grade of 600 ppm lithium. The effective date of the lithium resource estimate is October 31, 2023.

Table 14.5 Mineral Resource Estimate effective October 31 2023

Cutoff	Volume	Tonnes	Li	Metric Tonnes (Mt)			Cs	K	Rb
Li (ppm)	(Mm3)	(Mt)	(ppm)	Li	Li2CO3	LiOH.H20	(ppm)	(%)	(ppm)
Measured									
600	29	69	2,792	0.19	1.01	1.15	631	2.74	1,171
800	28	68	2,832	0.19	1.01	1.15	641	2.72	1,194
1,000	27	65	2,915	0.19	1.01	1.15	647	2.71	1,208
1,200	25	61	3,024	0.18	0.96	1.09	616	2.74	1,228
1,400	24	57	3,142	0.18	0.96	1.09	547	2.78	1,250
Indicated									
600	156	378	2,251	0.85	4.52	5.14	1,039	2.92	1,055
800	148	357	2,342	0.84	4.47	5.08	1,058	2.90	1,070
1,000	136	327	2,472	0.81	4.31	4.90	1,095	2.87	1,104
1,200	129	310	2,549	0.79	4.20	4.78	1,086	2.86	1,146
1,400	120	288	2,646	0.76	4.04	4.60	1,041	2.88	1,166
Measured plus Indicated									
600	185	447	2,327	1.04	5.53	6.29	976	2.90	1,072
800	176	425	2,424	1.03	5.48	6.23	991	2.87	1,090
1,000	163	392	2,551	1.00	5.32	6.05	1,021	2.84	1,121
1,200	154	371	2,615	0.97	5.16	5.87	1,009	2.84	1,160
1,400	144	345	2,725	0.94	5.00	5.69	960	2.86	1,180
Inferred									
600	198	506	1,481	0.75	3.99	4.54	778	3.31	736
800	174	443	1,597	0.71	3.78	4.30	837	3.24	762
1,000	138	348	1,785	0.62	3.30	3.75	886	3.18	796
1,200	110	276	1,961	0.54	2.87	3.27	942	3.10	850
1,400	82	201	2,211	0.44	2.34	2.66	1,022	3.01	926

- CIM definitions are followed for classification of Mineral Resource.
- Mineral Resource surface pit extent has been estimated using a lithium carbonate price of US20,000 US$/tonne and mining cost of US$3.00 per tonne, a lithium recovery of 90%, fixed density of 2.40 g/cm3
- Conversions: 1 metric tonne = 1.102 short tons, metric m3 = 1.308 yd3, Li2CO3:Li ratio = 5.32, LiOH.H2O:Li ratio =6.05
- Totals may not represent the sum of the parts due to rounding. Mark, P.G. and Derek Loveday, P. Geo. Of Stantec Consulting Services Inc. in conformity with CIM "Estimation of Mineral Resource and Mineral Reserves Best Practices" guidelines and are reported in accordance with the Canadian Securities Administrators NI 43-101. Mineral resources are not mineral reserves and do not have demonstrated economic viability. There is no certainty that any mineral resource will be converted into mineral reserve.



Pit Shell Elevation

Pit Shell Depth

Legend

Concessions

Pit Crest

Elevation (m)

<4000
4000
4100
4200
4300
4400
4500
4600
4700
4800
4900
5000

Depth (m)

0
50
100
150
200
250
300
350
400

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Economic Pit Shell

Figure 14-10

DRAWN BY: M.B.
CHK'D BY: M.K.
DATE: 23/ 12/ 13

Project Location: Puno District, Peru
Client: American Lithium Corp.
Project: 210223585

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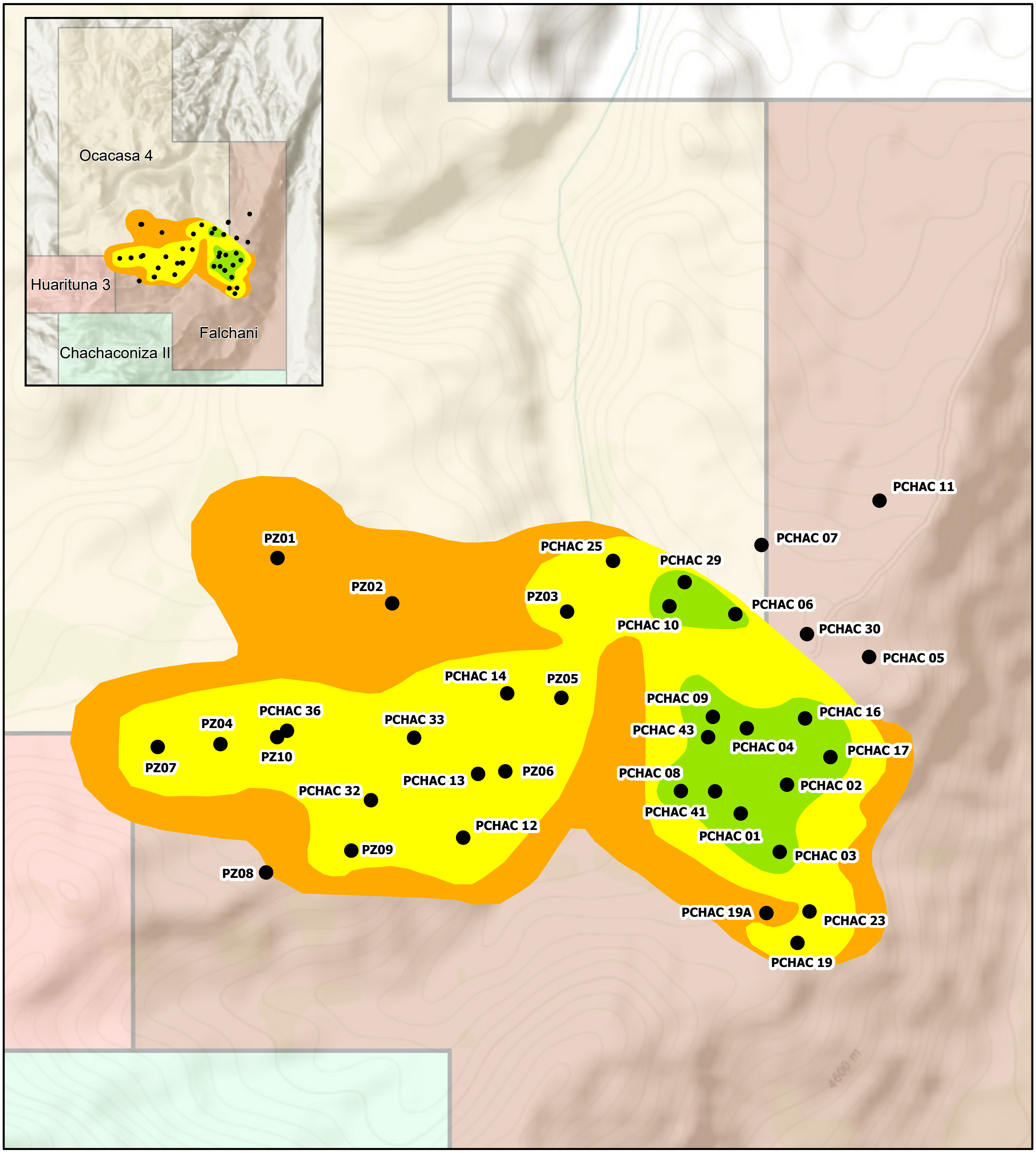

Legend

• Drilling Platform

Concessions

- Chachaconiza II
- Falchani
- Huarituna 3
- Ocacasa 4

Resource Classification

- Measured
- Indicated
- Inferred

N

0 180 360
Meters

0 1,500
Feet

Scale 1:18,000
(At original document size of 8.5x11)

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Generalized Resource Classification Map

Figure 14-11

DRAWN BY: J.K.
CHK'D BY: M.K.
DATE: 2023/ Dec/ 14

Project Location: Puno District, Peru
Client: American Lithium Corp.
Project: 210223585

Notes
1. Coordinate System: WGS 1984 UTM Zone 19S
2. Data Source: American Lithium Corp. Basemap: World Topographic/Hillshade Map: Esri, HERE, Garmin, Foursquare, METI/NASA, USGS, NGA

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14.8 Potential Risks

The accuracy of resource estimates is, in part, a function of the quality and quantity of available data and of engineering and geological interpretation and judgment. Given the data available at the time; the estimates presented herein are considered reasonable. However, they should be accepted with the understanding that additional data and analysis available after the date of the estimates may necessitate revision. These revisions may be material.

Mineral resources are not mineral reserves and there is no assurance that any mineral resources will ultimately be reclassified as Proven or Probable reserves. Mineral resources which are not mineral reserves do not have demonstrated economic viability.

Potential risks that may impact accuracy of the mineral resource estimates are:

- The resource is limited to within two E-W fault blocks east of the Valley Fault as described in Section 14.4.3 that may shift location given further exploration. Should new supporting data support a significant shift in the fault locations this may have a material impact on the resource estimates.
- The CFI basement and the other volcanics around the extremities of the Property are only recognized from 28 drillholes. Future exploration drilling in these areas of the Property may show these intrusions and other volcanics extending into the Property below surface. This may have a material impact on the resource estimates in these regions of the deposit.
- Metallurgical test currently under the control of DRA may indicate that the input costs for the practical extraction of lithium to be higher than anticipated. Since processing costs are a significant component of lithium carbonate (or lithium hydroxide monohydrate) production, the lithium cutoff grade may be higher than the base case cutoff grade of 600 ppm used for the lithium resource estimates.
- Given the uniform densities applied to the mineralized zones, Stantec believes the density to be adequate for resource estimation, however, additional density data would support more accurate mineral resource tonnage estimates.

There is potential for elevated uranium concentrations on Falchani based on proximity of the deposit to the Macusani Yellowcake project located 5-25 km east and north of the property.

15.0 MINERAL RESERVE ESTIMATES

This Technical Report does not include an estimate of reserves.

16.0 MINING METHODS

There is no information for this section of the Technical Report as the Property is not presently producing and is not yet under development.

17.0 RECOVERY METHODS

There is no information for this section of the Technical Report as the Property is not presently producing and is not yet under development.

18.0 PROJECT INFRASTRUCTURE

There is no information for this section of the Technical Report as the Property and is not yet under development.

19.0 MARKETS AND CONTRACTS

There is no information for this section of the Technical Report as the Property is not presently producing and is not yet under development.

20.0 ENVIRONMENTAL STUDIES, PERMITTING AND SOCIAL OR COMMUNITY IMPACT

There is no information for this section of the Technical Report as the Property is not presently producing and is not yet under development.

F

21.0 CAPITAL AND OPERATING COSTS

There is no information for this section of the Technical Report as the Property is not presently producing and is not yet under development.

22.0 ECONOMIC ANALYSIS

There is no information for this section of the Technical Report as the Property is not presently producing and is not yet under development.

23.0 ADJACENT PROPERTIES

The Falchani Property is surrounded by other American Lithium controlled concessions as part of the MPA. Other explorers of significance within the region are Fission 3.0 Energy Corporation (Fission), whose portfolio of properties in the Macusani area resulted from a spin-out from Strathmore Minerals in 2007 (Fission Energy Corporation, 2010). In April 2013, Fission announced the arrangement whereby Denison Mines Corporation acquired all the outstanding common shares of Fission and the spin-out of certain assets into a new exploration company, Fission Uranium Corporation. In November 2013, certain properties and assets of Fission Uranium, including the Macusani, Peru property, became properties and assets of Fission 3.0 Corp. Nine claim blocks encompassing 51km2 were held in the Macusani area (Fission 3.0 Uranium Corporation, 201420) (Riordan et al.,2020). Fission 3.0 has subsequently relinquished these concessions after failing to pay their good standing fees in June 2021.

The Qualified Person has not verified the information associated with the adjacent concessions; the information associated with these adjacent concessions may not be indicative of the mineralization on the Property.

24.0 OTHER RELEVANT DATA AND INFORMATION

All relevant information is included in this report.

25.0 INTERPRETATION AND CONCLUSIONS

Exploration of the Falchani property has been successful in identifying a mineral resource of lithium and ancillary cesium, rubidium, and potassium. The Falchani lithium deposit is unique in its host rock and mineralization. The lithium occurrences are hosted in an ash-flow Lithium Rich Tuff (LRT) and volcanoclastic breccias (Upper and Lower Breccia, UBX and LBX, respectively) that bound the LRT. Lithium mineralization is also observed in the basal Coarse Felsic Intrusion (CFI) which is interpreted to be a stratiform felsic intrusion underlying the above lithium host rocks.

Analytical results from the Falchani drilling campaigns indicate a significant high grade lithium distribution throughout the mineralized zones, with the LRT having consistent high grades, > 4,000 ppm Li. The base case cut-off grade of lithium is 600 ppm for the Mineral Resource Estimate. The associated average concentrations of cesium (Cs), potassium (K) and Rubidium (Rb) indicate the potential of these analytes to be produced as a biproduct from the processing of lithium.

The structural interpretation of the property consists of nine (9) fault blocks derived from eight (8) faults, two (2) trending N-S, and six (6) NW-SW faults that truncate at the N-S faults. The mineral resource has been interpreted to be constrained in the east by faulting due to the distance from drilling data and observed offsets in drill hole logs. The average thickness of the UBX and LRT mineralized zones are similar in both east (30 m and 60 m respectively) and west fault blocks (20 m and 60 m respectively). The LBX mineralized zone has a true thickness is significantly larger in the west fault blocks (90 m) compared to the east (50 m). The CFI basement zone is observed to a depth of 407 m in drillhole PZ01-TV3, however the true thickness is not constrained from drilling as the unit extends beyond the model resource at depth. The CFI zone mineral resources have been limited by the generated pit depth of 300 m below surface.

Sample collection, analyses and QAQC of the drilling completed at Falchani are well managed and meet industry standards. Mineral resource estimates include 67 drill holes from two drilling campaigns, 2017-18 and 2022-23. The updated MRE is 5.53 Mt LCE (447 Mt at a Li grade of 2,327 ppm) with 1.01 Mt LCE in the measured category and 4.52 Mt LCE as indicated. Inferred resources were calculated at 3.99 Mt LCE. The base case Li cut-off has been lowered to 600 ppm Li from previous 1,000 ppm cutoff as a result of strong project economics specifically updated operating costs and a $20,000/tonne (“t”) LC selling price. The updated mineral resource is significantly higher than the previous MRE at 0.96 Mt LCE in the indicated category (Riordan et al., 2020; Nupen, 2019). The increased size and grade of the resource support the potential for long term production at Falchani.

Potential risks that may impact accuracy of the mineral resource estimates are:

- The resource is limited to within two E-W fault blocks east of the Valley Fault as described in Section 14.4.3 that may shift location given further exploration. Should new supporting data support a significant shift in the fault locations this may have a material impact on the resource estimates.
- The CFI basement and the other volcanics around the extremities of the Property are only recognized from 28 drillholes. Future exploration drilling in these areas of the Property may show these intrusions and other volcanics extending into the Property below surface. This may have a material impact on the resource estimates in these regions of the deposit.
- Metallurgical test currently under the control of DRA may indicate that the input costs for the practical extraction of lithium to be higher than anticipated. Since processing costs are a significant component of lithium carbonate (or lithium hydroxide monohydrate) production, the lithium cutoff grade may be higher than the base case cutoff grade of 600 ppm used for the lithium resource estimates.

- Given the uniform densities applied to the mineralized zones, Stantec believes the density to be adequate for resource estimation, however, additional density data would support more accurate mineral resource tonnage estimates.

There is potential for elevated uranium concentrations on Falchani based on proximity of the deposit to the Macusani Yellowcake project located 5-25 km east and north of the property.

26.0 RECOMMENDATIONS

The Falchani mineral resource estimation has relied on exploration drilling results. The following development path is recommended for the Falchani Project.

Phase 1 Work Program Surface Mapping

Surface mapping of the Project area will provide additional information that will enhance the understanding of the structural geology and faulting within the property. This information will greatly improve the accuracy of the current geologic model and resource estimates. Structural mapping will validate and focus the interpolated faults in the geologic model. The Authors site inspection of the property identified areas of exposed rhyolite outcrops on the Property that could be mapped in detail. Costs for a geologist and mapping program is listed in Table 26.1 below.

Table 26.1 Phase 1 Surface Mapping Program Costs

Activity	Unit costs (US$)	No.	Cost (US$)
Surface Mapping	1,000/day	14	14,000
Grab Sample Assay	50/sample	120	6,000
Structural modeling	1,200/day	8	9,600
		Total	29,600

Phase 2 Work Program Infill Drilling and Modeling

The proposed Phase 2 program is not dependent on the successful results of the phase 1 program above. For Phase 2 an infill drilling program of approximately 2,500 m is recommended to improve the mineral resource confidence. Estimated costs for the Phase 2 program is outlined in Table 26.2 below.

Table 26.2 Phase 2 Infill Drilling Costs

Activity	Unit costs (US$)	No.	Cost (US$)
Core Drilling	200/m	2,500	500,000
Core Sample Assay	50/sample	2,000	100,000
Resource Modeling	n/a	n/a	50,000
		Total	650,000

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