



**NI 43-101 TECHNICAL REPORT  
EXPLORATION RESULTS FOR THE  
DEER MUSK EAST LITHIUM PROPERTY**

**CLAYTON VALLEY  
ESMERALDA COUNTY  
NEVADA, USA**

**PREPARED ON BEHALF OF  
AMERIWEST LITHIUM INC.**

**PREPARED BY:**

**RAYMOND P. SPANJERS, MS, RPG**

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## Contents

<b>1 Summary</b> .....	<b>6</b>
<b>2 Introduction</b> .....	<b>9</b>
2.1 Introduction and Purpose of Report .....	9
2.2 Terms of Reference .....	9
2.3 Source of Information .....	9
2.4 Units and List of Abbreviations .....	10
<b>3 Reliance on Other Experts</b> .....	<b>10</b>
<b>4 Property Description and Location</b> .....	<b>10</b>
4.1 Property Description .....	10
4.2 Location.....	11
4.3 Potential Conflict with Existing Lode Claims.....	13
4.4 Water Rights.....	15
<b>5 Accessibility, Climate, Local Resources, Infrastructure and Physiography</b> .....	<b>16</b>
5.1 Accessibility .....	16
5.2 Climate and Vegetation .....	16
5.3 Local Resources.....	17
5.4 Infrastructure .....	18
5.5 Physiography.....	19
5.5.1 Clayton Valley Physiography.....	19
5.5.2 Deer Musk East Physiography .....	19
<b>6 History</b> .....	<b>22</b>
<b>7 Geological Setting Mineralization</b> .....	<b>22</b>
7.1 Geology .....	22
7.1.1 Regional Geology .....	22
7.1.2 DME Surface Geology .....	24
7.1.2.1 Qa Unit.....	24
7.1.2.2 Qia Unit .....	24
7.1.2.3 Tst Unit.....	24
7.2 Mineralization .....	27
7.2.1 Brine Mineralization.....	27

7.2.2 Clay Mineralization.....	28
<b>8 Deposit Types.....</b>	<b>29</b>
8.1 Continental Brines .....	29
8.2 Lithium Clays.....	30
<b>9 Exploration .....</b>	<b>30</b>
9.1 Soil Survey .....	30
9.1.1 Field Methods .....	30
9.1.2 Results.....	31
9.2 Rock Samples .....	33
9.2.1 Field Methods .....	33
9.2.2 Results.....	33
9.3 Geophysical Studies .....	33
9.3.1 Bouguer Gravity Survey .....	34
9.3.1.1 Field Methods .....	34
9.3.1.2 Results .....	35
9.3.2 Seismic Reflection Survey.....	35
9.3.2.1 Field Methods .....	35
9.3.2.2 Results .....	39
9.3.3 Transient Electro-Magnetic Survey (TEM).....	39
9.3.3.1 Field Methods .....	39
9.3.3.2 Results .....	40
9.3.4 Magnetotelluric Survey (MT) .....	41
9.3.4.1 Field Methods .....	41
9.3.4.2 Results .....	44
<b>10 Drilling.....</b>	<b>45</b>
<b>11 Sample Preparation, Analyses and Security .....</b>	<b>45</b>
11.1 Sample Preparation .....	45
11.2 Analyses and Security .....	45
<b>12 Data Verification .....</b>	<b>45</b>
<b>13 Mineral Processing and Metallurgical Testing .....</b>	<b>45</b>
<b>14 Mineral Resource Estimates .....</b>	<b>45</b>
<b>15 Adjacent Properties .....</b>	<b>46</b>

15.1 Albemarle Corporation’s Clayton Valley Brine Operation .....	46
15.2 Cypress Development’s Clayton Valley Lithium Project .....	47
15.3 Spearmint Resources’ Clayton Valley Lithium Project.....	48
15.4 Noram Lithium’s Zeus Lithium Project.....	48
15.5 Pure Energy’s Clayton Valley Lithium Project .....	48
15.6 Marquee Resources’ Clayton Valley Project .....	48
<b>16 Other Relevant Data and Information .....</b>	<b>49</b>
<b>17 Interpretation and Conclusions .....</b>	<b>49</b>
17.1 Soil and Rock Data .....	49
17.2 Gravity Data.....	49
17.3 Seismic Data .....	49
17.4 TEM and MT Data .....	50
<b>18 Recommendations .....</b>	<b>50</b>
<b>19 References.....</b>	<b>53</b>

## List of Figures

Figure 1 Deer Musk East Property Location, Nevada, USA.....	11
Figure 2. Updated Deer Musk East Claim Locations in Clayton Valley, Nevada.....	12
Figure 3. DME Placer Claims Overlapping with Adjacent Lode Claims.....	15
Figure 4. Average Weather Data for Silver Peak, Nevada (www.city-data.com).....	17
Figure 5 Silver Peak Electrical Substation.....	18
Figure 6 Physiographic Map of Clayton Valley and Environs (Zampirro, 2005). .....	20
Figure 7. Drone Photograph of the Valley Floor and Core Uplift Zones on DME Property. ....	21
Figure 8. Drone Photo of Typical Alluvial Fan on DME Property .....	21
Figure 9. Geologic Map of Clayton Valley and Surrounding Area (Zampirro, 2005).....	23
Figure 10. Preliminary Surficial Geologic Map of Selected Parts of Clayton Valley and the Northwest Montezuma Range Piedmont, Esmeralda County, Nevada. (Foy et al.,2016). .....	25
Figure 11. Surface geology of the DME Project (modified after Extrados, 2022). .....	26
Figure 12. Tertiary (Tst) outcrops on DME claims. ....	27
Figure 13. Continental Lithium Brine Formation (L. Munk, S. Hynek, D. Bradley, D. Boutt, K. ...	28
Figure 14. DME Soil and Rock Chip Sample Locations (Watson, 2021).....	31
Figure 15. Gravity, Seismic, TEM and MT Station Locations on the SME claims .....	34
Figure 16. Bouguer Gravity Map of DME Property (Watkins, 2021 modified after Olson, 2021). .....	35
Figure 17. Seismic Line 1 on DME property (Olsen, 2021).....	37

Figure 18. Seismic Line 2 on DME property (Olsen, 2021).....	37
Figure 19. Seismic Line 3 on DME property (Olsen, 2021).....	38
Figure 20. Seismic Line 4 Profile on DME property (Olsen, 2021).....	38
Figure 21. TEM Profile on DME Property (Olsen, 2021).....	40
Figure 22. DME Magnetotelluric Survey Location (Doerner, 2022).....	41
Figure 23. Electric Field (Telluric) Configuration with antennas deployed (not to scale). .....	42
Figure 24. Line 4169100N 2D Inversion Resistivity Section (Doerner, 2022). .....	42
Figure 25. Line 4169900N 2D Inversion Resistivity Section (Doerner, 2022). .....	43
Figure 26. Line 4170700N 2D inversion resistivity section (Doerner, 2022).....	43
Figure 27. Line 4171500N Inversion Resistivity Section (Doerner 2022). .....	44
Figure 28. Line 4172300N 2D inversion resistivity section (Doerner, 2022).....	44
Figure 29. Adjacent Properties, Deer Musk East Lithium Project .....	47
Figure 30. Proposed Phase 1 Geophysical Lines.....	52

## List of Tables

Table 1. List of Units and Abbreviations .....	10
Table 2. Deer Musk East Claim Information (BLM LR 2000 website, 2021) .....	11
Table 3. Soil and Rock Sample Analyses (Watson, 2021) .....	32

# 1 Summary

Ameriwest Lithium Inc. (“Ameriwest”) is a publicly traded lithium exploration company located in Vancouver, B.C. and is listed on the Canadian Securities Exchange (CSE: AWLI). Ameriwest’s Deer Musk East (DME) lithium project consists of 371 unpatented placer claims that encompass a total area of 2,274 ha (7,378 acres) of public land, in southern Clayton Valley, Nevada, USA controlled by the Bureau of Land Management federal agency. The property has potential to host both lithium brine and lithium sedimentary deposits.

The property is located approximately five miles southeast of Albemarle Corporation’s (NYSE: ALB) (“Albemarle”) Silver Peak Operation where lithium brines are extracted and processed in evaporation ponds to produce a variety of lithium chemicals. The Silver Peak Operation is currently the only operating lithium mine in North America and has been in operation since 1967. Pure Energy Minerals (TSXV: PE), whose project is west of DME, is constructing a pilot plant to evaluate brine recovery. Note that the location of DME in the vicinity to these properties does not guarantee exploration success for discovery of lithium brine deposits on the DME property.

Noram Ventures Inc. (TSXV: NRM) (“Noram”), Cypress Development Corporation (TSXV: CYP) (“Cypress”), and Spearmint Resources Inc. (CSE: SPMT) (“Spearmint”) have all reported sedimentary mineral resources in the Clayton Valley. These deposits are contiguous along strike to the north of DME. Note that the vicinity of DME to these properties does not guarantee exploration success for the discovery of lithium clay deposits on the DME property.

Clayton Valley is located within the Basin and Range Province in southern Nevada. It is a closed-basin that is fault bounded on the north by the Weepah Hills, the east by Clayton Ridge, the south by the Palmetto Mountains, and the west by the Silver Peak Range and Mineral Ridge. The basin is bounded to the east by a steep normal fault system toward which basin strata thicken (Davis et al., 1986). These basin-filling strata compose the aquifer system which hosts and produces the lithium-rich brine (Zampirro, 2004; Munk et al., 2011).

The north and east parts of Clayton Valley are flanked with Miocene to Pliocene sediments containing multiple primary and reworked volcanic ash deposits within fine-grained clay and silt units. These deposits, mapped primarily to the north, are a part of the Esmeralda Formation, a sedimentary sequence grading from coal-bearing siltstones, sandstones, and conglomerates at the base, to fine-grained tuffaceous lacustrine sediments at the top of the section. Lacustrine deposits, composed primarily of clays and fine-grained sediments with volcanic ash layers, occur on the east side of Clayton Valley described as the Esmeralda Formation by Kunasz (1974) and Davis (1981).

Lithium bearing sediments have been recognized in Clayton Valley for some time in uplifted paleo Miocene Esmeralda Formation lacustrine clays, ash and tuffs (Kunasz, 1974; Morissette, 2012). Lithium values have been reported to range from 496-4,950 ppm (Morissette, 2012). Recent exploration work by other companies has confirmed large volumes of lithium-bearing sediments on the east flank of the valley.

DME is located in the southeast lower flank of Clayton Valley and lies south, and along strike, of exposed mudstone, claystone, and welded tuffs of the Miocene Esmeralda Formation. The area is characterized by valley floor sediments to the east, an uplifted central core and large unsorted alluvial deposits on the west. Evidence suggests a small normally faulted and rotated crustal block has offset the Esmeralda Formation and it is believed the Formation exists at depth on the DME property.

Numerous exploration activities were completed on the DME project during 2021 and 2022. Field mapping identified three lithological units: Qa, an active depositional zone, Qia, an inactive unit characterized by desert pavement and Tst, Tertiary lake and airfall deposits of the Esmeralda Formation. Thirty-eight soil samples for the Qa and Qia units, and 29 rock samples from the Tst unit showed lithium values of 43 ppm – 134 ppm (average 65 ppm) and 29 ppm – 220 ppm (average 86), respectively. The sampling was inconclusive in delineating specific lithium targets on surface but confirmed the presence of lithium on the property.

Geophysical surveys, which included gravity, seismic reflection, transient-electromagnetic (TEM) and magnetotelluric (MT), were encouraging. The gravity survey identified a gravity high saddle, interpreted to be a horst, running through the center of the claims, with a sloping gradient to the west into Clayton Valley and an adjacent closed basin to the east (i.e. grabens to the east and west of the ridge). This gravity low to the east of the horst appears to represent a separate, independent closed basin from the basin to the west where Albemarle and Pure Energy's brine targets are located.

Seismic profile interpretations identified three fault zones on the claims, and several surfaces and boundaries at depth: Alluvium – Upper Tertiary unconformity, bedding within the upper Tertiary unit, base of the upper Tertiary unit and the contact of the Tertiary tuffaceous unit and the deeper pre-tertiary units. The three faults run roughly north-south and appear to bound the graben where the gravity low is located and a horst where the gravity high is located.

The TEM resistivity survey recorded data from seven locations positioned along three lines. The survey confirmed the horst and graben relationship identified from the gravity work and showed potential for high salinity brine ( $\leq 10$  ohm-m) at depth. In particular, the TEM cross section showed potential for brine pooling on the east and west side of the horst identified from the gravity survey.

The MT survey consisted of five lines totaling 8 km (5 mi) in length located over the gravity low. The data interpretation suggests a layering of fresh/surface recharge water (10-90 ohm-m) at depths of 24 m – 48 m (80 ft - 160 ft) and underlying higher salinity brine ( $\leq 10$  ohm-m.) up to 300 ft (100 m) in thickness.

A majority of Ameriwest's unpatented placer mining claims (an estimated 292 of 371 claims partially or fully overlap) are located on federal public lands on which another party, Authium LLC, previously recorded certificates of location for unpatented lode mining claims. Ameriwest believes that any brine and sedimentary lithium clay deposits on Ameriwest's mining claims are properly

located as placer mining claims under US federal law. Ameriwest believes that Authium's claims are improperly staked as lode claims and therefore invalid. Both companies have filed lawsuits against the other which will require the courts to determine the validity of their claims, should a settlement not be reached prior to going to court.

A concern to future development of the DME will be securing water rights. Exploration for lithium in sedimentary or brine deposits, which includes drilling and pump testing, can be performed through temporary discharge permits. Should Ameriwest conduct exploration and ultimately define mineral resources or mineral reserves (note that none are currently defined on the property), the company will have to be concerned about availability of water rights. This can potentially be addressed through acquisition of water rights from other holders, permitting of new water rights (if there is availability at the time), and through selection of technology that minimizes water use and recycles water. Potentially the company could look to option, joint venture, or sell the property to a company that has water rights in the valley.

In summary, work done on the DME property to date shows the property has potential to host both lithium clay and lithium brine deposits in bedded lacustrine sediments that infill the valley where the property is located. Geophysics work outlined what is interpreted to be a horst and graben structural setting with TEM and MT work indicating low resistivity (high conductivity) zones at depth and open to the south.

A 2-phase exploration program is recommended on the DME property to supplement existing data and prepare a drilling program. This should take six months to complete at a cost of \$144,500.



## 2 Introduction

### 2.1 Introduction and Purpose of Report

This report is prepared for Ameriwest Lithium Inc., (“Ameriwest”), a publicly traded lithium exploration company located in Vancouver, BC and listed on the Canadian Securities Exchange under the symbol AWLI. Ameriwest has staked 371 unpatented placer claims, encompassing a total area of approximately 2,274 ha (7,378 acres) of public land, in southern Clayton Valley, Nevada, USA.

The purpose of this Technical Report is to present and discuss the 2021 and 2022 exploration activities conducted since the last Technical Report was completed on the property and to provide recommendations for additional exploration work to evaluate the property. Raymond P. Spanjers, QP, was retained by Ameriwest to prepare this Technical Report on the lithium potential of the DME property and he is responsible for this entire report.

### 2.2 Terms of Reference

This report has been prepared in conformity to National Instrument 43-101 (“NI 43-101”) standards and in accordance with the formatting requirements of NI 43-101 F1. It provides documentation for written disclosures and should be read in its entirety.

### 2.3 Source of Information

The report is based upon information provided by Ameriwest, and data collected, compiled, and validated by the author. Mineral rights, land ownership, and legal information were provided by David Watkinson, President and CEO of Ameriwest, and Charles Watson, Advanced Geologic Exploration Inc., who staked the unpatented mineral claims on behalf of Ameriwest. The author verified the claim information through the Bureau of Land Management (BLM), Mineral & Land Records System (MLRS), website, which was accessed on June 8, 2021.

The majority of the information contained within the report was derived from the following:

- Ameriwest supplied claims and exploration maps and third-party reports, including Technical Reports by other companies.
- Published literature.
- Personal knowledge and discussions with other persons.

The author visited the site on March 29, 2021 and June 2, 2022. Charles Watson, President of Advanced Geologic Exploration Inc., and a consultant geologist to Ameriwest, provided physical lease locations, identified claim posts, soil sample and geophysical line locations and a review of the local geology. No other material scientific or technical information has been completed by Ameriwest since the authors last site visit.

## 2.4 Units and List of Abbreviations

All units of measurement in this report are metric unless otherwise stated. All costs are expressed in US dollars (\$US). Exploration survey data are reported in Universal Transverse Mercator (UTM) coordinates, North American Datum (NAD 83). The abbreviations used in this report are shown in Table 1.

*Table 1. List of Units and Abbreviations*

ALI	Ameriwest	M.S.	Master of Science	m	Meter
CSE	Canadian Stock Exchange	4WD	Four Wheel Drive	\$US	US Dollars
Li	Lithium	ATV	All-Terrain Vehicle	LiCO <sub>3</sub>	Lithium Carbonate
LCE	Lithium Carbonate Equivalent	ac	Acre	LCE	Lithium Carbonate Equivalent
NI	National Instrument	ha	Hectare	ppm	Parts per Million
BLM	Bureau of Land Management	km	Kilometer	Mt	Metric Ton
DME	Deer Musk East	mi	Mile	kg	Kilogram
CPG	Certified Professional Geologist	MW	Megawatt	Li	Lithium Ion
QP	Qualified Person	ft	Foot	Ma	Million Years
UTM	Universal Transverse Mercator	kV	Kilovolt	Co	Degree Centigrade
NAD	North American Datum	ASL	Above Sea Level	PLS	Pregnant Leach Solution

## 3 Reliance on Other Experts

The author is not an expert in legal matters, such as the assessment of the legal validity of mining claims, mineral rights, and property agreements in the United States. The author has relied upon information and opinions supplied by Ameriwest Lithium and its consultants in regard to legal aspects of mineral claims associated with the DME property in Section 4.3. Information in Section 4.3 was provided by David Watkinson, President and CEO of Ameriwest with input from Ameriwest’s legal firm Robinson, Sharp, Sullivan, and Brust on October 21, 2021.

## 4 Property Description and Location

### 4.1 Property Description

The DME property consists of 371 unpatented placer claims totaling an approximate area of approximately 2,274 ha (7,378 ac). The claims fall under the jurisdiction of the Bureau of Land Management (“BLM”). They are located in southeastern Clayton Valley Nevada, USA as shown in Figure 1. Initially, 283 claims were staked by Advanced Geologic Exploration Inc. in February and March of 2021 on behalf of Ameriwest. An additional 88 claims were subsequently staked by Advanced Geologic Exploration in February of 2022 on behalf of Ameriwest. The claims, listed in Table 1 and shown in Figure 2, are held by Ameriwest’s 100% owned U.S. subsidiary, Oakley Ventures (USA) Inc.

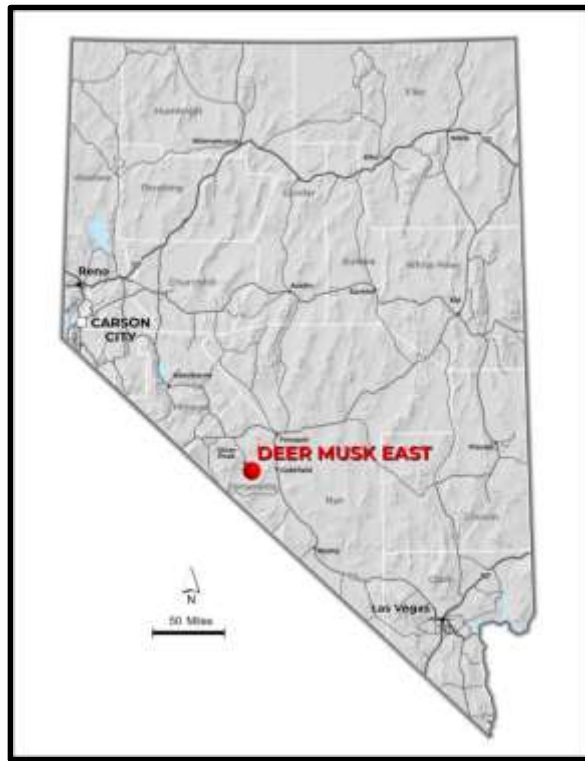
*Table 2. Deer Musk East Claim Information (BLM LR 2000 website, 2022)*

Serial Number	Lead File Number	Claim Name	County	Case Disposition	Claim Type	Next Payment Due Date	Dates Of Location
NV105235314 thru NV105235455	NV105235314	DME 1 to DME 143	ESMERALDA	FILED	PLACER CLAIM	9/1/2023	Feb and Mar 2021
NV105235456 thru NV105235527	NV105235314 and NV105235981	DME 300 to DME 439	ESMERALDA	FILED	PLACER CLAIM	9/1/2023	Feb and Mar 2021
NV 105749275 thru NV 105749362	NV015749275	OAK 1 to 88	ESMERALDA	FILED	PLACER CLAIM	9/1/2023	Feb 2022

## 4.2 Location

The property is located in the east end and southeast flank of Clayton Valley, as shown in Figure 1. The nearest settlement is the town of Silver Peak, which lies approximately 5 km (3 mi) to the NW. Access to Silver Peak is from Highway 265, a paved road that links Silver Peak to Highway 95. Highway 95 links Las Vegas to Reno, and the site is equidistant to both main cities (approximately 270 km (170 mi) from each main city). Silver Peak is approximately 61 km (38 mi) from Tonopah, which is the regional commercial center, and approximately 45 km (28 mi) from Goldfield, which is the County Seat of Esmeralda County. Access to and across the site from Silver Peak is via a series of gravel/dirt roads. The geographic coordinates at the approximate center of the property are N37.2022 by E 117.548971.

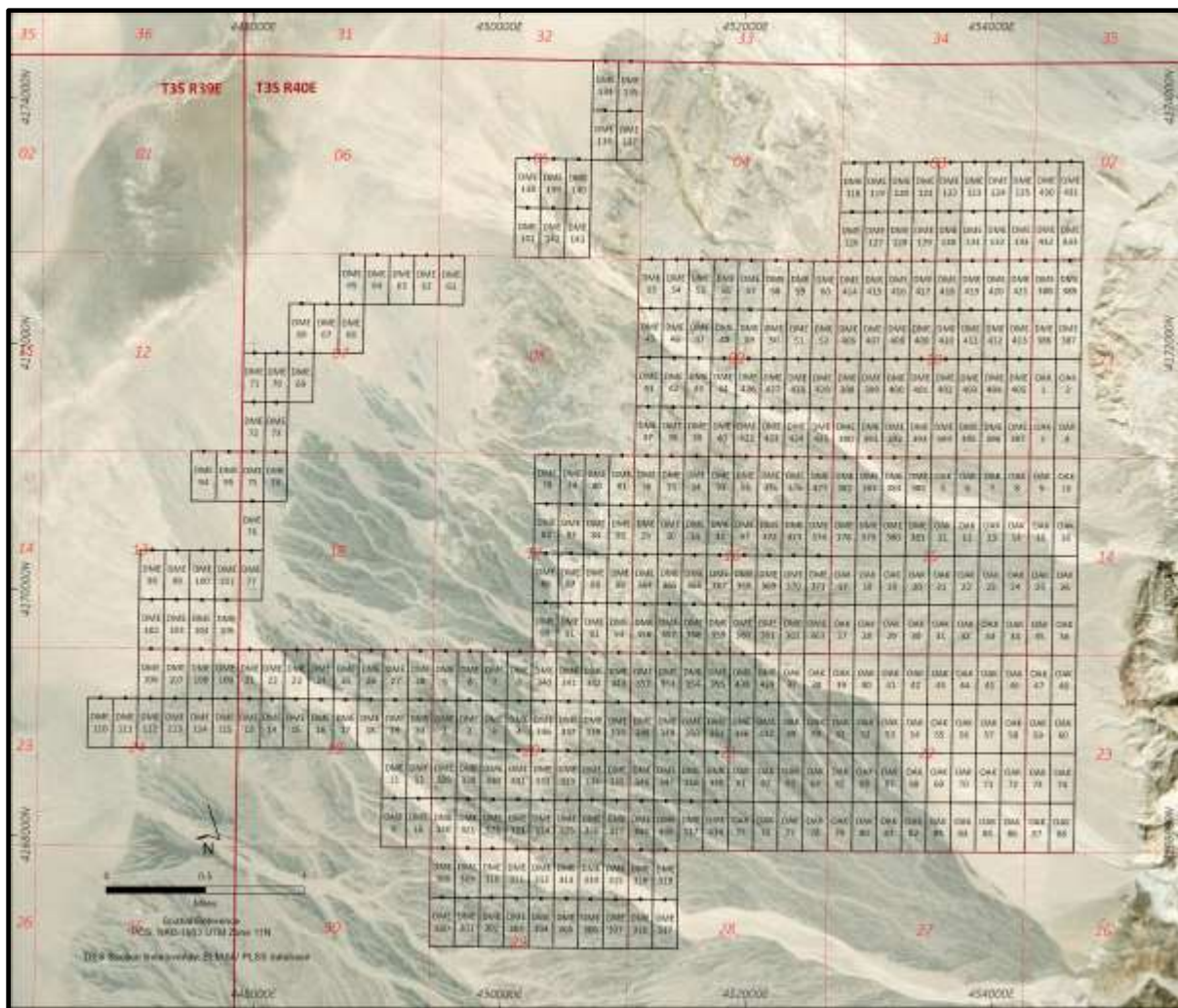
*Figure 1 Deer Musk East Property Location, Nevada, USA.*



The property is located approximately five miles southeast of Albemarle Corporation's (NYSE: ALB) ("Albemarle") Silver Peak Operation where lithium brines are extracted and processed in evaporation ponds to produce a variety of lithium chemicals. The Silver Peak Operation is currently the only operating lithium mine in North America and has been in operation since 1967. Pure Energy Minerals (TSXV: PE), whose project is west of DME, is constructing a pilot plant to evaluate brine recovery. Note that the location of DME in the vicinity to these properties does not guarantee exploration success for discovery of lithium brine deposits on the DME property.

Noram Ventures Inc. (TSXV: NRM) ("Noram"), Cypress Development Corporation (TSXV: CYP) ("Cypress"), and Spearmint Resources Inc. (CSE: SPMT) ("Spearmint") have all reported sedimentary mineral resources in the Clayton Valley. These deposits are contiguous along strike to the north of DME. Note that the vicinity of DME to these properties does not guarantee exploration success for the discovery of lithium clay deposits on the DME property.

Figure 2. Updated Deer Musk East Claim Locations in Clayton Valley, Nevada.



### 4.3 Potential Conflict with Existing Lode Claims

The majority of Ameriwest's placer claims (estimated 292 out of 371) are located on federal public lands on which another party had previously staked unpatented lode mining claims. Ameriwest initially staked 283 placer mining claims in Clayton Valley in February and March of 2021. On January 7, 2022, Ameriwest announced that it was advised of a complaint by Authium LLC ("Authium") related to a claim dispute at the DME Property. Authium stated that certain placer claims that make up part of the DME Property were staked over Authium's existing lode claims. Ameriwest's position is that the deposits, where it staked the claims, are clearly a placer deposits, not lode deposits, and therefore Authium's lode claims are invalid. Ameriwest indicated it planned to defend the validity of its placer claims through litigation. Ameriwest has retained a litigation attorney from Robison, Sharp, Sullivan, and Brust in Reno, NV for this purpose.

Authium initially served the complaint and related documents to Ameriwest's counsel on January 10, 2022. On February 2, the Authium filed a Notice of Dismissal of the initial complaint and subsequently served a revised complaint with lis pendens and related documents to Ameriwest's counsel on February 4, 2022. There was no change to the complaint, only the addition of the lis pendens. Ameriwest filed a counterclaim against Authium on February 15, 2022.

In February, Ameriwest staked an additional 88 placer claims further overlapping Authium's lode claims increasing the size of the DME property to 371 unpatented placer claims totaling about 2,274 ha (7,378 ac). Ameriwest amended its counterclaim against Authium, to include these additional 88 claims, on May 10, 2022.

Ameriwest and Authium are currently going through a discovery process which is expected to take several months to complete. Should a settlement of the dispute not be reached prior to going to court, Ameriwest believes its legal case is valid and, at this time, plans to defend its position in court.

Federal mining law in the United States has the following provisions:

*43 CFR Subpart B Types of Mining Claims*

*3832.20 Lode and Placer Mining Claims*

*3832.21 How do I locate lode or placer mining claims?*

*(a) Lode claims.*

*(1) Your lode claim is not valid until you have made a discovery.*

*(2) Locating a lode claim. You may locate a lode claim for a mineral that:*

*(i) Occurs as veins, lodes, ledges, or other rock in place;*

*(ii) Contains base and precious metals, gems and semi-precious stones, and certain industrial minerals, including but not limited to gold, silver, cinnabar, lead, tin, copper, zinc, fluorite, barite, or other valuable deposits; and*

*(iii) Does not occur as bedded rock (stratiform deposits such as gypsum or limestone) or is not a deposit of placer, alluvial (deposited by water), eluvial deposited by wind), colluvial (deposited by gravity), or aqueous origin.*

*(b) Placer claims.*

*(1) Your placer claim is not valid until you have made a discovery.*

*(2) Each 10-acre aliquot part of your placer claim must be mineral-in character.*

*(3) You may locate a placer claim for minerals that are—*

*(i) River sands or gravels bearing gold or valuable detrital minerals;*

*(ii) Hosted in soils, alluvium (deposited by water), eluvium (deposited by wind), colluvium (deposited by gravity), talus, or other rock not in its original place;*

*(iii) Bedded gypsum, limestone, cinders, pumice, and similar mineral deposits; or*

*(iv) Mineral-bearing brine (water saturated or strongly impregnated with salts and containing ancillary locatable minerals) not subject to the mineral leasing acts where a mineral subject to the General Mining Law can be extracted as the primary valuable mineral.*

*(4) Building stone deposits must by law be located as placer mining claims (30 U.S.C. 161). If you have located a building stone placer claim, the lands on which you located the claim must be chiefly valuable for mining building stone.*

It is Ameriwest's belief that any sedimentary clay, mudstone, or siltstone deposits found on the property cannot be lode deposits under 3832.21(a)(2)(ii) as they are clearly bedded stratiform deposits. Under 3832.21(b)(iii), they would be similar to deposits of bedded gypsum, limestone, cinders, pumice, and other mineral deposits and thus considered placer by federal definition.

Under 3832.21(b)(ii) deposits containing materials hoisted in soils, alluvium (deposited by water), eluvium (deposited by wind), colluvium (deposited by gravity), talus, or other rock, not in its original place are placer. This definition also describes the alluvial and bedded stratiform clay deposits found on the property.

Any brine deposit is properly located under 3832.21(b)(3)(iv) and brine deposits are by definition placer deposits.

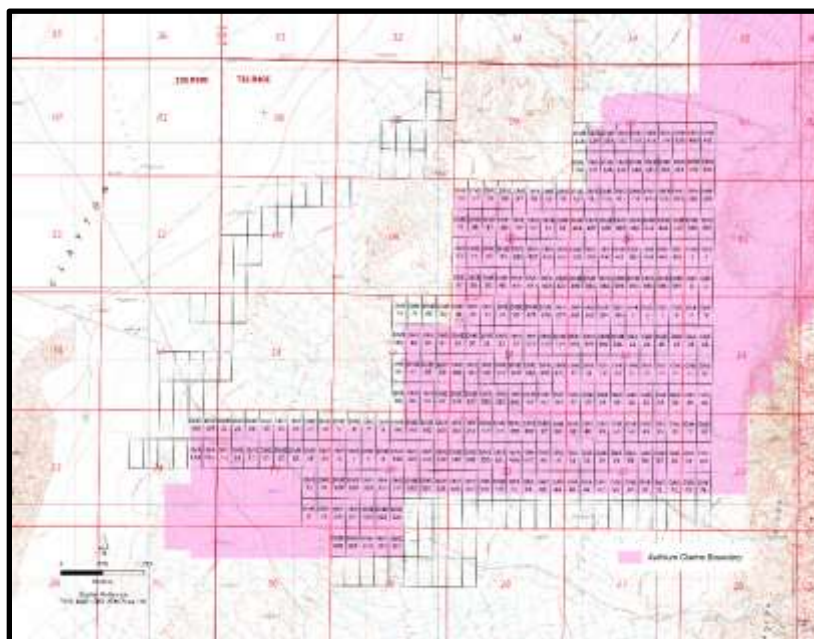
Generally, a lode mineral deposit will not support a placer mining claim and a placer mineral deposit will not support a lode mining claim. Legal decisions hold that a claim that is incorrectly located for a particular type of deposit will be held to be invalid, if contested.

The Ameriwest Technical Report Section 7 describes the geology and mineralization of the deposit and Section 8 describes the deposit types. The brines on the Ameriwest placer mining claims clearly do not meet the requirements for a lode claim and it is Ameriwest's position that its placer mining claims appropriate all of the lithium bearing brines on the Ameriwest mining claims. The sedimentary placer deposits consist of alluvium, tuffaceous mudstone that have alternating beds of silt mudstones, and ash deposited in a lacustrine environment, in this case a lake. Bedded gypsum, limestone, and pumice are examples of similar minerals that are located with placer

claims. Kaolin clay deposits have also been located with placer claims. The DME sedimentary deposits are, in Ameriwest's opinion, similar to these types of deposits and are sedimentary placer deposits. Lode claims typically cover classic veins or lodes having well-defined boundaries and also include other rock in-place bearing valuable mineral deposits.

Figure 3 shows Ameriwest's claims overlapping with Authium LLC's lode claims in pink. Two hundred and ninety-three Ameriwest placer claims are estimated to partially or fully overlap Authium's lode claims. Sixty-nine of Ameriwest's placer claims are estimated not to overlap any lode claims and Ameriwest believes there is no concern about the validity of these claims.

*Figure 3. DME Placer Claims Overlapping with Adjacent Lode Claims.*



#### 4.4 Water Rights

A concern to future development of the DME will be securing water rights. Exploration for lithium in sedimentary or brine deposits, which includes drilling and pump testing, can be performed through temporary discharge permits. Water rights appropriations are not required if the loss of water is not more than 5 ac-ft during the testing and sampling of water pumped within a dissolved mineral resource exploration project. If more than this amount is pumped, water appropriation processes must be followed (Nevada Research Division, 2019).

As with many water basins in Nevada, there is risk in obtaining water rights in Clayton Valley necessary for a producing mine. Clayton Valley has a perennial water yield of 20,000 ac-ft per year and is currently over-appropriated for water rights (Farr West Engineering, 2012). The majority of water rights are held by Albemarle, which is currently permitted to use up to 20,000 ac-ft per year of water. Cypress Development Corporation is permitted to use up to 1,770 ac-ft per year. In 2019, Pure Energy Minerals Ltd. was granted a permit for 50 ac-ft per year of water

rights in Clayton Valley for brine extraction to allow it to operate a pilot plant for pilot scale production of lithium.

The DME property has potential to host both sedimentary and brine deposits. Should Ameriwest conduct exploration and ultimately define mineral resources or mineral reserves (note that none are currently defined on the property), the company will have to be concerned about availability of water rights. This can potentially be addressed through acquisition of water rights from other holders, permitting of new water rights (if there is availability at the time), and through selection of technology that minimizes water use and recycles water. Potentially the company could option, joint venture, or sell the property to a company that has water rights in Clayton Valley.

Technology for processing lithium is currently being developed by numerous companies. Companies like Albemarle that arguably have not necessarily had to conserve, recycle, or follow best practices for use of water are being pressured to reduce water usage which may free up water rights for other.

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

### **5.1 Accessibility**

The DME placer claims are accessed from the small township of Silver Peak and lie to the southeast of the long-established lithium operations, currently owned and operated by Albemarle. Silver Peak is approximately 61 km (38 miles) from Tonopah, which is the regional commercial center, and approximately 45 km (28 miles) from Goldfield, which is the County Seat of Esmeralda County. Access to and across the site from Silver Peak is via a series of gravel/dirt roads. The main gravel roads that run south and southeast from Silver Peak into the project area are well maintained and easily accessible with a normal 2WD vehicle. The minor gravel/dirt roads that crisscross the property are typically not maintained and require 4WD to negotiate safely, particularly after high winds have caused drifting sand to form on the roads. Most of the property requires the use of an ATV for access.

### **5.2 Climate and Vegetation**

Clayton Valley has a generally arid to semi-arid climate, characterized by hot dry summers and cold winters. The climate is influenced strongly by the Sierra Nevada Mountains to the west, which produce a pronounced rain shadow, and have the general effect of making Nevada the driest state in the US. Precipitation is scattered throughout the year, with slightly more precipitation in late winter/early spring. During the winter months, high-pressure conditions predominate and result in west-to-east trending winds and precipitation patterns. During the summer months, low-pressure conditions predominate, resulting in southwest-to-northeast trending precipitation patterns. Winter storm events tend to last longer and produce more precipitation than the summer events, which tend to produce widely scattered showers of short duration; drought is common and can last for more than 100 days.



Localized dust storms are common in Clayton Valley, and typically form later in the day after pronounced solar heating of the ground surface (all general climate information sourced from City-Data.com for Silver Peak are provided in Figure 4).

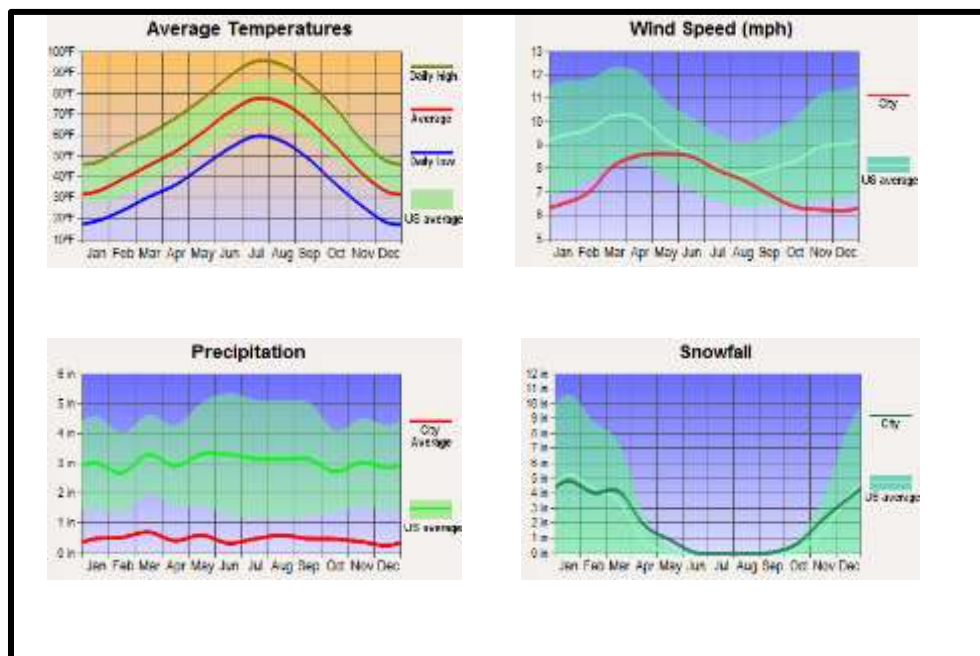
The exploration season is effectively year-round. There are periods where heavy rainfall may cause minor localized flooding of access roads, and in this instance, access onto the playa floor may be limited for a few days.

Vegetation coverage across the site area is generally very sparse and consists of a mixture of low scrub and grasses forming high desert, prairie, or shrub-steppe vegetation populations. Previous biological fieldwork completed at the site reported a mix of Saltbush, Greasewood Bush, Pickleweed, Saltgrass and Russian Thistle, with other occasional minor species (Spanjers, 2015). Many areas on the flat playa floor and the sand dune area having effectively no vegetation cover at all.

### 5.3 Local Resources

Silver Peak is the nearest census-designated settlement, with a population of 142 in 2021 ([www.city-data.com](http://www.city-data.com)). The unincorporated town has a US Post Office (ZIP code 89047), fire/EMS station, small school and a tavern. There are no significant services/shops in Silver Peak. The main employers are the lithium-brine operation of Albemarle Corp and other hard-rock mining operations in the Clayton Valley area.

Figure 4. Average Weather Data for Silver Peak, Nevada ([www.city-data.com](http://www.city-data.com)).



Goldfield is the County Seat for Esmeralda County with a population of 298 at the last census in 2020 ([www.city-data.com](http://www.city-data.com)). It has a series of small convenience stores, a small restaurant, motel

and a gas station. As with Silver Peak, the population fluctuates depending on economic factors, as there are several small mining operations close to Goldfield that open and close with varying commodity prices. The County buildings in Goldfield house all the claim records for the various mining claims in Clayton Valley.

Tonopah is the main commercial center close to Clayton Valley and has a full range of services, including grocery stores, restaurants, hotels/motels, banks, hardware stores and government offices (e.g. local BLM office for recording claims, making permit applications etc.). The population of Tonopah was 2,478 in the 2020 census, and is the County Seat of Nye County. Employment in Tonopah is a mixture of service jobs, military (Tonopah Test Range), mining and industrial jobs related to the nearby Crescent Dunes concentrating solar plant.

## 5.4 Infrastructure

A series of well-maintained state highways connect Silver Peak to the main road network in Nevada and beyond, and graded and maintained gravel roads link Silver Peak to the southern half of Clayton Valley. A gravel road from Goldfield to Clayton Valley has been paved. These roads connect Silver Peak to the local community of Lida in the south and allow year-round access to the project area. Access to the DME claims will require additional road construction off of existing roads or the use of ATVs.

The nearest rail system is in Hawthorne, Nevada, approximately 145 km (90 miles) by road to the north of Silver Peak. This rail system is operated by Union Pacific and links northwards towards the main Union Pacific rail system in the Sparks/Reno area. There is a County-owned, public use airport in Tonopah that has two runways, each approximately 2 km (7,000 ft) long.

*Figure 5 Silver Peak Electrical Substation*



Electrical connection is possible at the sub-station in Silver Peak and is shown in Figure 5. This sub-station connects a pair of 55kV lines that form an electrical intertie between the Nevada and California electrical systems (maximum power capacity exchange allowed of 17 MW across the intertie), with two 55kV lines that link the sub-station to the main electrical grid in Nevada. One of the 55kV lines from the sub-station runs northwards to the Millers sub-station that lies approximately 47 km (29 mi) northeast from Silver Peak, and at this point, the 55kV line interconnects to the 120kV transmission system (and then the 230kV system just north at the Crescent Dunes plant and Anaconda Moly sub-station). The other 55kV line runs east from Silver Peak and feeds back into Goldfield and Tonopah. Total electricity usage by the existing Albemarle lithium facility is reported as averaging 1.89 MW, with maximum usage of 2.54 MW (DOE/EA-1715, Sept 2010); note that a typical 55kV line is capable of transferring 10-40 MW of power depending on local factors.

Water supply is currently served by the Silver Peak municipal water supply. This is serviced by three wells that abstract water from alluvial fans on the western flank of Clayton Valley, approximately 1 km (0.62 mi) southwest of the town.

## 5.5 Physiography

### 5.5.1 Clayton Valley Physiography

Clayton Valley lies in a complex zone of disrupted structure between the northwest trending Sierra Nevada Mountain Range to the west, and the north-south trending Basin and Range province to the north and east. The valley has a total watershed area of 1,437 km<sup>2</sup> (555 mi<sup>2</sup>) and the floor of the valley lies at an altitude of approximately 1,320 m ASL (4,320 ft ASL). The surrounding mountains generally rise several hundred meters above the valley floor, with the highest surrounding mountain being Silver Peak at 2,859 m ASL (9,380 ft ASL). The valley is bounded to the west by the Silver Peak Mountain Range, to the south by the Palmetto Mountains, to the east by Clayton Ridge and the Montezuma Range, and to the north by the Weepah Hills as shown in Figure 6.

There is no permanent surface water in the Clayton Valley watershed, with the exception of the man-made evaporation ponds operated by Albemarle Corp. All watercourses are ephemeral and only active during periods of intense precipitation.

Clayton Valley lies at a lower elevation than the surrounding basins (Big Smoky Valley lies approximately 122 m (400 ft) higher; Alkali Flats Valley lies approximately 140 m (460 ft) higher, and it is thought to receive some sub-surface groundwater flow from these basins based on regional static groundwater levels).

### 5.5.2 Deer Musk East Physiography

Field observations on the DME property indicate a subdivision into three physiographic zones that are bounded by fault systems: 1) the playa and adjacent lowlands, 2) the central core uplift, and 3) the eastern fan complex (Charles Watson, personal communication).

The Playa and adjacent lowlands are composed of sedimentary strata and alluvium. The land is sparsely populated with vegetation. The central core uplift appears to be the manifestation of a rotated normal fault block sliver, that has exposed uplifted Pleistocene deposits between specific fault traces. Field measurements indicate that the sediments exposed in the core uplift fault block dip 3-6 degrees eastward, as shown in Figure 7. The eastern part of the property is a fan complex that covers the majority of the property area. The fans are characterized by poorly sorted alluvial deposits and are cut by washes, as shown in Figure 8.

Figure 6 Physiographic Map of Clayton Valley and Environs (Zampirro, 2005).

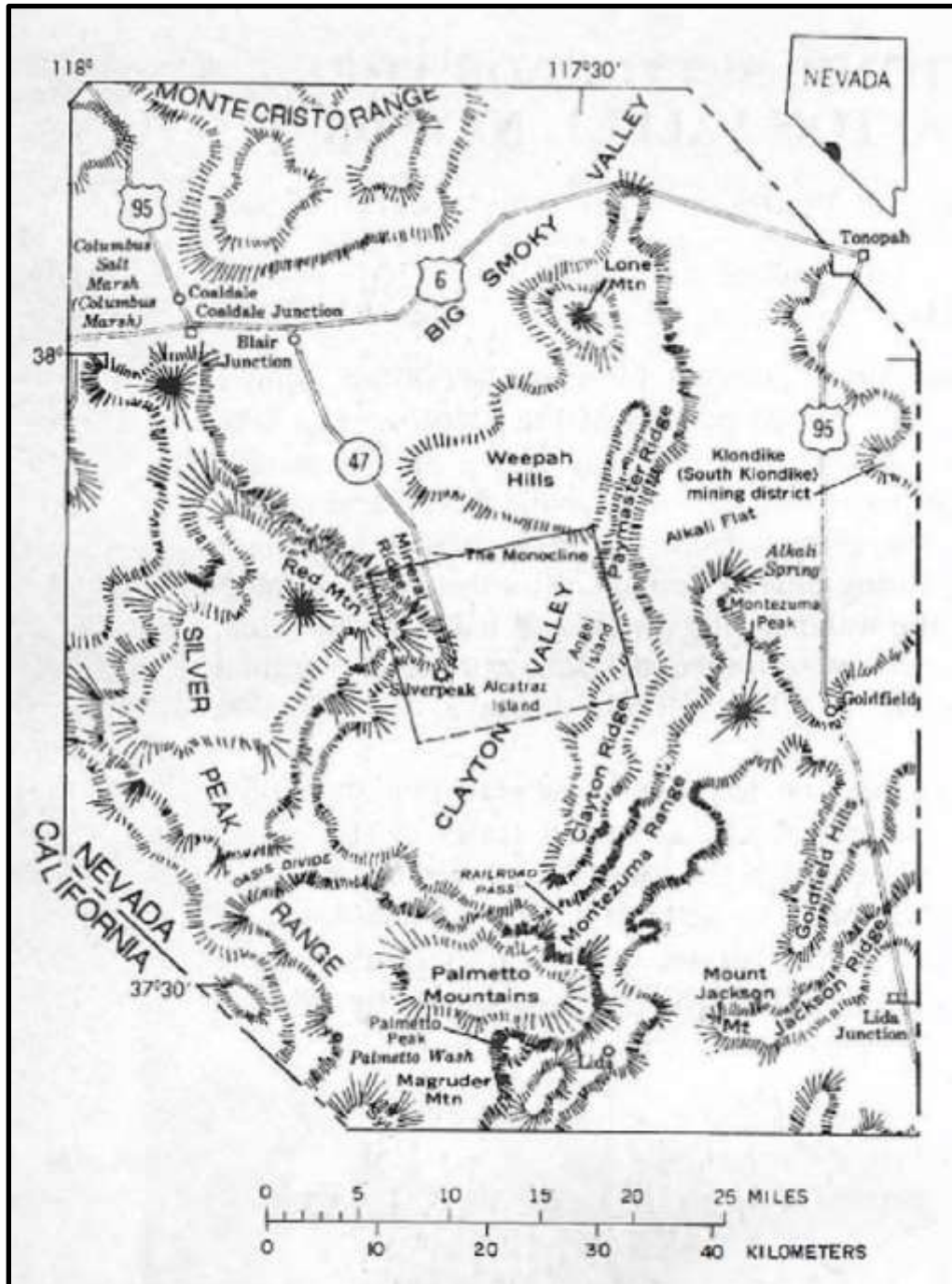


Figure 7. Drone Photograph of the Valley Floor and Core Uplift Zones on DME Property.



*Figure 8. Drone Photo of Typical Alluvial Fan on DME Property*



## 6 History

The author is not aware of any historical exploration or production work on the DME claims.

## 7 Geological Setting Mineralization

### 7.1 Geology

#### 7.1.1 Regional Geology

Clayton Valley is located within the Basin and Range Province in southern Nevada. It is a closed basin that is fault bounded on the north by the Weepah Hills, the east by Clayton Ridge, the south by the Palmetto Mountains and the west by the Silver Peak Range and Mineral Ridge as shown in Figure 6. The general geology of Clayton Valley is illustrated in Figure 9. This area has been the focus of several tectonic and structural investigations because of its position relative to Walker Lane, the Mina Deflection, and the Eastern California Shear Zone (McGuire, 2012; Burris, 2013). The basement rock of Clayton Valley consists of late Neoproterozoic to Ordovician carbonate and clastic rocks that were deposited along the ancient western passive margin of North America.

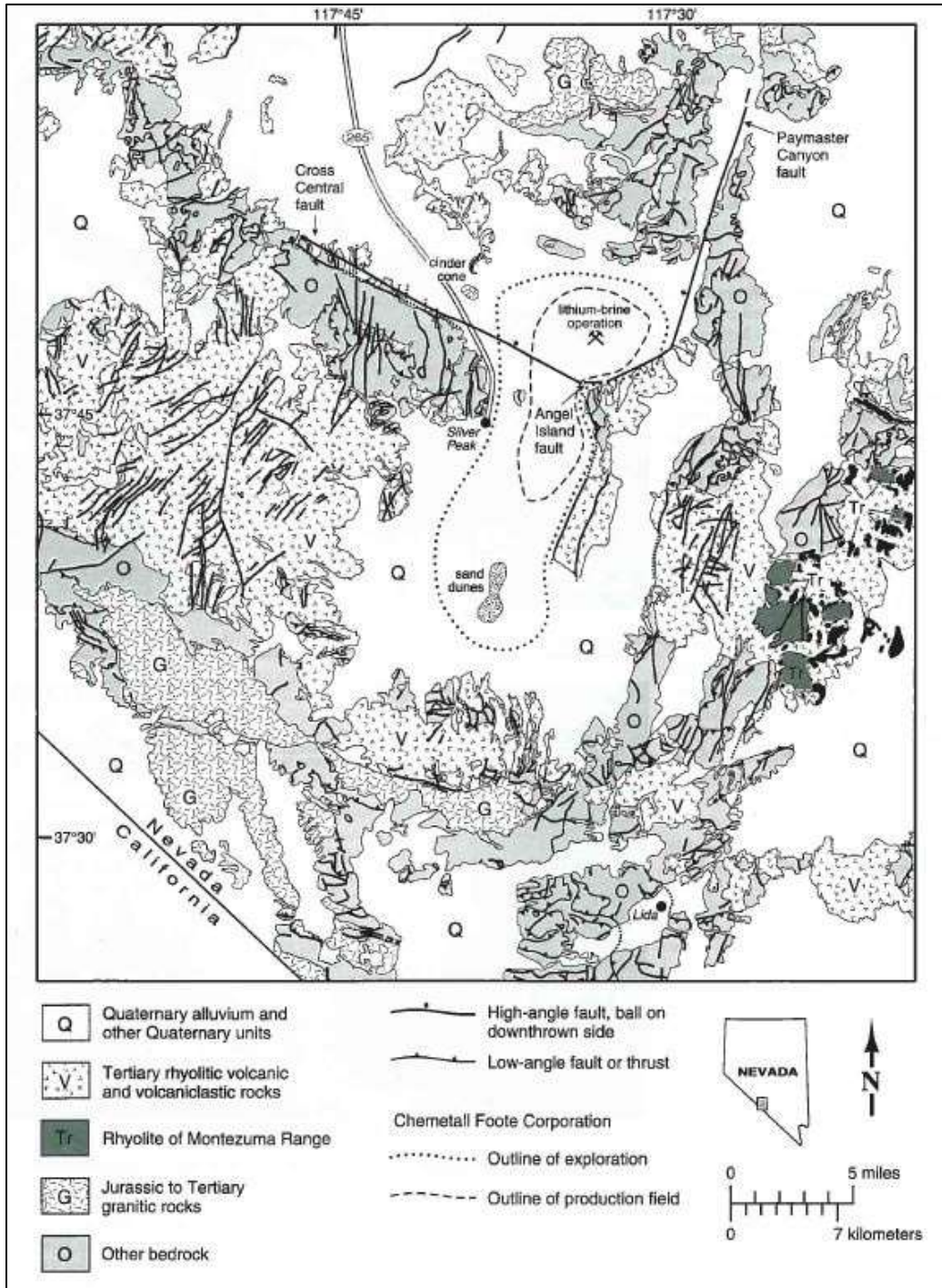
During late Paleozoic and Mesozoic orogenies, the region was shortened and subjected to low-grade metamorphism (Oldow et al., 1989; Oldow et al., 2009) and granitoids were emplaced at ca. 155 and 85 Ma. Extension commenced at ca. 16 Ma and has continued to the present, with changes in structural style as documented in the Silver Peak-Lone Mountain Extensional Complex (Oldow et al., 2009; Burris, 2013). A metamorphic core complex just west of Clayton Valley was exhumed from mid-crustal depths during Neogene extension. There is a Quaternary cinder cone and associated basaltic lava flows in the northwest part of the basin.

The basin is bounded to the east by a steep normal fault system toward which basin strata thicken (Davis et al., 1986). These basin-filling strata compose the aquifer system which hosts and produces the lithium-rich brine (Zampirro, 2004; Munk et al., 2011). The north and east parts of Clayton Valley are flanked with Miocene to Pliocene sediments containing multiple primary and reworked volcanic ash deposits within fine-grained clay and silt units. These deposits are a part of the Esmeralda Formation first described by Turner (1900) and later by Stewart (1989) and Stewart and Diamond (1990). The Esmeralda Formation is a sedimentary sequence grading from coal-bearing siltstones, sandstones and conglomerates at the base to fine-grained tuffaceous lacustrine sediments at the top of the section. This formation is primarily mapped in the areas north of Clayton Valley (Stewart and Diamond, 1990) but there are also lacustrine deposits composed primarily of clays and fine-grained sediments with volcanic ash layers on the east side of Clayton Valley described as Esmeralda Formation by Kunasz (1974) and Davis (1981).

Work by Burris (2013), aimed at unravelling the tectonic and structural history of the Weepah Hills area to the north of Clayton Valley, reports a series of zircon helium ages for three volcanic-sedimentary depositional units from the upper plate in the Weepah Hills area. These are considered eruptive ages and include the Lone Mountain (23-18 Ma) unit, the Esmeralda Formation (12-10 Ma), and the Alum Mine Formation (10-6 Ma). Ongoing work by L. Munk (pers.

comm.) includes efforts to date volcanic-sedimentary units from the east side of the basin as well as from downhole samples in order to further understand the depositional history of these units and possible correlation with surface outcrops.

Figure 9. Geologic Map of Clayton Valley and Surrounding Area (Zampirro, 2005).



Multiple wetting and drying periods during the Pleistocene resulted in the formation of lacustrine deposits, salt beds, and lithium-rich brines in the Clayton Valley basin. The Late Miocene to Pliocene tuffaceous lacustrine facies of the Esmeralda Formation contain up to 1,300 ppm lithium and an average of 100 ppm lithium (Kunasz, 1974; Davis and Vine, 1979). Hectorite (lithium bearing smectite) in the surface playa sediments contains from 350 to 1,171 ppm lithium (Kunasz, 1974). More recent work by Morissette (2012) confirms elevated lithium concentrations in hectorite in the range of 160-910 ppm from samples collected on the northeast side of Clayton Valley. Miocene silicic tuffs and rhyolites along the basin's eastern flank have lithium concentrations up to 228 ppm (Price et al., 2000).

Prior to development of the brine resource in Clayton Valley, a salt flat and brine pool existed in the northern part of the basin, but groundwater pumping has eliminated the surface brine pool. The presence of travertine deposits which occur in the northeast part of the valley, as well as the west and central parts of the valley, are also evidence of past hot spring activity on the valley floor. At the base of Paymaster Canyon, gravity and seismic surveys have been used to map the Weepah Hills detachment fault but also reveal the presence of tufa at depth coincident with a geothermal anomaly (McGuire, 2012). This area and another just north of the town of Silver Peak are underlain by aquifers that contain hot water (~50-60°C) and approximately 40 ppm lithium (L. Munk, pers. comm.). Hot spring deposits in these locations and others in the basin have also been mapped by Hulen (2008).

### 7.1.2 DME Surface Geology

The DME surface geology is characterized by dissected Quaternary multi-aged alluvial fans and exposures of Miocene Esmeralda Fm. Foy et al. (2016) mapped alluvium on a portion of southeast Clayton Valley near the DME claims, and characterized the alluvium into eight age-dated and two undated Quaternary units as shown in Figure 10. Undivided bedrock, consisting of sandstone, shale, marl, conglomerate, and breccia and white volcanic ash deposits of unknown age, were mapped through portions of the valley, some of which also appear to have been deformed by earlier Cenozoic faults. Mapped faults in the alluvium indicate that active faulting in the area continues. Recent mapping by Extrados (2021, Figure 11) defined three basic units: Quaternary active alluvium (Qa), Quarter intermediate alluvium (Qia) and Tertiary sediments and tuffs (Tst).

#### 7.1.2.1 Qa Unit

The Qa unit consists of unsorted to poorly sorted clast-supported sands, which range to boulders in size. Debris flow levees follow the flow of water. This unit exhibits a higher albedo in satellite images.

#### 7.1.2.2 Qia Unit

The Qia unit is composed of clast supported sands and gravels of various lithologies. The surface exhibits well developed varnish and desert pavement.

#### 7.1.2.3 Tst Unit

The Tst unit, shown in Figure 12, is described as uplifted lake bed sediments of the Miocene Esmeralda Fm., a lithium-bearing strata, and is composed of bedded alluvial gravels, sandstone,



evaporite layers and ash beds. The Esmeralda Fm. is exposed primarily in the north-central portion of the DME, and minimally, in the upper northeast corner of the tract. The abrupt absence of Esmeralda Fm. south of the north-central outcrop suggests that the unit exists at depth beneath the Quaternary alluvium. The central core uplift on the west side of the property suggests the presence of a small normal fault block or sliver that has rotated.

Figure 10. Preliminary Surficial Geologic Map of Selected Parts of Clayton Valley and the Northwest Montezuma Range Piedmont, Esmeralda County, Nevada. (Foy et al., 2016).

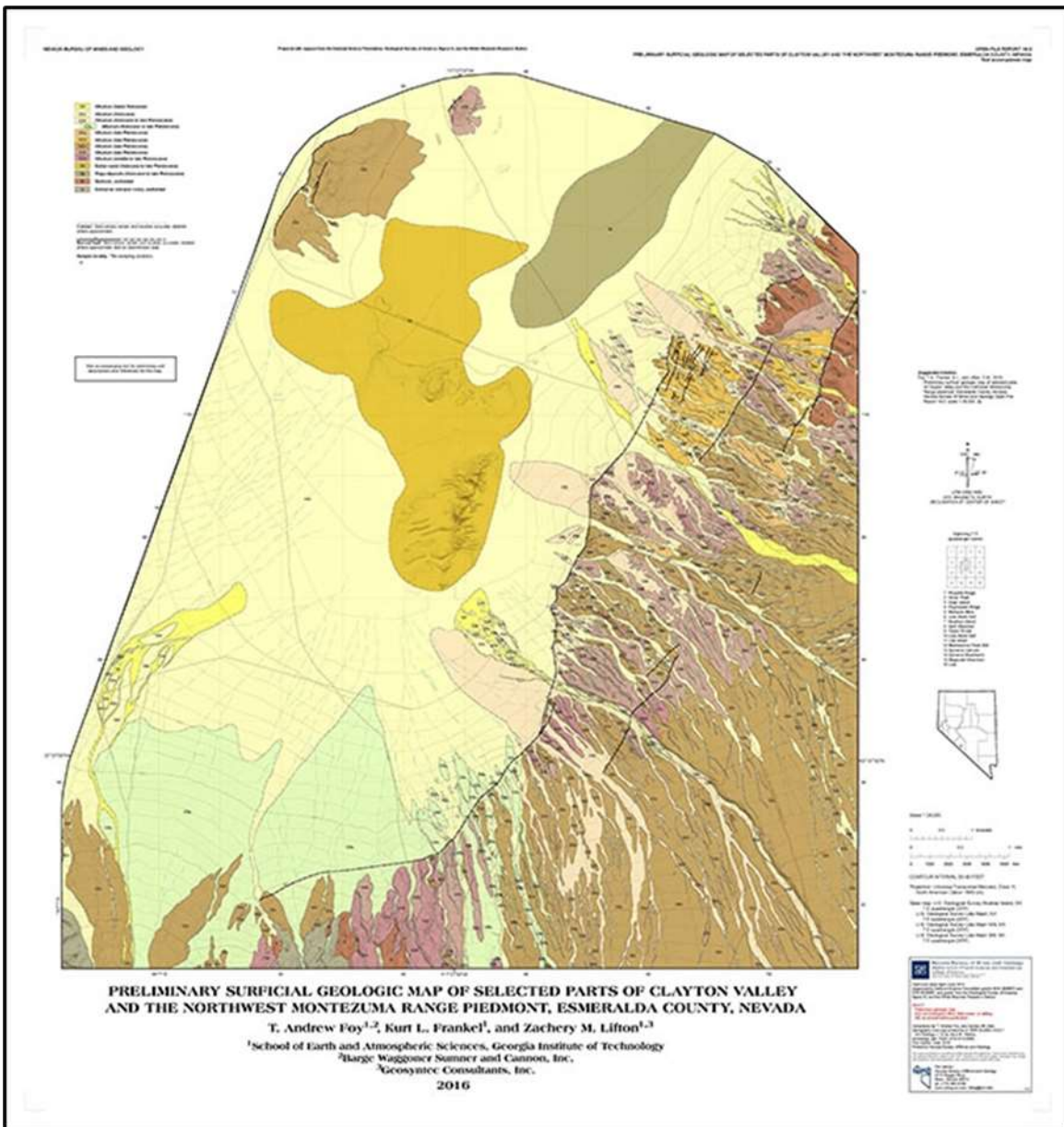


Figure 11. Surface geology of the DME Project (modified after Extrados, 2022).

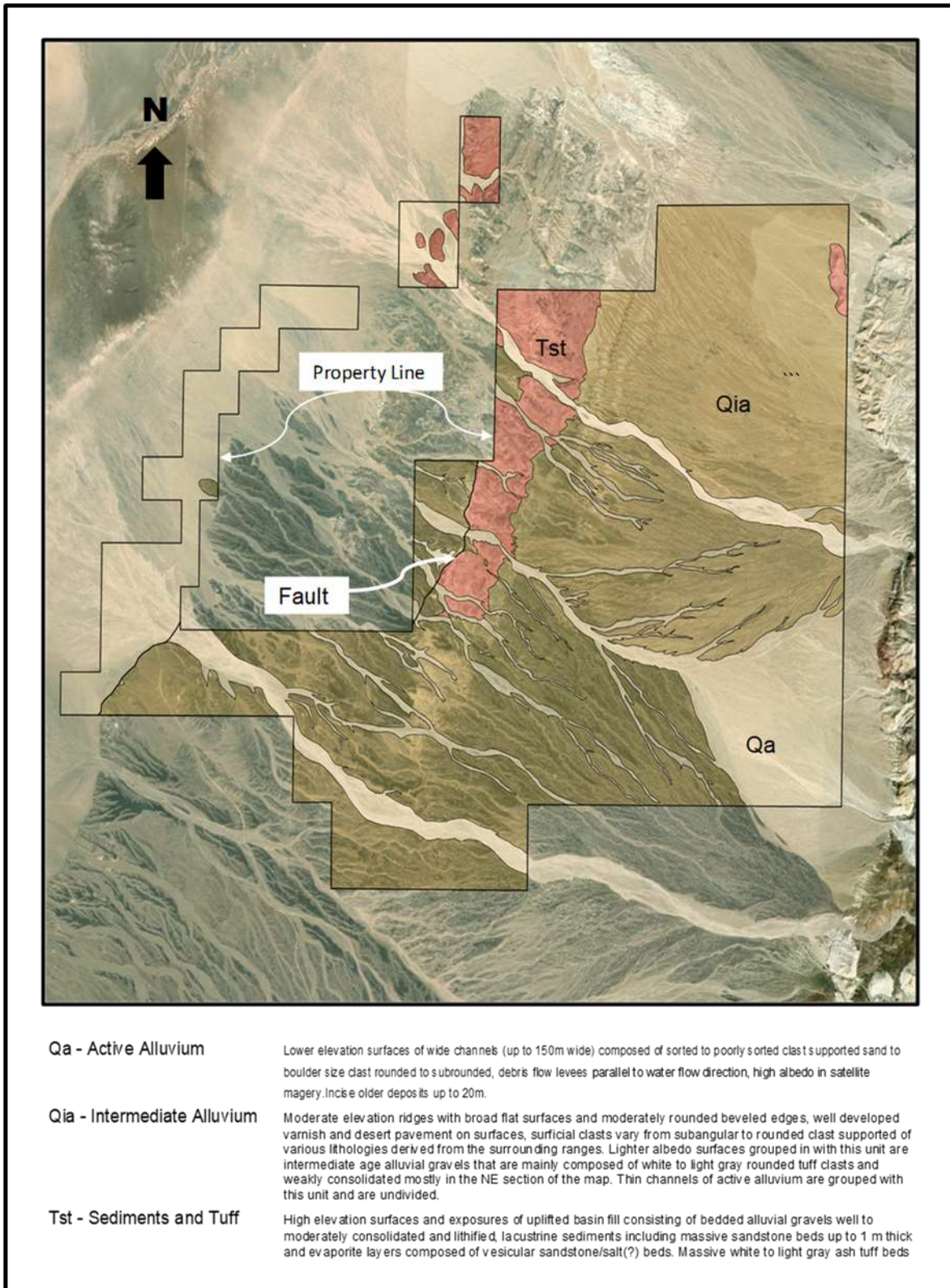


Figure 12. Tertiary (Tst) outcrops on DME claims.



**Left:** A closeup of the prominent fault of the volcanic deposits and tuffaceous sediments. The resistant units are algal mats and tuffaceous mudstone separated by volcanic ash. **Right:** Photo of algal mats near rock sample DME R-6.



**Left:** Upper sedimentary sequence in the ECVH that shows fanglomerates mixed with tuffaceous mudstone. **Right:** Lowest sedimentary unit is a welded airfall tuff with small blebs of obsidian, lapelli hairs, volcanic and lithic fragments.

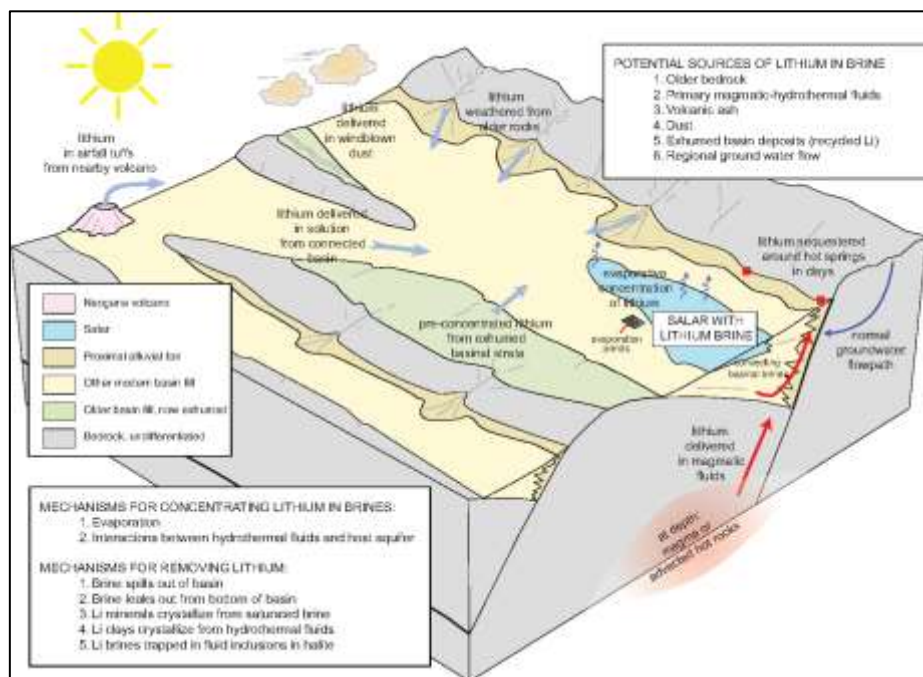
## 7.2 Mineralization

### 7.2.1 Brine Mineralization

Lithium mineralization in Clayton Valley occurs as lithium rich brine in Pleistocene lake placer sediments and in older uplifted Miocene Esmeralda Formation lacustrine clays, ash, and tuffs. Both occurrences are applicable to the DME project.

The lithium brine geochemistry and composition were first investigated by Davis and Vine (1979) and Davis et al. (1986), Munk et al. (2011) and Jochens and Munk (2011). A model for continental Li-rich brine systems was proposed by L. Munk, et al. (2016), which described six common characteristics that provide clues to deposit genesis while also serving as exploration guidelines. As shown in Figure 13. They are: (1) arid climate; (2) closed basin containing a salar (salt crust), a salt-lake, or both; (3) associated igneous and/or geothermal activity; (4) tectonically driven subsidence; (5) suitable lithium sources; and (6) sufficient time to concentrate brine. In general, the brines from the north part of Clayton Valley are Na-Cl in composition and have lithium concentrations in the range of 60-400 mg/L Li.

Figure 13. Continental Lithium Brine Formation (L. Munk, S. Hynek, D. Bradley, D. Boutt, K. Labay, Hillary Jochens, 2016).



Lithium mineralization is present within the finer-grained clastic sediments and ash/tuff layers that were deposited as part of a Pleistocene lake. Zampirro (2005) noted that these sediments are typically found in the eastern half of the elongated Clayton Valley. The mineralization is present as a series of aquifers that contain brines with varying concentrations of lithium. Where data exist, they tend to show that the aquifers are closer to the surface in the northern part of Clayton Valley, and that they deepen in the southern half, as the total thickness of the basin increases to the south, as does the thickness of the overlying alluvial sediments which do not contain mineralization.

### 7.2.2 Clay Mineralization

Lithium bearing sediments have been recognized in Clayton Valley for some time in uplifted paleo Miocene Esmeralda Formation lacustrine clays, ash, and tuffs. Kunasz (1974) reported up to 623 ppm lithium in a sequence of altered volcanic ashes on the east side of Clayton Valley with a bulk lithium concentration ranging from 496-2,740 ppm. Morissette (2012) measured lithium

concentration in the clay size fraction from samples collected in the upper member of the Esmeralda Formation in the range of 1,140-4,950 ppm for six samples. whereas Kunasz (1974) reports up to 140 mg/L water soluble lithium from the clay-sized fraction in the Esmeralda Formation on the east side of the basin. As noted earlier, exploration efforts by Noram, Cypress and Spearmint have confirmed Esmeralda Formation lithium values.

## 8 Deposit Types

Lithium is found in five main types of deposits: pegmatites, continental brines, clays, oil well field brines, and lithium-borate evaporites. Continental brines and lithium clay sedimentary deposits, potential exploration targets on the Ameriwest claims, are found In Clayton Valley.

### 8.1 Continental Brines

Continental brines are the primary source of lithium products worldwide. Bradley, et al. (2013) noted that “all producing lithium brine deposits share a number of first-order characteristics: (1) arid climate; (2) closed basin containing a playa or salar; (3) tectonically driven subsidence; (4) associated igneous or geothermal activity; (5) suitable lithium source-rocks; (6) one or more adequate aquifers; and (7) sufficient time to concentrate a brine.” The lithium atom does not readily form evaporite minerals, remains in solution and concentrates to high levels, reaching 4,000 ppm at Salar de Atacama. Large deposits are mined in the Salar de Atacama, Chile (SQM and Albemarle), Salar de Hombre Muerto, Argentina (Livent Corporation, formerly FMC) and Clayton Valley, Nevada (Albemarle), the only North American producer. Pure Energy has a lithium brine property south of Albemarle’s Silver Peak Operation that is being advanced toward production and is at the pilot plant stage (See Section 23, Adjacent Properties).

Lithium brine deposit models have been discussed by Houston et al. (2011), Bradley et al. (2013) and more extensively by Munk et al. (2016). Houston et al. (2011) classified the salars in the Altiplano-Puna region of the Central Andes, South America in terms of two end members, “immature clastic” or “mature halite,” primarily using (1) the relative amount of clastic versus evaporate sediment; (2) climatic and tectonic influences, as related to altitude and latitude; and (3) basic hydrology, which controls the influx of fresh water. The immature classification refers to basins that generally occur at higher (wetter) elevations in the north and east of the region, contain alternating clastic and evaporite sedimentary sequences dominated by gypsum, have recycled salts, and a general low abundance of halite. Mature refers to salars in arid to hyper arid climates, which occur in the lower elevations of the region, reach halite saturation, and have intercalated clay and silt and/or volcanic deposits. An important point made by Houston et al. (2011) is the relative significance of aquifer permeability which is controlled by the geological and geochemical composition of the aquifers. For example, immature salars may contain large volumes of easily extractable lithium rich brines simply because they are comprised of a mixture of clastic and evaporite aquifer materials that have higher porosity and permeability. For example, the Salar de Atacama could be classified as a mature salar whereas the Clayton Valley salar has characteristics more like an immature salar.

## 8.2 Lithium Clays

Lithium clay deposits have gained notice in recent years due to advances in lithium extraction technology. Clay deposit provenance is lithium-rich volcanic ash that is deposited in lacustrine environments, forms claystones and altered tuffs, and is exposed through subsequent uplift. Clay mineralogy includes smectite, hectorite (a subset of smectite) and illite. Examples of lithium clay deposits are Lithium Americas' Thacker Pass project at the south end of the McDermott Caldera near the Nevada-Oregon border and Bacanora Minerals' La Ventana deposit in Sonora, Mexico. Three companies, Cypress, Spearmint, and Noram Ventures, have advanced-stage lithium clay projects on the east slope of Clayton Valley directly north of the Ameriwest claims (see Section 23, Adjacent Properties). Ameriwest believes sedimentary placer lithium deposits are found at DME.

## 9 Exploration

Recently completed exploration activities on the DME include additional claims staking, geologic mapping, soil and rock sampling, Bouger gravity, seismic reflection, transient-electromagnetic geophysical (TEM) and magnetotelluric (MT) surveys. Each is described below.

### 9.1 Soil Survey

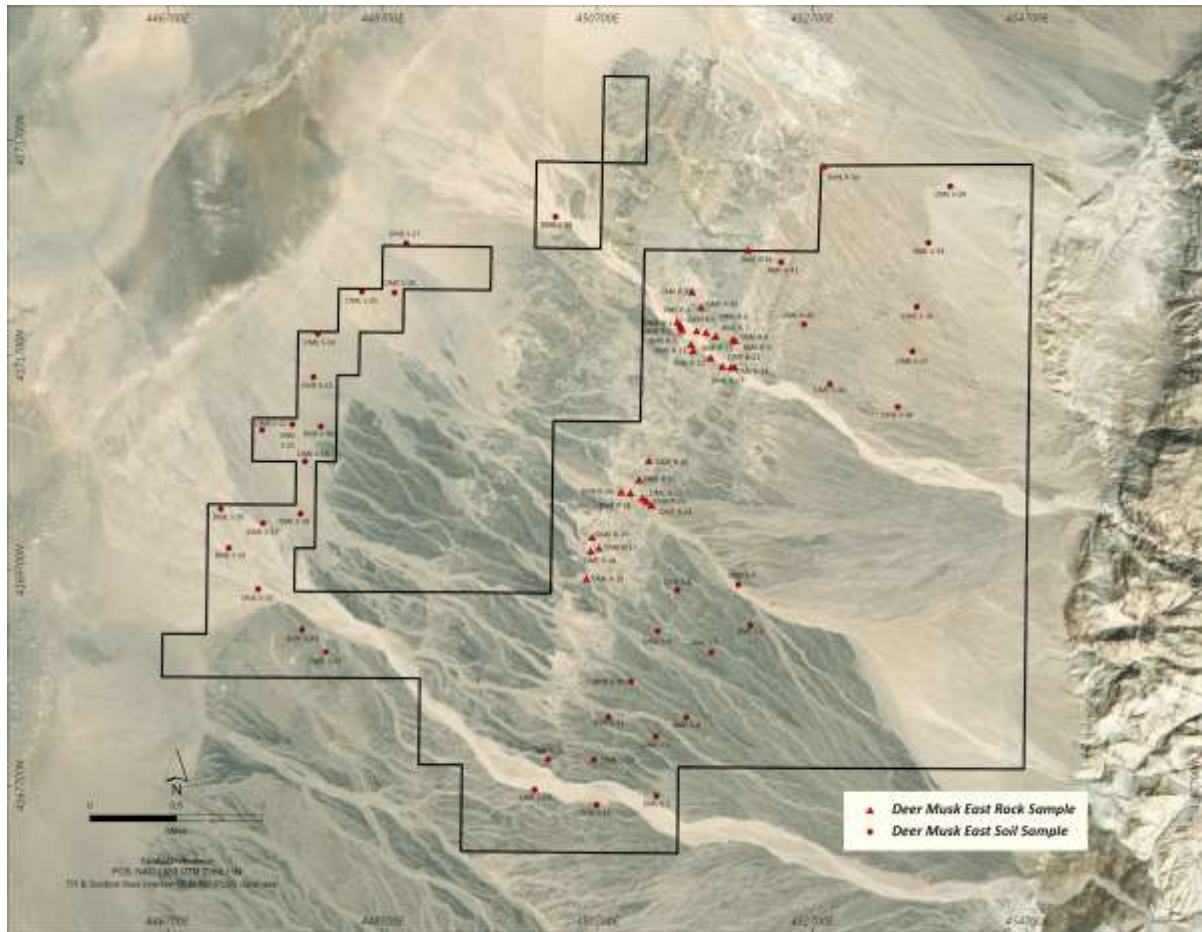
#### 9.1.1 Field Methods

The DME soils can be classified generally in two groups, upland soils and distal soils (Watson, 2021). The upland soils are found on the upper alluvial fans, are relatively thin and very rocky, and have more developed soil. Poorly developed distal soils occur on the finer-grained distal portions of the of the fans and sporadically show lacustrine inundations.

All soil samples are from either the B or C soil horizons (reddish rust-colored soils). Sample depths were from between 50-90 cm (20-36 in) deep. All samples were taken from drainages in the alluvial fans. All samples were taken from incised drainages.

Advanced Geologic Exploration ("AGE") collected 40 soil samples from the distal and upland alluvial fans. Thirty-eight of these samples were on the property and are shown in Figure 14. A power auger with a 6" wide x 36" long auger shaft was used in the distal soils to advance the holes into the subsurface. Upland soil pits were dug with a prybar and shovel until the desired depth. A shovel was then used to clean out the hole such that only the B or C horizon soils were sampled. A 30-mesh screen was used to classify the material, then placed in pre-labeled Ziplock sample bags. Labeled survey flags were tied to nearby brush and GPS points were logged. The soils characteristics were not specifically logged, however, some notes were taken for general sampling references. Once the samples were obtained, they were stored at the AGE field warehouse in Goldfield, Nevada. Upon field work completion, the samples were taken to the AGE corporate office in Chester, California, sorted, and cataloged.

Figure 14. DME Soil and Rock Chip Sample Locations (Watson, 2021).



### 9.1.2 Results

Every sample had measurable amounts of lithium ranging from 42 – 134 ppm (see Table 3). Four samples had lithium assay values in the triple digit ppm range, two of the which came from the northeast fan complex (DME S-37, S-40). One sample from the southeast fan (DME S-12) contained Li 104 ppm. The sample average from samples on the property was Li 65.4 ppm.

There is no apparent pattern to the sample other than to reinforce the fact that lithium in the east valley soils has contributed to the enrichment in the Clayton Valley deposits. Note that a pattern is not really expected, nor are higher grade lithium values, as the soil samples are extrapolated to be part of an alluvial fan of a mix of eroded material from the adjacent Clayton Ridge.

Table 3. Soil and Rock Sample Analyses (Watson, 2021).

Deer Musk East Samples Lithium Values					
Soil			Rock		
Count	Sample Number	Li (ppm)	Count	Sample Number	Li (ppm)
1	DME S-1	NI*	1	DME R-1	76
2	DME S-2	58	2	DME R-2	43
3	DME S-3	92	3	DME R-3	63
4	DME S-4	88	4	DME R-4	51
5	DME S-5	74	5	DME R-5	93
6	DME S-6	63	6	DME R-6	31
7	DME S-7	87	7	DME R-7	72
8	DME S-8	76	8	DME R-8	43
9	DME S-9	50	9	DME R-9	78
10	DME S-10	49	10	DME R-10	68
11	DME S-11	61	11	DME R-11	68
12	DME S-12	104	12	DME R-12	109
13	DME S-13	56	13	DME R-13	39
14	DME S-14	55	14	DME R-14	29
15	DME S-15	50	15	DME R-15	120
16	DME S-16	51	16	DME R-16	74
17	DME S-17	45	17	DME R-17	98
18	DME S-18	67	18	DME R-18	79
19	DME S-19	62	19	DME R-19	99
20	DME S-20	67	20	DME R-20	78
21	DME S-21	65	21	DME R-21	109
22	DME S-22	60	22	DME R-22	183
23	DME S-23	54	23	DME R-23	105
24	DME S-24	52	24	DME R-24	88
25	DME S-25	48	25	DME R-25	80
26	DME S-26	53	26	DME R-26	94
27	DME S-27	NI*	27	DME R-27	NI*
28	DME S-28	48	28	DME R-28	NI*
29	DME S-29	54	29	DME R-29	NI*
30	DME S-30	42	30	DME R-30	129
31	DME S-31	65	31	DME R-31	109
32	DME S-32	50	32	DME R-32	NI*
33	DME S-33	48	33	DME R-33	220
34	DME S-34	88	34	DME R-34	63
35	DME S-35	NI*			
36	DME S-36	67			
37	DME S-37	100			
38	DME S-38	76			
39	DME S-39	59			
40	DME S-40	134			
41	DME S-41	69			
<b>Max</b>		<b>134</b>	<b>Max</b>		<b>220</b>
<b>Min</b>		<b>42</b>	<b>Min</b>		<b>29</b>
<b>Ave</b>		<b>65.4</b>	<b>Ave</b>		<b>86.4</b>

\*Note that NI in the above table represents samples that were not included in the table or averaged because the samples were outside the DME property boundary.



## 9.2 Rock Samples

Rock samples were obtained from prominent hills of uplifted Miocene sediments that extend from the southern margin of the DME claim block on section 17, T 3S, R 40E in a southwest – northeast direction and extend roughly 0.75 mi north of the DME property.

### 9.2.1 Field Methods

A total of 34 samples were collected from bedrock exposure incised by alluvial washes. Thirty-one of these samples were taken from locatoin on the property and are included in Figure 14. No bedrock exposures were seen south of DME R16. Labeled survey flags were tied to brush and logged by GPS.

The samples were stored at the AGE field warehouse. Upon field work completion the samples were taked to the AGE corporate office in Chester, CA where they were sorted and catalogued. Standards and blanks were obtained from Moment Exploration Services Inc. of Elko, Nevada, and inserted into the sample string. Three standards and blanks were mixed mixed in with the samples and labeled DME S-A or DME S-B, respectively.

### 9.2.2 Results

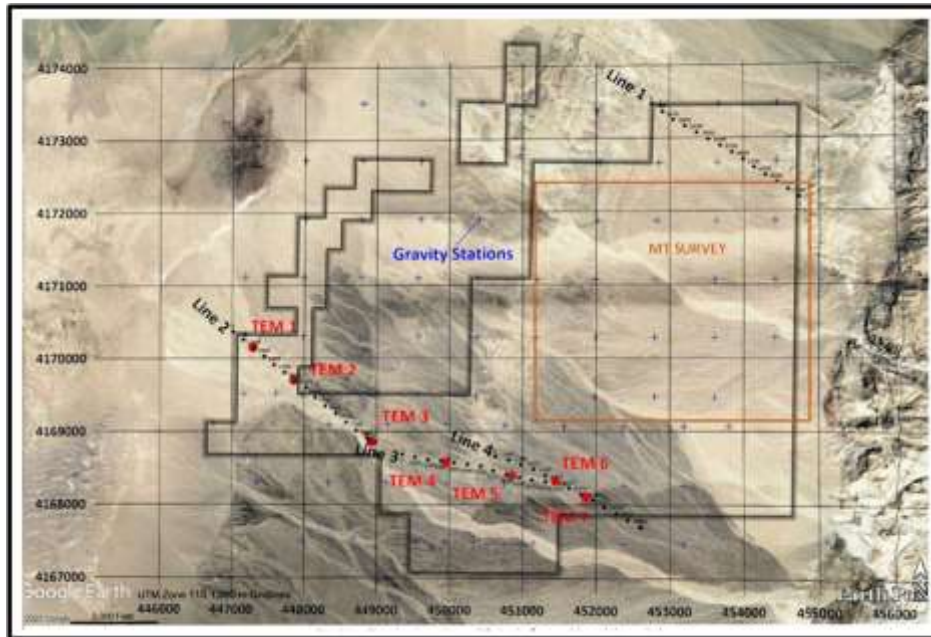
The samples all contained low lithium values, which ranged from 29 ppm - 220 ppm (see Table 3). The average sample value was Li 86.4 ppm. On average the rock samples, all Tertiary in age, contain 32% higher lithium content than the soil samples.

## 9.3 Geophysical Studies

Advanced Geoscience, Inc. (“AGI”) was contracted to complete gravity, seismic reflection and transient electro-magnetic geophysical surveys (TEM) on the DME property to identify subsurface structure, stratigraphy and potential brine aquifers. AGI mobilized various geophysical survey crews to Clayton Valley in May and June, 2021. The seismic reflection and gravity surveys were complete May 22 to May 27, 2021 The TEM resisitivity surveys were completed June 24 to June 27, 2021.

Zonge International was contracted to complete a magneto-tellurich (MT) survey on the eastern portion of the DME claims in March 2022.

Figure 15. Gravity, Seismic, TEM and MT Station Locations on the SME claims (Olsen, 2021).



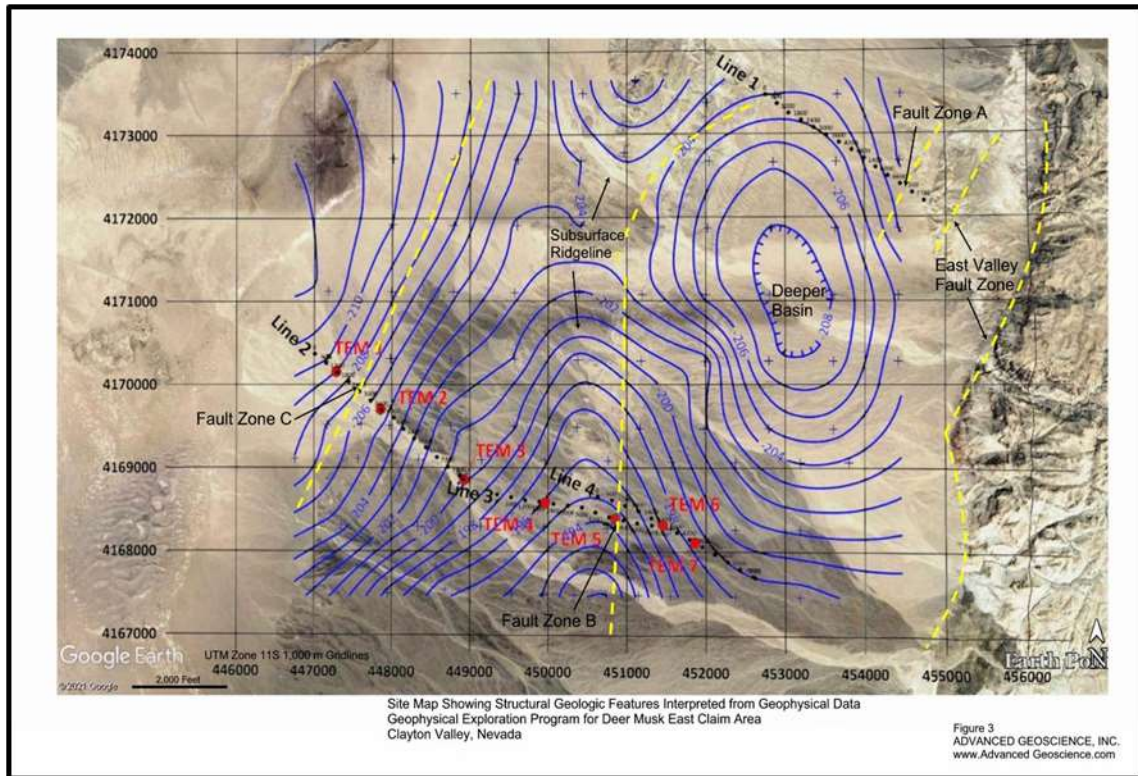
### 9.3.1 Bouguer Gravity Survey

#### 9.3.1.1 Field Methods

The gravity surveys were performed using 85 gravity stations positioned across the claim area as shown in Figure 15. These gravity stations were located and measured by AGE, under the direction of AGI. AGE assisted AGI with the set up and planning for these gravity measurements. A L&R Aliod Gravity Meter was set up to measure the relative gravity field at each station. The measurements were made across various looped patterns of gravity stations during 2 to 3-hour periods to make beginning and ending measurements at a local base station set up within each loop. This “looping” procedure was later used to remove gravity meter instrument drift and tidal variations from the gravity measurements. At each station the time of the gravity measurement was recorded together with the GPS latitude, longitude, and elevation.

After these relative gravity measurements were completed at all 85 stations the gravity meter was brought to the Tonopah Airport where the nearest International Gravity Standardization Net 1971 (IGSN71) absolute gravity station was located. A relative gravity measurement from this station was then recorded and the gravity meter was brought back to the claim area to record additional measurements at selected local base stations. These measurements were later used to convert the relative gravity data at all other stations to absolute gravity data.

Figure 16. Bouguer Gravity Map of DME Property (Watkins, 2021 modified after Olson, 2021).



### 9.3.1.2 Results

The gravity survey identified a central gravity high “saddle”, a deeper low immediately to the east and sloping contours to the west into Clayton Valley (Olson, 2021, Figure 16). The overall thickness of the Tertiary unit is greater in the center of the claim area between Lines 1 and 4. The saddle and west basin most likely represent buried Miocene Esmeralda Formation as a result of normal faulting and block rotation.

## 9.3.2 Seismic Reflection Survey

### 9.3.2.1 Field Methods

The seismic reflection data were recorded by AGI along the four northwest-to-southeast survey lines shown in Figure 1, designated as Lines 1, 2, 3, and 4. The survey lines were positioned across the uplifted playa lake deposits of the Esmeralda Fm on the east side of Clayton Valley. The orientation of these survey lines crossed the north- northeast structural trend of faulting. Line 1 was positioned along a 2.4 km (1.5 mi) traverse. Lines 2, 3 and 4 followed a combined 6.6 km (4.2 mi) traverse starting on the west edge of the uplift area and extended to the southeast. The data recording and processing procedures were set up and performed by AGI to provide reflection imaging of the upper 460 m (1,500 ft) with near-surface resolution.

AGI used a Seistronix, Ltd. EX-6, 144-channel data recording system to record the seismic data. The EX-6 system was connected to multiple, overlapping 126-channel geophone receiver arrays ("spreads") set up along Lines 1, 2, 3, and 4. Each geophone spread consisted of 40-Hertz (lower ramped cut-off frequency) geophones spaced 20feet apart. The total lengths of each of geophone line, set up along the survey lines, were: **Line 1:** 2,374 m (7,790 ft), **Line 2:** 2,448 m (8,030 ft); **Line 3:** - 2,155 m (7,070 ft); and **Line 4:** 2,228 m (7,310 ft).

A 91 kg (200 lb.) accelerated weight drop (AWD) mounted on the rear of a 4WD truck was used to generate the seismic waves. The AWD used back pressure from a nitrogen gas cylinder to impact a metal plate held to the ground by the rear weight of the truck.

Several impacts were made at each source point and the recordings from each impact were summed together to increase the amplitude of reflections and attenuate random noise from stronger wind gusts.

The first source point started 3 m (10 ft) off the first geophone position and then advanced down the survey line between the geophone positions. The last source point was positioned 10 feet beyond the last geophone. After the source points moved past the center of each 124-geophone spread, the first part of the geophone array was picked up and shifted down the line in increments 36 to 48 geophone channels. The geophone shifting was made after the source points moved 500-600 feet past the centerline of each 126-channel array channels. These procedures were used to record reflection data sets with maximum 60-fold subsurface coverage with 3 m (10 ft) common-midpoint (CMP) reflection spacing.

The reflection surveys recorded a total of 308 field records for Line 1, 323 records for Line 2, 283 records for Line 3, and 296 records for Line 4. Each field record was recorded with a 3.0-second record length and 0.5-millisecond sampling rate with 24 bit analog-to digital resolution. After the reflection surveys were completed. the UTM coordinates and elevations of the distance stationing set up along Lines 1 to 4 were measured and the location data recorded by AGI using a survey grade NAVCOM RTX global positioning system.

The seismic waves were transmitted into the ground at "source points" positioned mostly at 6 m (20 ft) intervals along the geophone spreads. These seismic wave vibrations were recorded by the EX-6 system into each 126-channel geophone spread

Figure 17. Seismic Line 1 on DME property (Olsen, 2021).

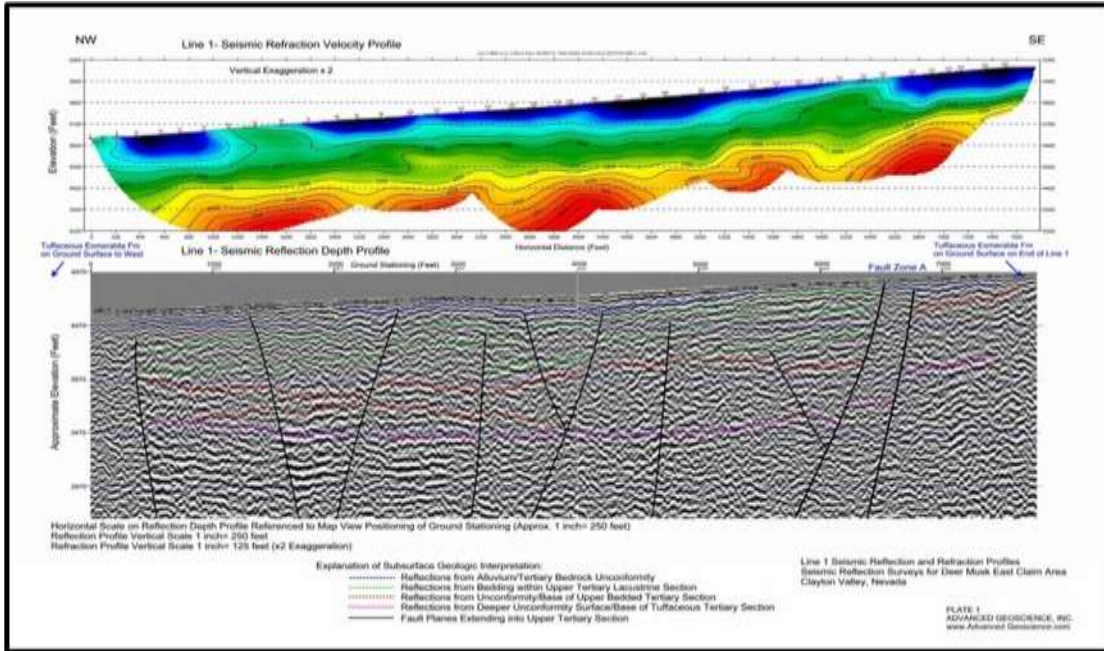


Figure 18. Seismic Line 2 on DME property (Olsen, 2021).

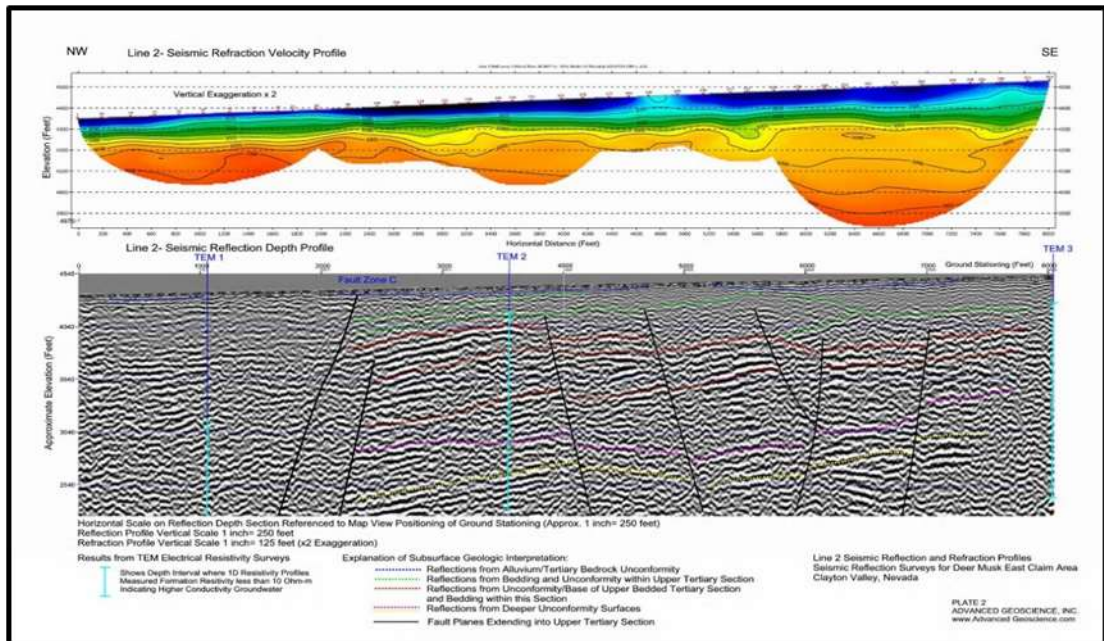


Figure 19. Seismic Line 3 on DME property (Olsen, 2021).

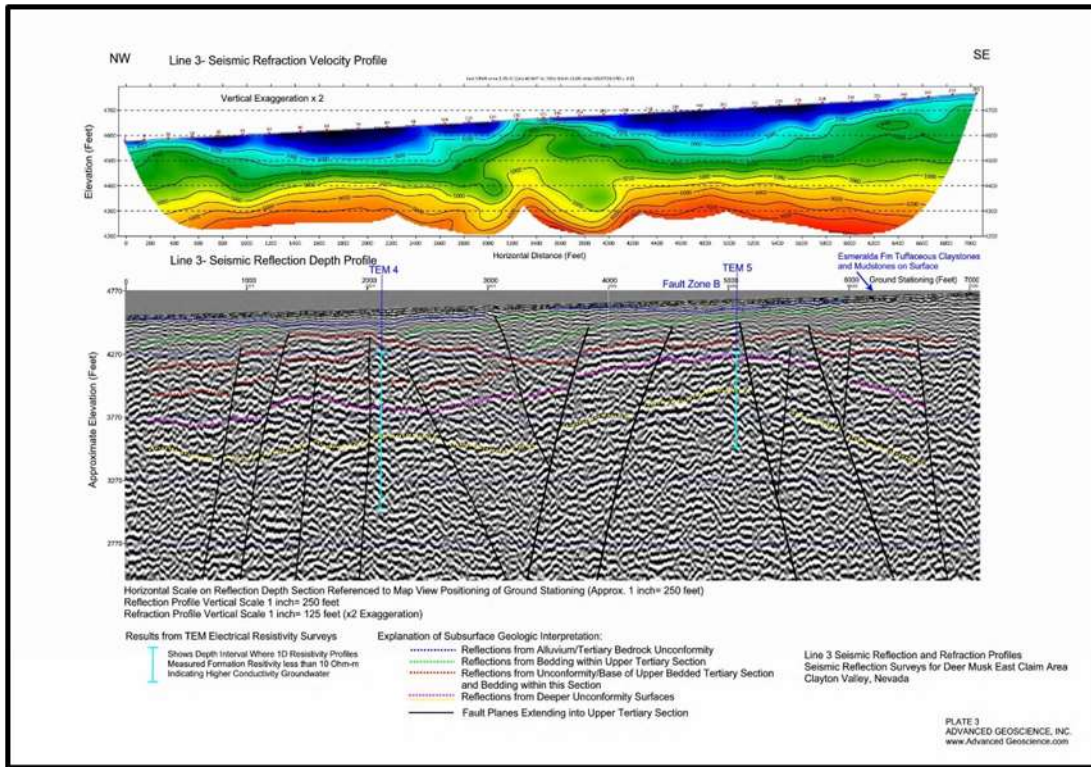
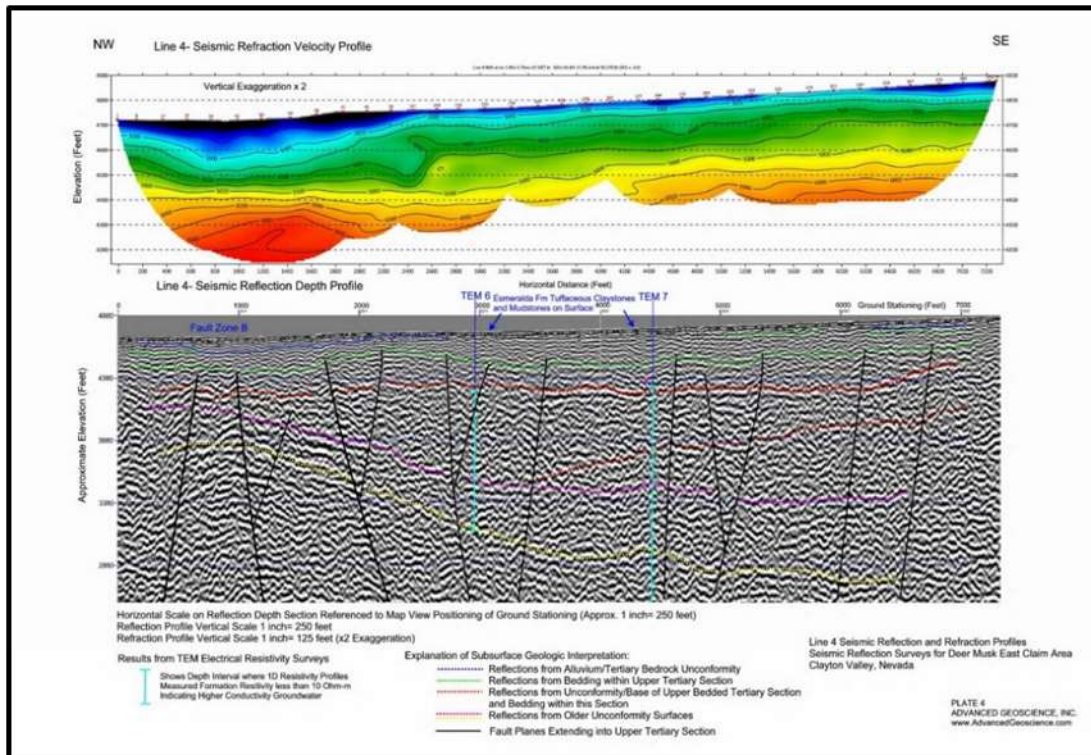


Figure 20. Seismic Line 4 Profile on DME property (Olsen, 2021)



### 9.3.2.2 Results

The seismic reflection profiles (Figure 17-20) show interpretations of the subsurface stratigraphic boundaries for the Alluvium – Upper Tertiary unconformity (blue dashed line), bedding within the upper Tertiary unit (green dashed line), base of the upper Tertiary unit (red dashed line) and the contact of the Tertiary tuffaceous unit and the deeper pre-tertiary units (magenta dashed line).

The green and red dashed line reflections from the west dipping bedding units appear to merge downward onto deeper surfaces, a pattern associated with transgressive and regressive lake shorelines (Olson, 2021). The maximum thickness of the Tertiary lacustrine unit between lines 1 and 4 are estimated to be 427 m - 488 m (1,400 ft. – 1,600 ft).

AGI identified three areas of faulting on the DME claims. Fault Zone A is a series of faults with large displacement and down-dropped to the west that has displaced the Tertiary units (Figure 16). This zone is associated with the East Clayton Valley fault zone, the southwest – northeast escarpment in Figure 16.

Fault Zone B is a pre-tertiary ridgeline high (central core uplift of Watson, 2021), that runs through the middle of the claim area and the gravity high.

Fault Zone C is a larger displacement down-to-the-west fault that separates the deeper Clayton Valley basin from the uplifted former playa lake (claim area).

## 9.3.3 Transient Electro-Magnetic Survey (TEM)

### 9.3.3.1 Field Methods

AGI completed the TEM resistivity surveys at seven locations positioned along Lines 2, 3, and 4 designated, as TEM 1 through TEM 7 and shown in Figure 20. The measurements were performed with a Genomics, Ltd TEM57 MK2A transmitter powered by a 2kW generator and Protem digital receiver with mid-frequency receiver coil. The equipment was set up a 200 by 200 m (656 by 656 ft) square wire transmitter coil positioned near the center of the transmitter loop. For each TEM sounding the conduction resistivity tested the upper 500+ m (1,640 ft). Because of the absence of background electromagnetic noise and the consistency in the voltages observed at the end of the lower-frequency decay curves frequency decay curves the depth of resolution for the resistivity soundings could be below 500 m (1,640 ft).

At each TEM sounding location the 200 by 200 m (656 by 656 ft) transmitter loop was set up on the ground surface using GPS positioning. This transmitter loop was used to transmit an on-off pulsed current pattern into the wire loop. This pulsed current pattern induced short time duration electrical “eddy” currents into the earth that were measured during the current off time by a receiver coil positions near the center of the transmitter loop.

The on-off current pattern was repeated several times using 3 different transmitter repetition rates (75, 7.5, and 3 Hertz) with a fixed current at each location ranging from 18.0 to 18.4 amperes.

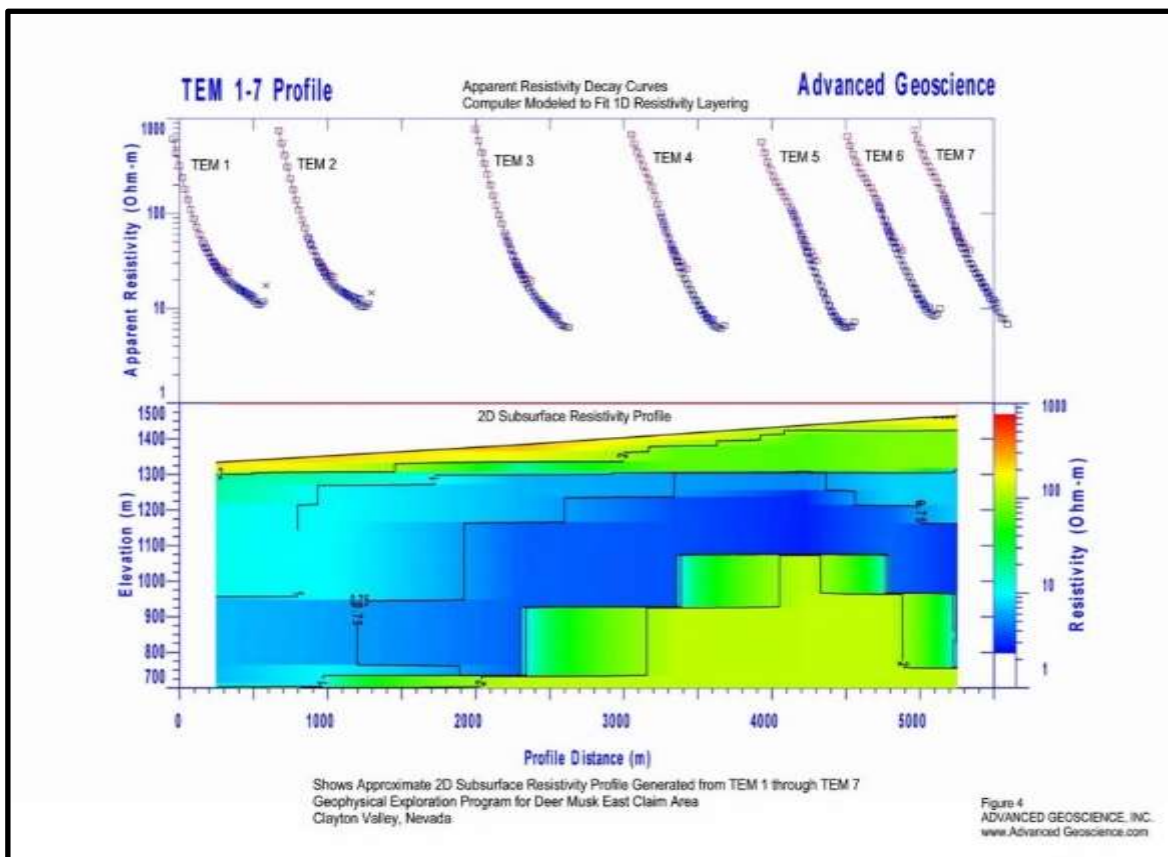
### 9.3.3.2 Results

The TEM data identified a potential low resistivity (0 – 10 ohm-m) brine aquifer between 800m and 1300 m below surface (Figure 21). Groundwater layers near the surface in contact with surficial runoff have formation resistivities between 10-90 ohm-m. The upper groundwater surface starts at depths of 80 ft.-160 ft.

Resistivity profiles TEM 1 – 3 show formation layering below the groundwater surface that decreases to below 10 ohm-m., which indicates higher salinity brine. The lower resistivity conditions continue to below 500 m (1,640 ft) where a higher resistivity surface, possibly the upper pre-Tertiary basement.

Profiles for TEM 4-7 also show a pattern of decreasing resistivity values below 10 ohm-m, and a deeper 100 ohm-m layer. The near surface groundwater layer, however, is thicker (63-85 ohm-m).

Figure 21. TEM Profile on DME Property (Olsen, 2021).





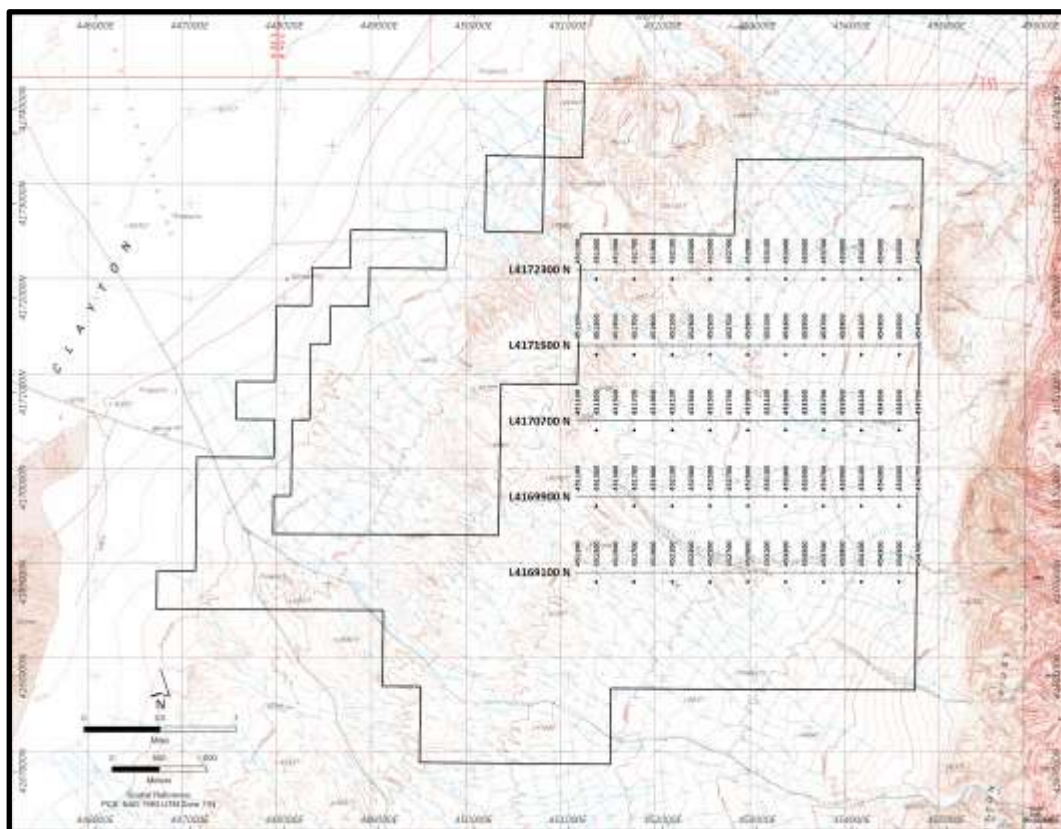
### 9.3.4 Magnetotelluric Survey (MT)

#### 9.3.4.1 Field Methods

Zonge International Inc. conducted a Magnetotelluric (MT) survey for Ameriwest Lithium on the DME claims from February 16 to 18, 2022 (Figure 22). Data were collected along five lines oriented due east over a total of 18 linear km (11.2 linear mi). Electrical field measurements, collected continuously along the lines, and magnetic measurements recorded at approximately 300 m (1000 ft) intervals, resulted in 90 magnetotelluric data points. Data were acquired with Zonge High-Resolution ZEN receivers operating with four or six channels equipped with 32-bit analog-to-digital converters. Horizontal magnetic fields were measured with Zonge ANT/4 magnetometers.

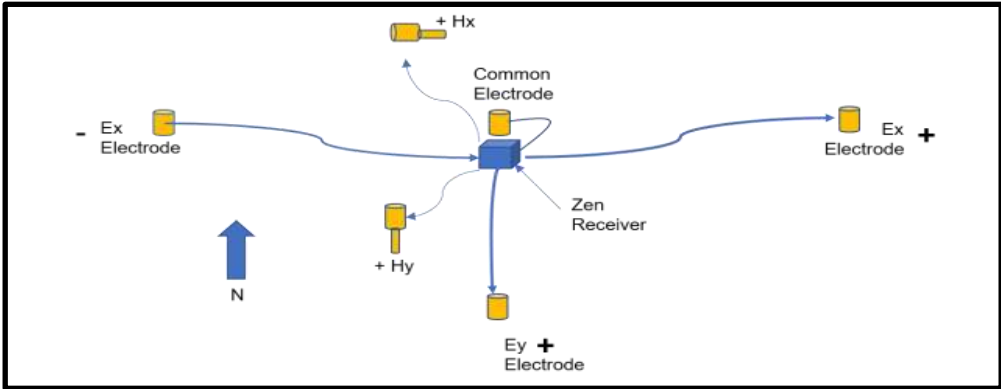
Receivers were calibrated and tested prior to their deployment. ZEN receivers were deployed in a line format (Figure 22). The measured components at each receiver site consisted of two, 200 m (565 ft) Ex dipoles, oriented along the line, measured in both directions from the receiver and a 100 m (328 ft. Ey dipole oriented perpendicular to the line deployed at every other station. The terminating ends of each dipole were wired to a copper sulfate porous pot electrode buried at a depth of approximately 30 cm (12 in).

*Figure 22. DME Magnetotelluric Survey Location (Doerner, 2022).*



Magnetic field measurements were recorded using Zonge ANT/4 antennas that were deployed approximately every 1000 m (3,281 ft) on-line. The antennas were oriented orthogonal to one another. Magnetic antennas were buried in trenches approximately 30 cm (12 in) underground. To minimize sensor vibration due to wind and heat vibration, leveled and checked for azimuth down coordinate system. For all of the lines on this survey the downline Ex and Hx components were oriented at 90 degrees azimuth. The orthogonal Ey and Hy components were oriented at 180 degrees. Positive X was aligned downward and utilizes a Z positive azimuth, with Z+ down. All receiver cases were grounded with a steel rod oriented in time by a GPS antenna. A typical site setup with magnetic component deployed is shown in Figure 23.

Figure 23. Electric Field (Telluric) Configuration with antennas deployed (not to scale).



Zonge personnel used handheld Garmin GPS receivers, models GPSMAP64s or similar, to locate electrode coordinates. The coordinate system used was UTM Zone 11N, WGS84 datum. Time-series data were remote-reference processed with a synchronous local time-series data set to diminish the effects of cultural noise observed on the survey grid. The remote reference for all lines was located approximately 35 km (21.7 mi) northeast.

Figure 24. Line 4169100N 2D Inversion Resistivity Section (Doerner, 2022).

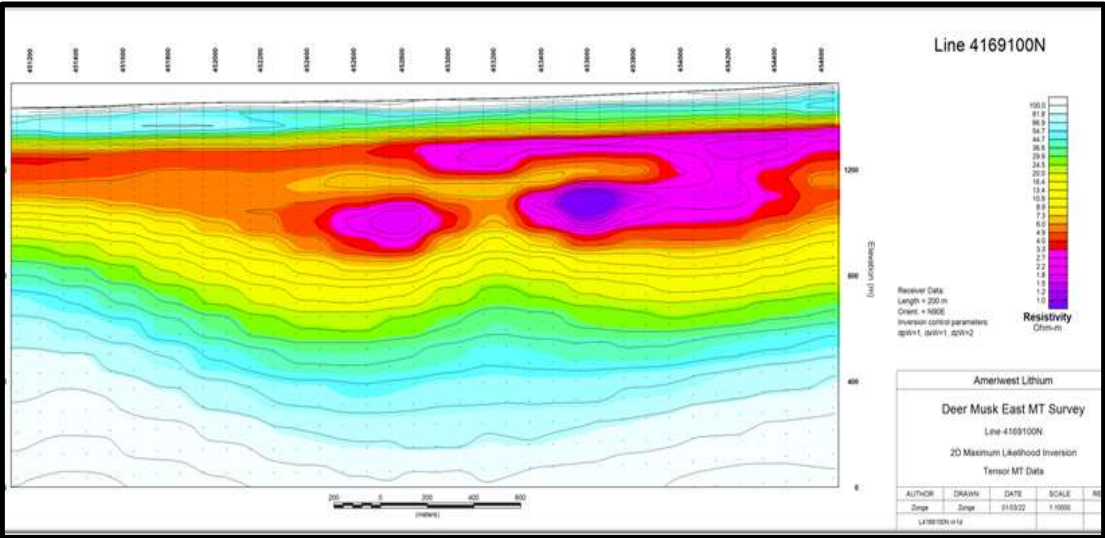


Figure 25. Line 4169900N 2D Inversion Resistivity Section (Doerner, 2022).

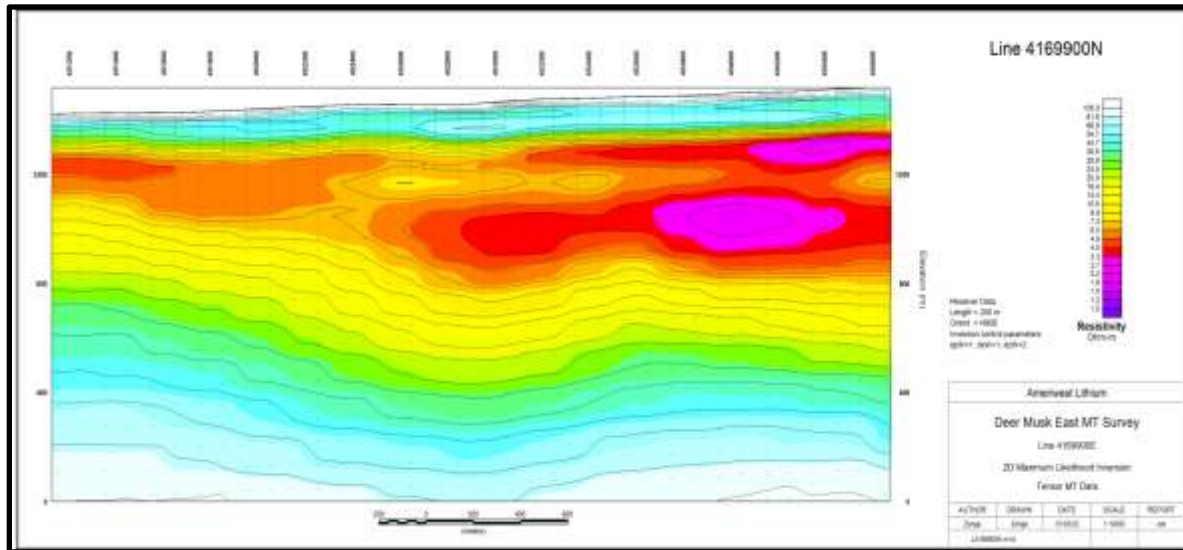


Figure 26. Line 4170700N 2D inversion resistivity section (Doerner, 2022).

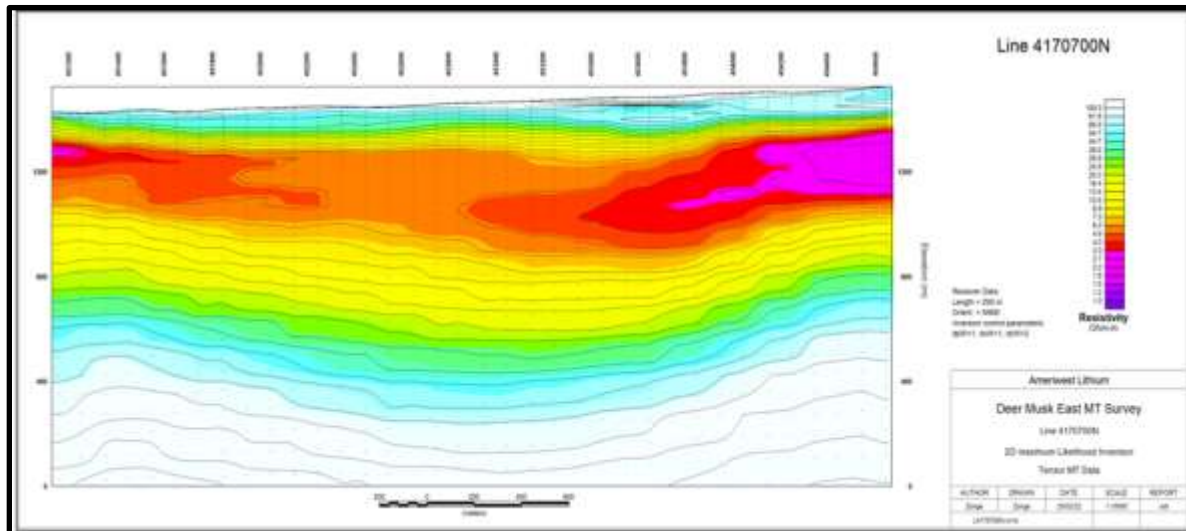


Figure 27. Line 4171500N Inversion Resistivity Section (Doerner 2022).

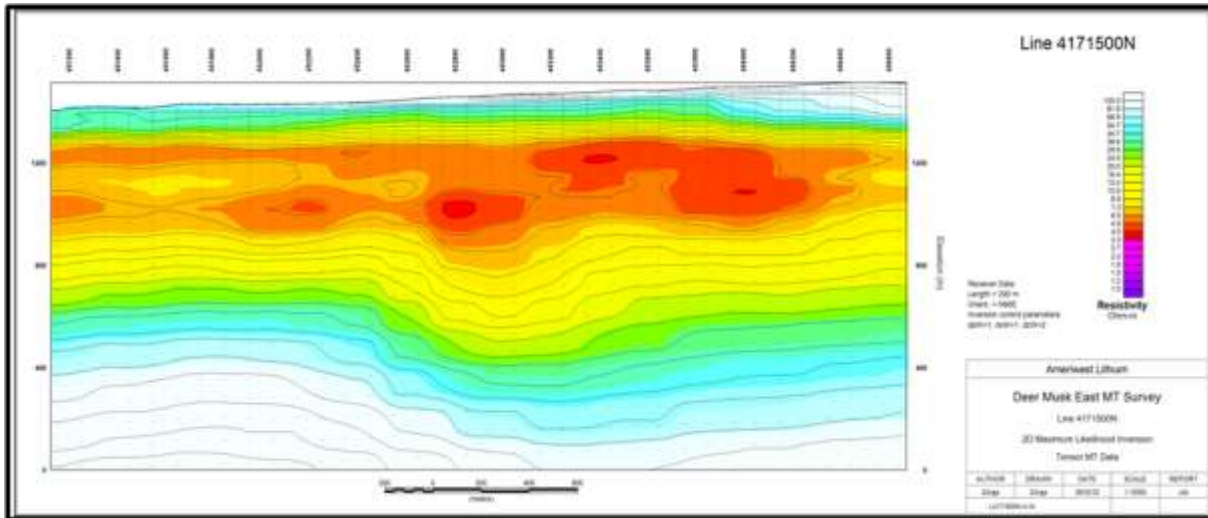
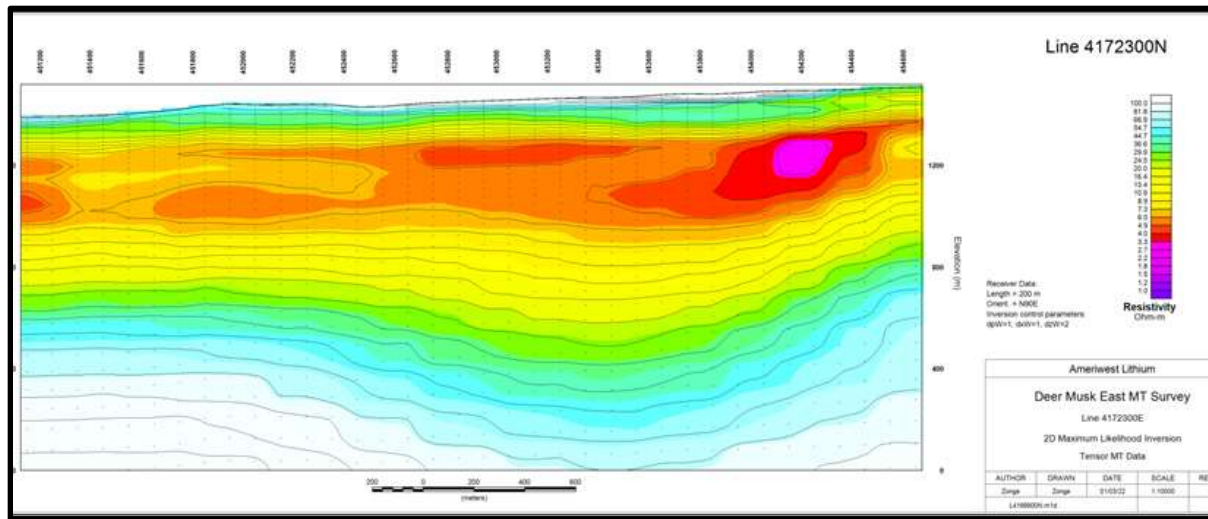


Figure 28. Line 4172300N 2D inversion resistivity section (Doerner, 2022).



### 9.3.4.2 Results

The magnetotelluric survey corroborates the findings of the TEM survey. High resistivity fresh/surface recharge sits above low resistivity brine in the gravity low basin on the eastern half of the claims. The brine area between Lines 4169100N and 4170700N show more intense conductivity. The apparent brine pool (10 ohm-m and lower) is manifested by orange, red and purple surfaces in 2-D sections of all lines (Figures 24-28).

## 10 Drilling

No drilling has been completed on the property to date.

## 11 Sample Preparation, Analyses and Security

### 11.1 Sample Preparation

Standards and blanks were obtained from Moment Exploration Services, Inc. of Elko, Nevada, and inserted into the sample string. Three standards and three blanks, for a total of 6 additional samples, were mixed in with the samples and labeled DME S-\_A or DME S-\_B, respectively. All samples were delivered in person to ISO 9001 and ISO/IEC17025-17025 accredited ALS Laboratories in Reno, Nevada for analysis. All samples were prepared using ALS's PREP-31 sample preparation process, which includes drying, crushing to 70% less than 2mm, riffle splitting off 250 grams, and pulverizing the split to better than 85% passing 75 micron.

### 11.2 Analyses and Security

Each sample was analyzed using ALS's ME-MS61 analytical method which uses a Four Acid Digestion and Mass Spectrometry - Inductively Coupled Plasma (MS-ICP; method ME-MS89L). All samples were analyzed for 51 elements. Lithium was the most important element and the discussion below is specific to those results.

## 12 Data Verification

Sampling and security protocols (Section 9.2.1) were reviewed with the contractor, AGE. The author reviewed the sample preparation method, 40 certificates of analysis and spreadsheet data from the ALS Reno laboratory. In the author's opinion the quality of the data collected is wholly adequate for the purposes of early-stage exploration of the property as laid out in this report (pursuant to item 12(c) of Form 43-101F1).

The author verified the geophysical data by reviewing the report by the original data collectors, Mark G. Olson and Bill Doerner. Mark G. Olson, P.Gp., P.G., C.H.G., is the Principal Geophysicist and Geologist with Advanced Geoscience, Inc. Bill Doerner is the Senior Geophysicist with Zonge International, Inc.

## 13 Mineral Processing and Metallurgical Testing

The property is in the early stages of exploration and no mineral processing or metallurgical testing has been performed.

## 14 Mineral Resource Estimates

The property is in the early stages of exploration and no resource estimates have been completed

## 15 Adjacent Properties

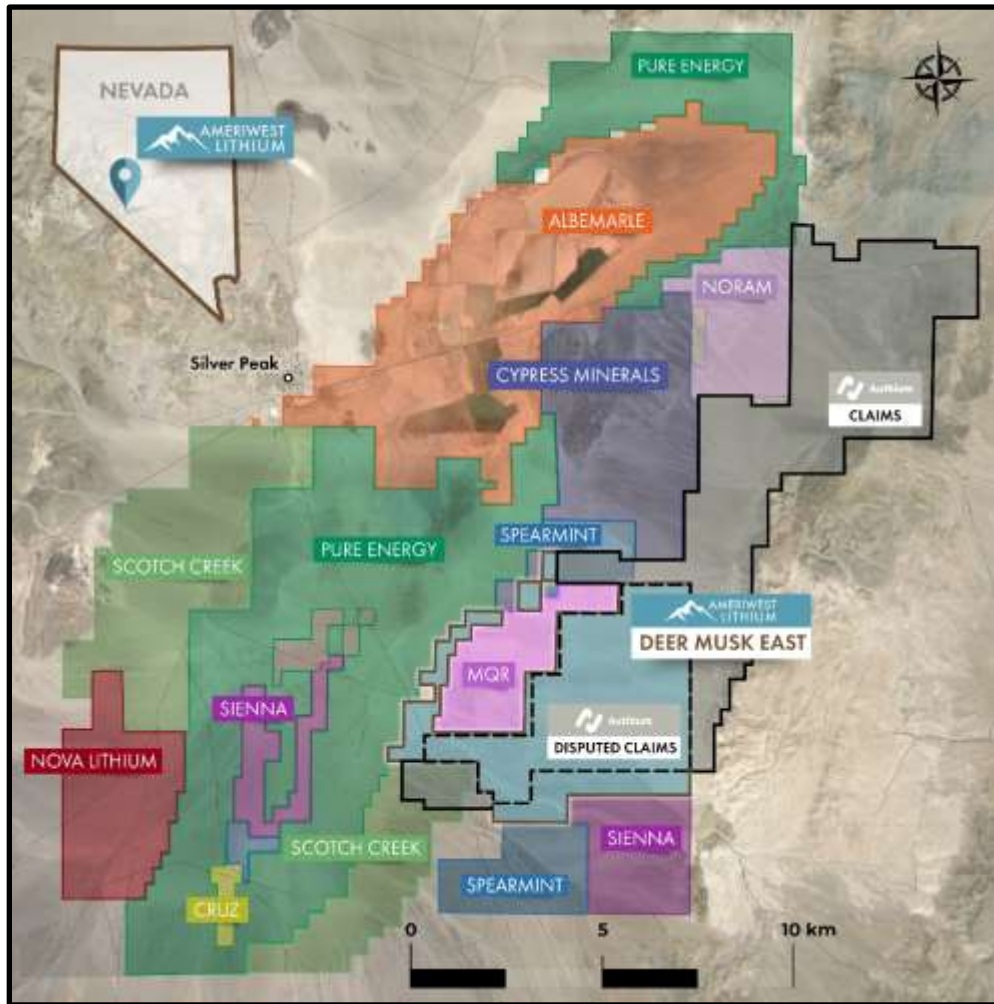
Clayton Valley is home to the only US lithium brine production facility, and numerous companies have been exploring for lithium brine and clay in the surrounding areas, including Ameriwest. Several of the companies' projects are worth noting because of their proximity to the DME project (Figure 29) and are briefly described below. Technical reports are accessible at [www.sedar.com](http://www.sedar.com). ***The author has not verified the information on these properties and the mineralization on adjacent properties is not necessarily indicative of mineralization that may be found on the DME property. No mineral resources or reserves have yet been delineated on the DME property.***

### 15.1 Albemarle Corporation's Clayton Valley Brine Operation

Albemarle's Silver Peak operation is currently the only operating lithium mine in North America. Brine processing is through an evaporation pond and plant complex, which has been in existence since 1967. Previous owners include Newmont (Foote Mineral Company), Chemetall-Foote Corporation and Rockwood Holdings, Inc. Albemarle Corporation purchased Rockwood Holdings, Inc. in 2014 for US\$6.2 Billion, which included the Salar de Atacama brine operation in Chile, a lithium chemical processing plant in North Carolina, and the Silver Peak operation in Nevada.

Production data from the Silver Peak operations is proprietary and unpublished. However, the 2014 Rockwood Holdings Inc. Annual Report cites production in 2013 at 870 metric tons Li. Previous production was reported by Price, Lechler, Lear and Giles (2000) at 25,600 metric tons Li through 1991. Garrett (2004) reported 5,700 metric tons  $\text{Li}_2\text{CO}_3$ , (1,072 metric tons Li) in 1997. The Li concentration in the production brines averaged 400 ppm initially, dropped to 300 ppm in 1970 and 160 ppm in 2001 (Garrett, 2004).

Figure 29. Adjacent Properties, Deer Musk East Lithium Project



## 15.2 Cypress Development's Clayton Valley Lithium Project

The Cypress Clayton Valley Lithium Project consists of 2,197 ha (5,430 ac) east of Albemarle's brine operation. Fayam et al. (2020) report that the western portion of the project area is dominated by the uplifted basement rocks of Angel Island which consist of metavolcanic and clastic rocks, and colluvium. The southern and eastern portions are dominated by uplifted, lacustrine sedimentary units of the Esmeralda Formation. Within the project area, the Esmeralda Formation is comprised of fine grained sedimentary and tuffaceous units, with some occasionally pronounced local undulation and minor faulting. Elevated lithium concentrations, generally greater than 600 ppm, are encountered in the local sedimentary units of the Esmeralda Formation from surface to at least 142 meters (466 ft) below surface grade. The lithium bearing sediments primarily occur as silica-rich, moderately calcareous, interbedded tuffaceous mudstone, claystone, and siltstone (Peek, 2019). Cypress issued an NI 43-101 Prefeasibility Study with effective date August 5, 2020, Amended March 15, 2021.

### **15.3 Spearmint Resources' Clayton Valley Lithium Project**

Spearmint's Clayton Valley Lithium Project consists of 26 contiguous unpatented claims, McGee 30 to McGee 55, and cover 360 ha (890 ac). Drilling on the east half of the Project by Spearmint has discovered a continuous, well mineralized section up to 300 feet thick. The interpreted subsurface distribution of the mineralized claystone includes mixed sediments (tuffaceous mudstone) and green clay. The mixed sediments gradationally overlie the green clays and are positively weathering relative to the green clay below. The majority (greater than 80%) of the mineralized claystone comprise the green clay unit. Spearmint issued a NI 43-101 Technical Report on the McGee Lithium Project with Effective Date June 8, 2022, and Report Date June 14, 2022.

### **15.4 Noram Lithium's Zeus Lithium Project**

The Zeus Lithium Project consists of 150 placer and 140 lode claims that cover approximately 2,400 ha (6,000 ac) where the Esmeralda Formation is exposed in a series of low north-trending ridges. The claims are located 1.6 km (1 mi) east of Albemarle's brine operation and contiguous to the Cypress Development's Clayton Valley Lithium Project to the south. The Esmeralda Formation, in the main area of interest on the Zeus claims, was mostly soft and crumbly siltstones, mudstones and claystones, but contained several thin beds of harder, more consolidated sediments. Most beds were tuffaceous, as evidenced by fine crystal shards. Nearly all of the sediments are calcareous, indicating lakebed deposition (Peek, 2019). The lithium is found in light green, interbedded tuffaceous mudstones and claystones. Leach results on clays were encouraging. Noram published an NI 43-101 Preliminary Economic Assessment on the Zeus Property dated December 8, 2021 (effective date unknown).

### **15.5 Pure Energy's Clayton Valley Lithium Project**

Pure Energy's Clayton Valley Lithium Project is at the pre-development stage and has advanced through various preliminary engineering and processing studies. It is directly southwest and abutting Albemarle's Silver Peak operation. The company entered into an Earn-In Agreement (the "Agreement") with Schlumberger Technology Corporation, a subsidiary of Schlumberger Limited ("SLB"), dated May 1, 2019, whereby the company granted SLB an option in favor of SLB to acquire all of the company's interests in the Project (the "Option"). SLB is operator of the Project and is responsible for all costs associated with the Project and pilot plant. SLB will have three years following acquiring the necessary permits to construct a pilot plant, test lithium brine fluids, and produce lithium products at a determined rate and capacity. The property consists of 950 placer claims totaling about 5,000 ha (12,350 ac). Pure Energy completed an NI 43-101 Preliminary Economic Assessment on its Clayton Valley Lithium Project with Effective Date June 15, 2017, Report Date August 8, 2017, and Revised Report Date March 23, 2018.

### **15.6 Marquee Resources' Clayton Valley Project**

Marquee Resources Clayton Valley Project is more or less surrounded by the DME Property. Marquee drilled one drill hole on the property in 2017 and completed geophysics work in 2022 indicating the presence of lithium clay and brine targets. Public information indicated plans for additional drilling on the property.



## 16 Other Relevant Data and Information

The author is unaware of any additional data or information.

## 17 Interpretation and Conclusions

The physiographic and geophysical interpretation on the DME claims show a structural basin, probably rotated to the west, delineated by a central structural high (core uplift) and three fault zones. The basin is characterized by 15m – 50m (50 ft – 330 ft) thick alluvium, underlying Tertiary lake sediments 427 m – 488 m (1,440 ft – 1,600 ft) thick to a depth of (1500 ft – 1700 ft), with lower Tertiary and basement lithologies below. MT and TEM data identified a low resistivity potential brine target zone between 300 m – 350 m (1,000 ft – 1,400 ft) deep, that is open to the south. A discussion of the surveys follows.

### 17.1 Soil and Rock Data

The soil and rock samples values and locations provided no additional information as the quality, quantity, location or structural controls of lithium on the DME claims. The samples do indicate that lithium is present in low quantities in surface sediments and exposed Tertiary units, and probable sources of concentrated lithium in the valley.

### 17.2 Gravity Data

The gravity survey identified a “high” saddle (identified as the “core uplift” of Watson 2021), an adjacent eastern closed “low”, which consist of thicker and thinner Tertiary units, respectively. Together they may represent a down-dropped and rotated fault block. The overall thickness of the Tertiary unit is greater in the center of the claim area between Lines 1 and 4. The basin represents a potential brine trap.

### 17.3 Seismic Data

The seismic reflection profile interpretations (Figure 17-20) show subsurface stratigraphic boundaries for the Alluvium – Upper Tertiary unconformity, bedding within the upper Tertiary unit, base of the upper Tertiary unit and the contact of the Tertiary tuffaceous unit and the deeper pre-tertiary units. The reflection patterns from the west dipping Tertiary units appear to be associated with transgressive and regressive lake shorelines (Olson, 2021). The maximum thickness of the Tertiary lacustrine unit between lines 1 and 4 are estimated to be 427m-488 m (1,440 ft. – 1,600 ft) and extend to a depth of (1,500 ft -1,700 ft).

Three areas of faulting were interpreted on the claims. Fault Zone A is a series of faults with large displacement and down-dropped to the west that has displaced the Tertiary units (Figure 15). This zone is associated with the East Clayton Valley fault zone, the southwest – northeast escarpment in Figure 15. Fault Zone B is a pre-tertiary ridgeline high (central core uplift of Watson, 2021), that runs through the middle of the claim area and the gravity high. Fault Zone C is a larger displacement down-to-the-west fault that separates the deeper Clayton Valley basin from the uplifted former playa lake (claim area).

## 17.4 TEM and MT Data

The survey profiles 1-3 identified fresh/surface recharge zones and low resistivity brine zones, primarily in the eastern structural basin (Figures 17-21). A groundwater/ surficial runoff zone was identified by 10-90 ohm-m formation resistivity range and is estimated to occur at a depth of 24-48m (80-160 ft). The MT survey corroborates the findings of the TEM survey. High resistivity fresh/surface recharge sits above low resistivity brine in the gravity low basin on the eastern half of the claims. Profiles TEM 4-7 also show that the near surface groundwater layer is thicker (63-85 ohm-m).

Profiles TEM 4-7 also show formation layering below the groundwater surface that decreases to below 10 ohm-m, which indicates higher salinity brine. The brine area between MT Lines 4169100N and 4170700N show more intense conductivity. The apparent brine pool (10 ohm-m and lower) is manifested by orange, red and purple surfaces in 2-D sections of all lines (Figures 23-27).

## 18 Recommendations

There is enough information on the DME to plan for a drilling target based on existing data. However, the TEM and MT data suggest the gravity “low” basin may extend further south of the existing survey and additional MT data is needed to provide an optimal drilling target. Therefore, additional MT lines are recommended in order to locate an optimal drilling target location. This should take 3 months to complete at a cost of \$74,500. Completion of Phase 1 is required prior to commencing with Phase 2.

### **Phase 1 – Additional Geophysics (Magnetotellurics) to Define Drill Target(s)**

Mobilization/Demobilization \$4,500  
MT Data Acquisition - \$5,000 per line-km

1. Extend Line 4169100 – 4 km west	\$ 20,000
2. Additional line to south – 6 km west	\$ 30,000
3. 3-D Modeling of data	\$ 10,000
4. Report	\$ 10,000
5. <u>Mobilization</u>	<u>\$ 4,500</u>

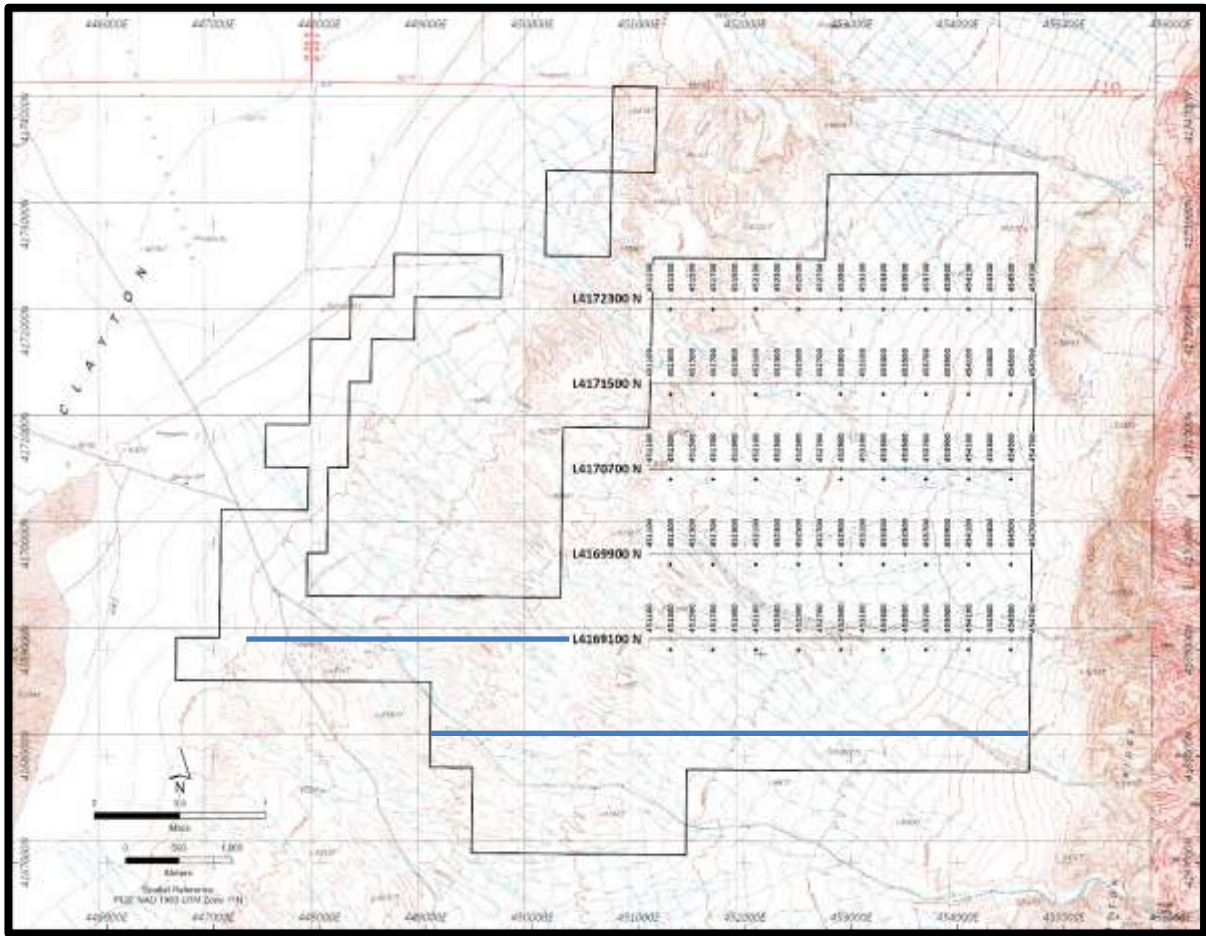
***Total MT Data Acquisition***                      **\$ 74,500**

## **Phase 2 – Drilling Program Development and Permitting**

Phase 2 is the planning, budgeting, and permitting of an initial drill program at DME, on the assumption optimal brine target(s) are delineated in Phase 1. The goal of Phase 2 is to design a drill program, including determining the number of and location of drill holes, depth and diameter of drill holes, drill type, drilling procedures and specification, core logging procedures and specifications, core assaying procedures and specifications, water sampling and assaying procedures and specifications, and development of a budget and schedule for the work. This is expected to include input from drilling, geological, and hydrogeological specialists with experience in drilling lithium brine projects. Bids will be obtained for contractors for project management of the drilling program, permitting, drilling, core logging, water sampling, etc. as required. The permitting assumes a Notice of Intent will be filed with the BLM which allows for surface disturbance of 5 acres or less, including access roads, drill pads, and any other disturbances required. A Dissolved Mineral Resource Exploration Permit will be required from the Nevada Department of Mineral Resources (MDOM). The schedule for drilling will also be developed, depending on the availability of the driller and equipment. It is expected Phase 2 work will take three months to complete. Tasks and costs are outlined below. Based on work completed in Phase 2, Ameriwest will make a decision on whether to proceed with a drilling program at DME.

1. Project Management of Phase 2	\$20,000
2. Water Sampling Specifications/Procedures	\$ 5,000
3. Drilling Specifications/Procedures	\$ 5,000
4. Core Logging/Sampling Specifications/Proc.	\$ 5,000
5. Lab Analytical Specifications/Procedures	\$ 5,000
6. Permitting (NOI and Water Permit)	\$20,000
7. Develop of Budget/Schedule for Drill Program	<u>\$10,000</u>
<b>Total Phase 2:</b>	<b>\$ 70,000</b>
<b>Total Project:</b>	<b>\$144,500</b>

Figure 30. Proposed Phase 1 Geophysical Lines



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## Qualified Person (QP) Certificate

CERTIFICATE OF AUTHOR  
RAYMOND P. SPANJERS, MS, RPG.  
CONSULTING GEOLOGIST  
891 Ridge Vista Road, Box 85  
Gerton, NC 28735  
Telephone: 229-254-7855 Email: [rayspanjers@gmail.com](mailto:rayspanjers@gmail.com)

CERTIFICATE of AUTHOR

I, **Raymond P. Spanjers**, do hereby certify that:

1. I am currently engaged as a Geological Consultant.
2. I am a graduate of the University of Wisconsin – Parkside with a Bachelor of Science in Earth Science (1977), and a Master of Science degree in Geology from North Carolina State University (1983).
3. I am a Registered Professional Geologist (RPG) through the Society for Mining, Metallurgy & Exploration (SME), Number 3041730RM.
4. I have practiced by profession in geology since 1980 and have 42 years of experience in mineral exploration, mining and mineral processing of industrial minerals and lithium brines. I have reviewed, participated in, and reported on numerous mineral brine exploration projects resource appraisals that incorporate geophysical studies, which includes gravity, seismic, several electromagnetic and nuclear methods.
5. I have read the definition of “qualified person” set out in NI 43-101 (“NI 43-101”) and certify that I fulfill the requirements to be a “qualified person” for the purposes of NI 43-101.
6. I am responsible for the preparation of the report titled “NI 43-101 Technical Report Exploration Results for the Deer Musk East Lithium Property, Clayton Valley, Esmeralda County, Nevada, USA”.
7. I visited the Ameriwest Lithium Inc. Deer Musk East property on March 29, 2021 and June 2, 2022.
8. As of the date of this certificate, to the best of my knowledge, information and belief, the Technical Report contains all scientific and technical information for disclosure and is not misleading.
9. I am independent of Ameriwest Lithium Inc. according to the criteria stated in Section 1.5 of NI 43-101.
10. I have read NI 43-101 and Form NI 43-101F1, and the Technical Report has been prepared in compliance with that instrument and form.

Dated this 6th day of February, 2023



*“Raymond P. Spanjers”*  
(Signed and sealed)  
Raymond P. Spanjers