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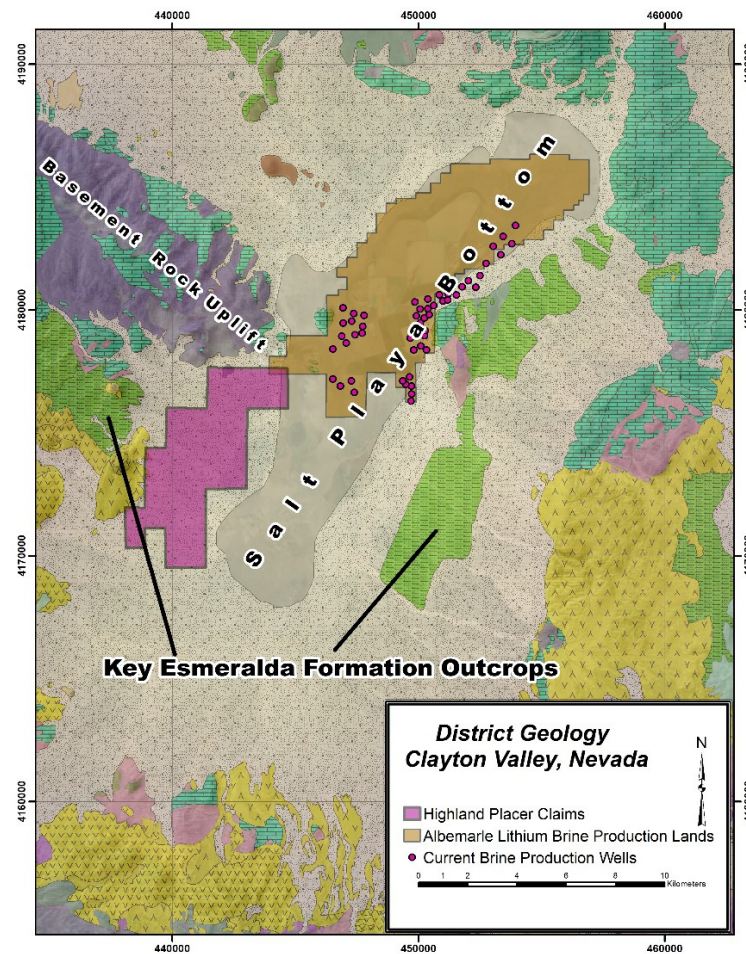
Scotch Creek Ventures Inc.

# HIGHLAND LITHIUM PROJECT NATIONAL INSTRUMENT 43-101 TECHNICAL REPORT

June 2021

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Date June 7th, 2021



## REVISION HISTORY

REV. NO	ISSUE DATE	PREPARED BY AND DATE	REVIEWED BY AND DATE	APPROVED BY AND DATE	DESCRIPTION OF REVISION

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# GLOSSARY

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## UNITS OF MEASURE

Centimeter .....	cm
Cubic centimeter .....	cm <sup>3</sup>
Degrees Fahrenheit .....	°F
Gram .....	g
Part per million (1 ppm = 1 gram) .....	ppm
Acre (1 acre = 43,560 square feet) .....	
Kilometer .....	km
Mile .....	mi
Meter .....	m
Millimeter .....	mm
Percent .....	%

## ACRONYMS AND ABBREVIATIONS

Nevada Mining Claim Number .....	NMC#
Bureau of Land Management .....	BLM
North .....	N
East .....	E
South .....	S
West .....	W
North Northeast .....	NNE
North Northwest .....	NNW
Lithium .....	Li
Calcium .....	Ca
United States Geological Survey .....	USGS
National Instrument .....	NI
Nevada Bureau of Mines and Geology .....	NBM

# SUMMARY

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Scotch Creek Ventures Inc. has requested preparation this technical report on its 100% owned Highland Lithium Property located in the Clayton Valley of Esmeralda County, Nevada. Scotch Creek owns the mineral rights to 298 federal placer claims covering approximately 5960 acres (Figure 1.0). The property is tied onto both the active Silver Peak lithium brine mine owned by Albemarle Corp and to claims owned by junior explorer Pure Energy Resources and their partner Schlumberger Technology Corp.

Albemarle's Clayton Valley lithium production complex consists of a brine production well field and associated concentration and refining infrastructure. This "Silverpeak Lithium Mine" has been in continuous production since 1966 and is the largest lithium producer in North America.

The Highland Lithium project within the south eastern portion of the Clayton Valley and is contiguous with lands owner by Pure Energy Minerals. The valley contains a thick section of lake-bed sedimentary rock units that were deposited within paleo lake Esmeralda a closed basin of late Miocene to recent age. Active faulting continues to down drop the basin against the basement rocks of the surrounding mountain ranges.

The term "closed basin" refers to the nature of the basin in that water enters the basin from precipitation on the surrounding mountains. The waters are trapped inthe basin as no rivers exit the basin, thus it is "closed". Evaporation from the basin over millions of years has concentrated lithium and other salts within ground water and basin filling, volcanic ash rich sediments creating a world class lithium concentration inthe Clayton Valley.

The basin has been completely isolated from massive fresh water run-off and resulting fresh water lake development as recent age, ice sheets melted. This isolation has allowed the basin to remain very saline and has no doubt contributed the preservation of the huge endowment of lithium present in the basin.

This topographic set-up differentiates the Clayton Valley from the majority of other saline playas in Nevada. Numerous other playas in the Clayton Valley region and throughout the western US exhibit a salty surface crust resulting from evaporation of huge volumes of glacial-melt waters in the last 10,000 years. Many of these other salty surfaced playa basins have been explored for lithium brine by drilling in the last ten yearsproducing disappointing results in terms of groundwater and basin fill sediment lithium values.

The Clayton Valley has the right topographic framework to receive lithium from groundwater and surface water sources and to hold it in place, permanently trapped in the basin. The hot, dry climate of the area has acted to continuously concentrate lithium through evaporation in a volcanic ash rich, shallow lake environment.

The ultimate source of the lithium in the Clayton Valley remains very much under investigation by the USGS and other organizations. The most compelling argument is that the lithium has been leached from Miocene age volcanic ash.



Lithium production in the Clayton Valley from 1966 to the present time has been from surface and groundwater lithium brines. Albemarle Corporation is the current operator of the brine well field and associated evaporation ponds and refinery. Albemarle has recently announced that they intend to invest additional money in the basin to increase brine production. Newmont Mines began production in the 1960's, operating the mine under a subsidiary, Foote Minerals

Prior to the recent startup (2015 to present) of numerous other lithium brine and lithium pegmatite mines worldwide lithium production from the Clayton brine field accounted for 3% of worldwide lithium production, an indication of the robust mineral endowment of the basin. Albemarle and previous operators of the brine field have done very limited exploration for additional lithium brine resources in the Clayton Valley. Estimates of current reserves within Albemarle's Silverpeak brine field are not available.

In the period between 2010 and 2016 a number of junior exploration companies staked placer claims surrounding the active mine and began drilling lithium brine targets developed by seismic and electrical conductivity surveys of their claim blocks. The results of these efforts are intriguing. Pure Energy Minerals was successful in defining a lithium brine resource of approximately one million tonnes of lithium carbonate equivalent (LCE). This resource is located along the east margin of the basin.

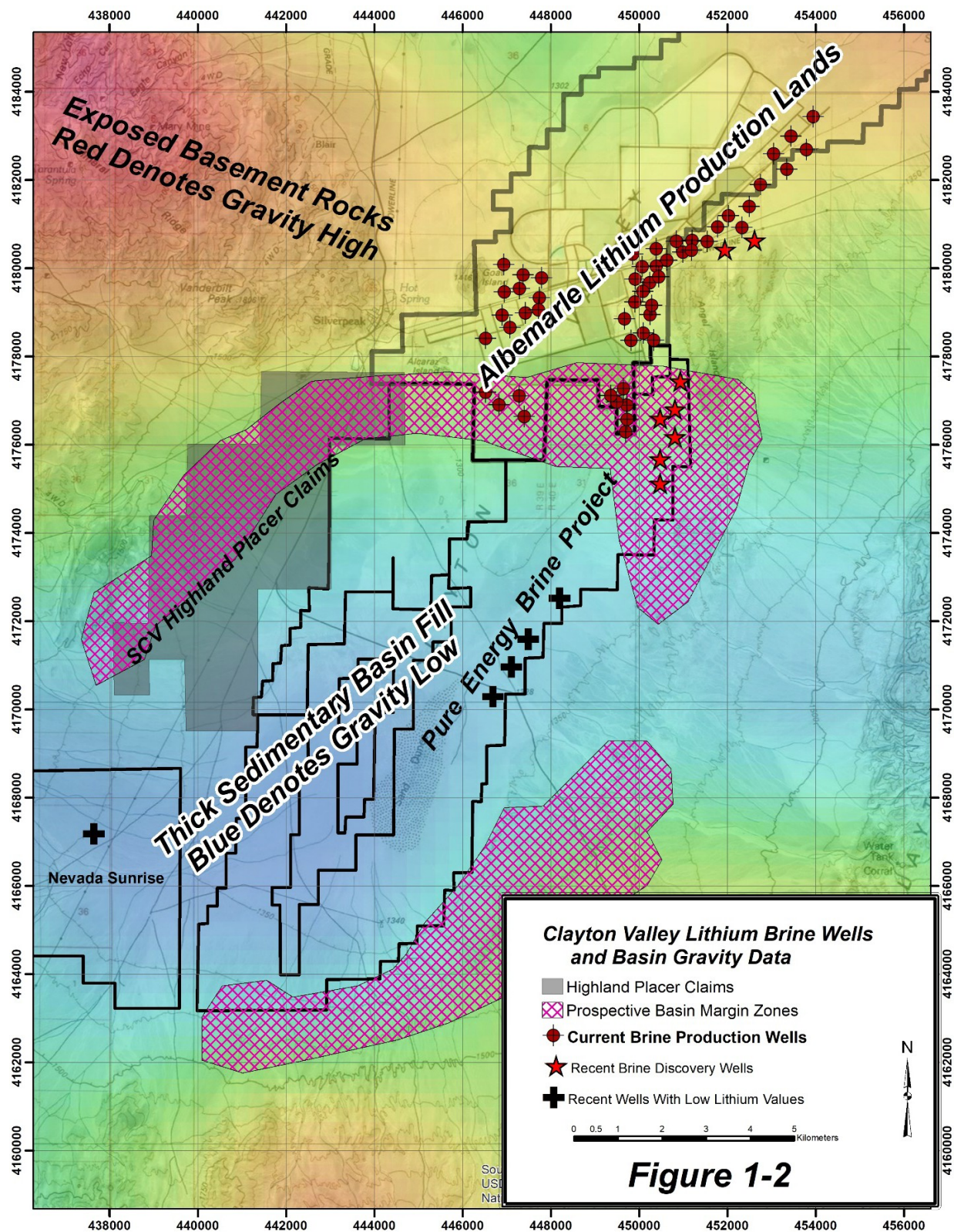
Additionally, Nevada Sunrise Gold Corp drilled several holes into lithium bearing brine in a position north of the Pure Energy discovery area, also along the east margin of the basin.

The intriguing part of these recent brine discoveries is that both came from positions on the margin of the deep central portion of the Clayton basin. Drilling by both Pure Energy and Nevada Sunrise into targets located the deep portions of the basin did not intersect lithium brine. The deep portions of the Clayton are not topographic lows, the term "deep" refers to the portion of the basin with thick sections of low-density, basin fill sedimentary rocks.

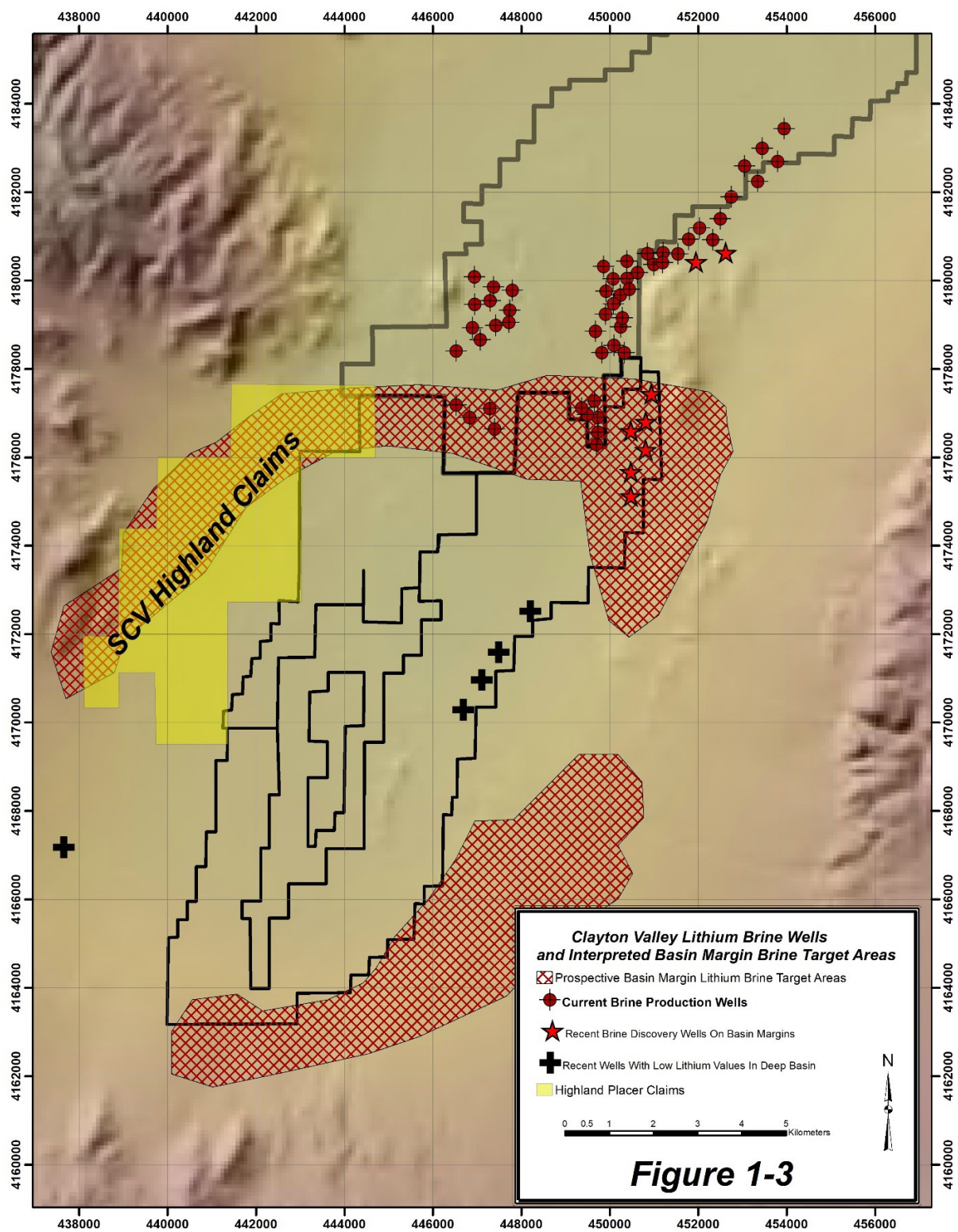
The geologic model used by both Pure Energy and Nevada Sunrise was that lithium brines would be found preferentially where the basin fill is thickest. This model is based on the fact that brines are more dense than dilute groundwater and would, overtime migrate down to the deep subsurface and accumulate.

Without exception, all known lithium brines discovered to date in the Clayton Valley are located in portions of the basin where the sedimentary basin fill units are relatively thin. This positioning of lithium rich brines versus dilute, low lithium ground waters can be clearly seen by overlaying basin topography, basin gravity data and the position successful and unsuccessful well locations. This compilation is presented below (Figures 1-2 and 1-3).









The position of the Scotch Creek Ventures Highland claim block along the western margin of the deep Clayton basin appears well located for exploration for lithium brine. Options for this recommended exploration include detailed gravity surveys, seismic reflection surveys, ground water electrical conductivity survey and drilling. Drilling is the preferred approach due to the detailed data gained by logging the subsurface rock section at the property.

At this initial stage of exploration at Highland it is the authors opinion that drilling is best approach to gain detailed knowledge of the rocks units and character of groundwater in the subsurface of the property. Drilling will also allow for sampling of groundwater in the search for lithium brine horizons.

It is recommended that a pattern of three reverse circulation or HQ core drill holes be completed at Highland. Based on the history of other successful brine exploration and discovery drilling in the Clayton, the depth of the proposed estimated to be between 250 and 450 meters. The estimated cost to complete the recommended four-hole program is \$400,000.

The decision between reverse circulation drill and core drilling must be made. Reverse circulation would provide faster hole completions, especially if the near surface is composed of boulder slope wash. The advantage of core drilling is the detailed subsurface rock type data gained by logging core. Drill rig availability could also impact the final decision.



## 2.0 Introduction and Terms of Reference

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### 2.1 INTRODUCTION

Scotch Creek Ventures. ("SCV") hereby presents a National Instrument 43-101 compliant Technical Report summarizing lithium brine exploration potential for their Highland Lithium Project property located within the Clayton Valley, Esmeralda County, Nevada. The report has been prepared in compliance with the Canadian Securities Administrators' NI 43-101 *Standards of Disclosure for Mineral Projects*.

### 2.2 TERMS OF REFERENCE

The author was retained by SCV to carry out an independent technical review of the Property. The review commenced May 1st, 2021 and continued through to June 7th, 2021.

The author's assignment consisted of:

- Reviewing and summarizing regional and property-scale geologic and geophysical data compiled from public data sources.
- From interpretation of the compiled data, to develop a lithium brine exploration model for SCV use in the initial exploration of the Highland placer claims,
- Preparing a technical report on the Property and
- Making recommendations for future exploration activities on the Property.

### 2.3 SOURCES OF INFORMATION

To prepare this Report, the author has relied dominantly on public data sources from both government geologic studies and from the reported results of other lithium exploration efforts in the basin by private companies.

### 2.4 PROJECT MANAGEMENT AND SITE PRESENCE

The project is at a grassroots stage thus site management will not be required until the recommendations of field work contained in the report are commenced. The author did visit the property during preparation of this report to confirm important facts and inferences resulting from data compilation.

## 2.5 UNITS & CURRENCY

All data compiled into the report was done the using UTM NAD 83 Zone 11 North datum.

Lithium (Li) assay values, where mentioned in this report for comparison of other recent exploration programs in the Clayton Valley (unrelated to SCV), are presented as parts per million (ppm).

Currency amounts for estimated costs of recommended exploration drilling are quoted in US dollars unless otherwise noted.

### 3.0 RELIANCE ON OTHER EXPERTS

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The author prepared this study using a compiled database of public data as well as the resource materials, reports and documents as noted in the text and "References" at the end of this Report.

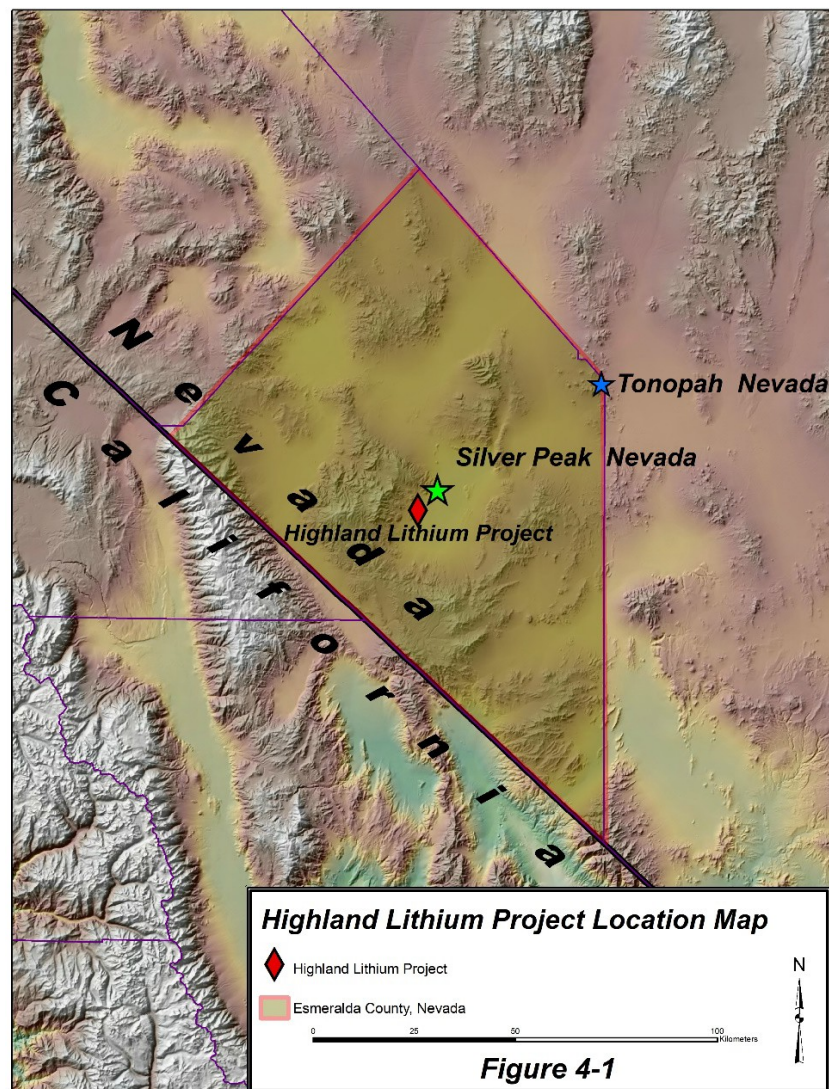
Mineral rights ownership determined and mapped in this report summarizes placer and lode claims data in this report was obtained directly from Bureau of Land Management (BLM) records. All mineral rights owned by Scotch Creek Ventures are in confirmation with the Mining Law of 1872 and are located on public lands administered by the BLM out of the Tonopah Field Office.

A significant amount of lithium exploration work has been carried out in the basin, some in areas adjacent to the Highland claims, these works done by various other competitor companies actively exploring the basin for additional lithium resources have been incorporated into this report. Data from the adjoining Albemarle lands are not available for review.

## 4.0 PROPERTY DESCRIPTION AND LOCATION

### 4.1 LOCATION

The Highland Lithium Project property is centered near 446500 East, 4166000 North, UTM NAD 83, Zone 11 North datum, in central Esmeralda County, Nevada. The location is 180 miles northwest of Las Vegas, Nevada. The regional gold mining town of Tonopah is about 35 miles northeast of the project (Figure 3-1). The small community of Silverpeak lies 1 mile north of the project. The Property lies entirely within Townships, 3S and 4S, Ranges 39 E and 40 E, Mt Diablo Meridian. The Property is accessed off of paved state highway 265 to Silverpeak and from by a well-maintained service road that passes along a public easement through the active lithium brine mine in the basin.



## 4.2 MINERAL RIGHTS DISPOSITION

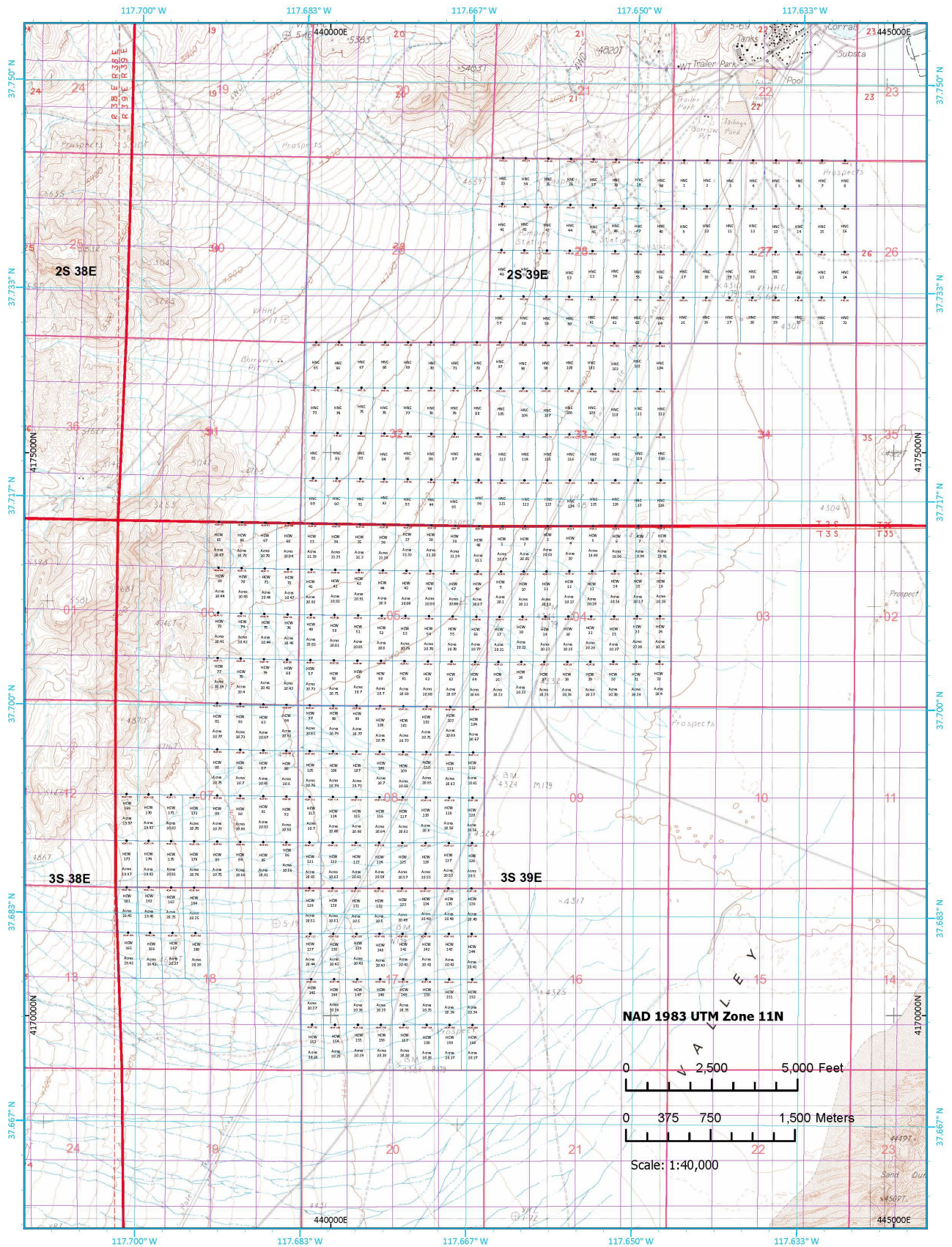
The Highland Lithium Project property consists of 298 placer mining claims covering approximately 5960 acres of land located along the southwest flank of the Clayton Valley. The claims are 100% owned by Scotch Creek Ventures. The claims lie in surveyed territory within portions of Townships 2 South and 3 South, and Ranges 38 East and 39 East, MDM, (Figure 4-2 below).

The claims are properly filed with both Esmeralda County and the Bureau of Land Management and thus are in good standing. Annual filing fees to hold the ground, combined county and federal fees, will total approximately \$7,000. The author is not aware of any additional annual expenditure requirements attached to the property.

The placer claims are all approximately 20 acres in size and have been correctly staked as even, aliquot, divisions of a legal section, as required under placer mine claim regulations. The claims cover approximately 5960 acres of public BLM lands and reserve to Scotch Creek Ventures mineral rights to lithium brines that may exist within the subsurface of the property. The claims tie directly onto preexisting private land owned by Albemarle Corporation and to placer claims owned by Pure Energy Resources.

Minor overlap onto the lands of Albemarle and Pure Energy may reduce to total valid acreage by 100 acres, more or less.







#### 4.3 TENURE RIGHTS

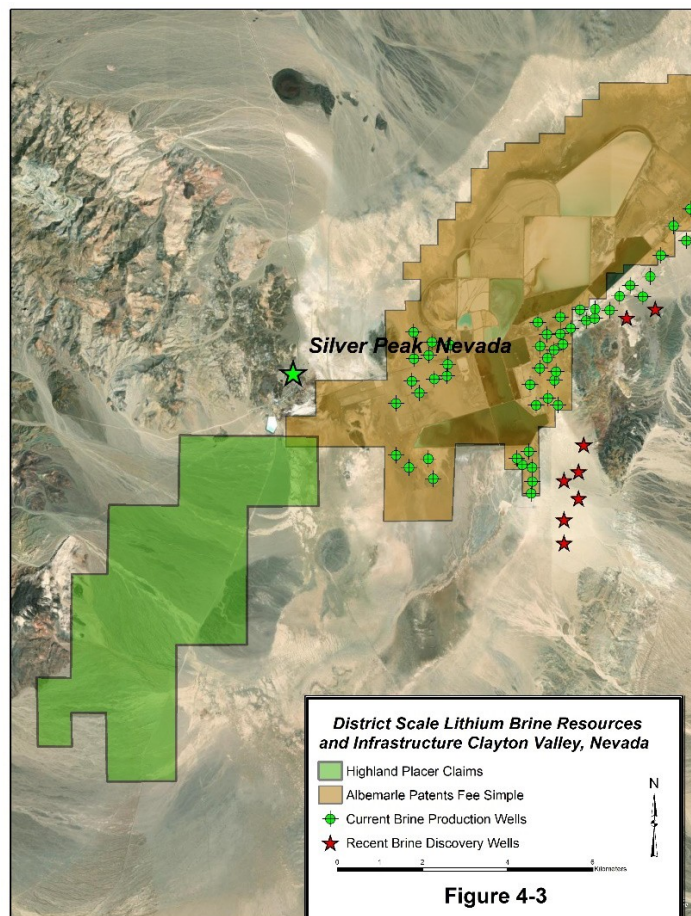
Scotch Creek Ventures owns 298 placer claims as shown figure 4-2 above. The claims are all in good standing with the BLM and Esmeralda County.

#### 4.4 RESOURCES, RESERVES, DEVELOPMENT AND INFRASTRUCTURE

The property is located in the Clayton Valley, Nevada, the site of the only active lithium production in the US. The Silverpeak Lithium Production Complex owned by Albemarle is located 2 kilometers north of the Highland claim block. This Silverpeak lithium brine mine has been in production continuously since the 1960's (Figure 4-3 below).

There are no lithium resources defined on the Highland Lithium Project property at present as the property is at grassroots stage and has not undergone previous subsurface exploration. Recommendations for drilling made in this report are designed to test the subsurface of the claims for the potential presence of lithium bearing brines.

The property lies in close proximity to paved roads, power lines and regional towns and cities that service the mining industry.



#### 4.5 LEGAL SURVEY

The 298 placer claims are survey tied to brass caps of the existing federal land survey in the area. No independent surveys of the claim block have been made. The claims were staked using handheld GPS units.

#### 4.6 ENVIRONMENTAL LIABILITIES

The Highland Lithium Project lies in a "green fields" exploration area. No evidence of previous mineral exploration disturbance was noted during the property field visit. The eastern portion of the property contains areas where refuse from the town of Silver Peak has accumulated for many years. The potential environmental liability to SCV is unknown but is considered by the author to be minor.

#### 4.7 PERMITS

No permits for disturbance related to mineral exploration have been obtained for the recommended exploration work of this report.

Drill exploration for lithium brines in the subsurface of the property, as recommended in this report, will require two permits. One permit will come from the Bureau of Land Management which will detail the proposed drilling activities and contain a requirement of the posting financial bond to ensure proper reclamation is completed in a timely fashion. These "Notice Level Permits" are routinely received within 30 days of application. A financial bond of approximately \$7,000 is anticipated for the recommended drill program.

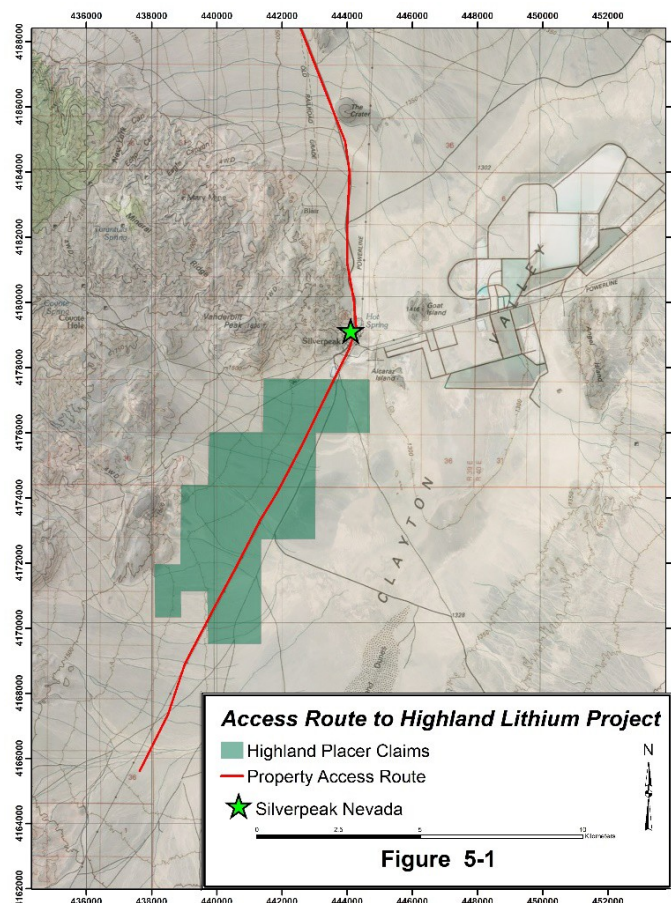
An additional permit from the Nevada State Department of Minerals will also be required. This permit will come from the Dissolved Minerals Division, a newly created agency that oversees all drilling that has the intention of pumping and sampling ground water brines. This another routine permit that should be obtained without significant delay once application has been made.



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

### 5.1 ACCESS

The property can be accessed by paved roads from Tonopah and Goldfield as well by the paved state route 265 through Silverpeak. From any of these paved approach routes, 4 to 5 miles of well maintained, all weather dirt roads lead directly onto the property.



### 5.2 LOCAL RESOURCES

The regional mining center city of Tonopah is within a 30-minute drive of the property. Tonopah has population of 15,500 (2018 census).

### 5.3 CLIMATE

The climate of the Clayton Valley is hot in summer, with average high temperatures around 100 °F and cool in the winter with average daily lows of 15 to 30 °F. Precipitation is dominantly in the form of thunderstorms in late summer. Snow cover in winter is rare.

### 5.4 PHYSIOGRAPHY

The Highland Lithium Project is located in the Great Basin physiographic region and more precisely within the Walker Lane province of the western Great Basin. The Clayton Valley is a flat-bottomed salt basin that is surrounded by a complex pattern of mountain ranges. Broad, low passes lead into the basin from the north and east (paved access).

On the Highland project itself the terrain is dominated by rocky, sandy outwash flats and by alluvial fans. The west margin of the claims is butted against a steep sided uplift of bedded volcanic ash.



Central Highland property. Note mud flats in foreground, this is the west edge of the Clayton Playa.





Northern Highlands property along access road. Note the lithium processing plant in background.



Highlands placer claim post. Mud flats in foreground and uplifted volcanic ash outcrops in background.

## 6.0 HISTORY

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The mineral exploration history of the Highland Project area is limited. The area was prospected for placer gold in the late 1800's and for uranium resources in the 1950's and 1960's. No exploration for subsurface lithium brines has occurred. The east-central portion of the Highland claim block area was included a detailed mapping effort of the Nevada Bureau of Mines and Geology (NBMG) in a field program carried out in 2015 and 2016.

The area has also been mapped by the USGS and State of Nevada geologists.

Recent slope wash sand, silt and gravel covers approximately 95% of the Highland property. These cover units have prevented any detailed surface exploration of the claim group. As was stated above, no subsurface exploration is reported in public data sources.

## 6.1 COMPILATION OF REPORTS ON EXPLORATION PROGRAMS

This report is the first to be produced solely focused on the Highland claim group area. Reports of private and public sector exploration activity on surrounding property packages have been read and compiled by the author. These reports have been a valuable resource in inferring the subsurface potential of the property.

In particular, a 1986 USGS report by Davis et al, has been useful for interpreting possible brine hosting units and structures in the property area,

Very active exploration ongoing in the Clayton Valley and the basin remains active for claim staking, grassroots exploration and advanced lithium resource development at the present time.

Recent, intensive, exploration within the Clayton Valley has been done by Albemarle, Cypress Development, Pure Energy Minerals, Noram Ventures and Spearmint Resources, among others. Reports of results of these companies have been read the author and important finding are incorporated into this report. No information from Albemarle is available as they do not report on exploration activities or results.

The assay results of this combination of basin wide and focused exploration by those companies listed above have defined additional lithium brine and, as well, have outlined significant mudstone and claystone hosted lithium resources in the basin.

In summary, recent exploration in the Clayton Valley has resulted in significant new discoveries of lithium which have greatly increased the indicated total lithium resources of the Clayton Valley.

## 7.0 GEOLOGICAL SETTING MINERALIZATION

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### 7.1 DISTRICT GEOLOGY

The Clayton Valley is a lithium brine district hosted within the Esmeralda Formation, a sequence of lake basin fill rocks that contains zones of volcanic ash rich stratigraphy and salty evaporite units. Regionally, these Esmeralda rocks have been shown to be of late Miocene to early Pleistocene age, in the range of 1 million to 5 million years before present. The Albemarle brine production field at Clayton is sourced from weakly to non- lithified volcanic ash horizons which have high porosity. The brines are pumped from these porous units contained within the upper portion of Esmeralda Formation lake bed sediments of the Clayton.

Esmeralda Formation sedimentary rocks exposed at surface in the basin are dominantly volcanicash rich mudstones, claystone with rare salt breccia evaporite units. All these exposed Esmeralda units are highly calcareous, ie they contain abundant calcite. The calcite acts to cement these units into indurated layers of fairly low porosity.

As was mentioned above, the presence of sandy, volcanic ash units within these rocks provides the host for lithium brine accumulation due to very high porosity. These units lack calcite cement and are seen as free flowing “sugar sands” in drill core. In these units, brine waters can accumulate in pour spaces within the sandy, ashy layers. Bounded above and below by low porosity, calcite cemented claystone and mudstone, these meter to multi meter scale beds are the lithium brine resources of the Clayton Valley.

It is important to note that the key section of lithium rich, mudstone, claystone and sandy ash bed units is the upper section of the Esmeralda formation. Lower units appear less favorable. The upper section, however, is over 100 meters thick, and could be 200 to 300 meters thick. The thickness of this prospective section of rocks in the Clayton Valley makes these rocks even more important as multiple porous ash units could be expected to occur within the subsurface rocks package.

Deep drilling by Pure Energy Minerals has shown that at depths of 600-700 meters below the playa surface, sandstones and siltstones become the dominant lithology, replacing the calcareous mudstones, sandy ashstones and evaporite horizons as seen at surface and in logged in exploration drilling programs.

The sandstone units of lower portion of the formation extend to depth for a minimum of 2000 meters below the playa surface in the portions of the central basin. A clear stratigraphic succession is evident which has ash rich mudstone and evaporite units near the surface and increasingly sandy units at deeper levels within the basin fill lacustrine stratigraphy. The identification of this basin fill sequence is important as it is within the upper, or youngest portion of the basin fill that the lithium mineralized mudstones and contained lithium brines have been found.

A summary of the Esmeralda Formation in the Clayton Valley is that these sedimentary formed within a shallow, saline lake environment formation as faulting down dropped the closed basin starting in Miocene time and ending in the recent past when the paleo brine

lake Esmeralda evaporated. The upper portion of the Esmeralda is lithium rich, very likely the result of its formation within a shallow brine lake that recently (10,000 to 20,000 years before present) covered the majority of the playa floor

Surficial sand and gravel units cover the Esmeralda units in many areas along the margins of the basin. These cover units are commonly less than five to ten meters thick. These units are distinctive from other post Esmeralda sands and gravels in that these units are moderately indurated and contain fist size and larger volcanic rock cobbles.

The presence of these indurated gravels at surface is a key exploration tool in identifying areas where underlying, lithium rich units of the upper Esmeralda formation are likely to occur and shallow depths.

This presentation of district geology has thus far focused solely on the basin infill stratigraphy due to the importance of those rocks in the localization of the lithium brines in the Clayton Valley.

A brief summary of the older rock units which outcrop around the rim of the basin is now presented to complete the description of the district scale geology of the Clayton Valley. Rugged, mountain uplifts around the rim of the basin are composed of Precambrian age metamorphic and intrusive rocks along with Paleozoic age limestone units. Early Miocene age volcanic rocks including intrusive volcanic domes and bedded ash units overly the older basement rocks in many areas around the basin margin. These uplifted rock units form the topographic barrier which isolates the Clayton Valley from the surrounding areas of southwest Nevada.

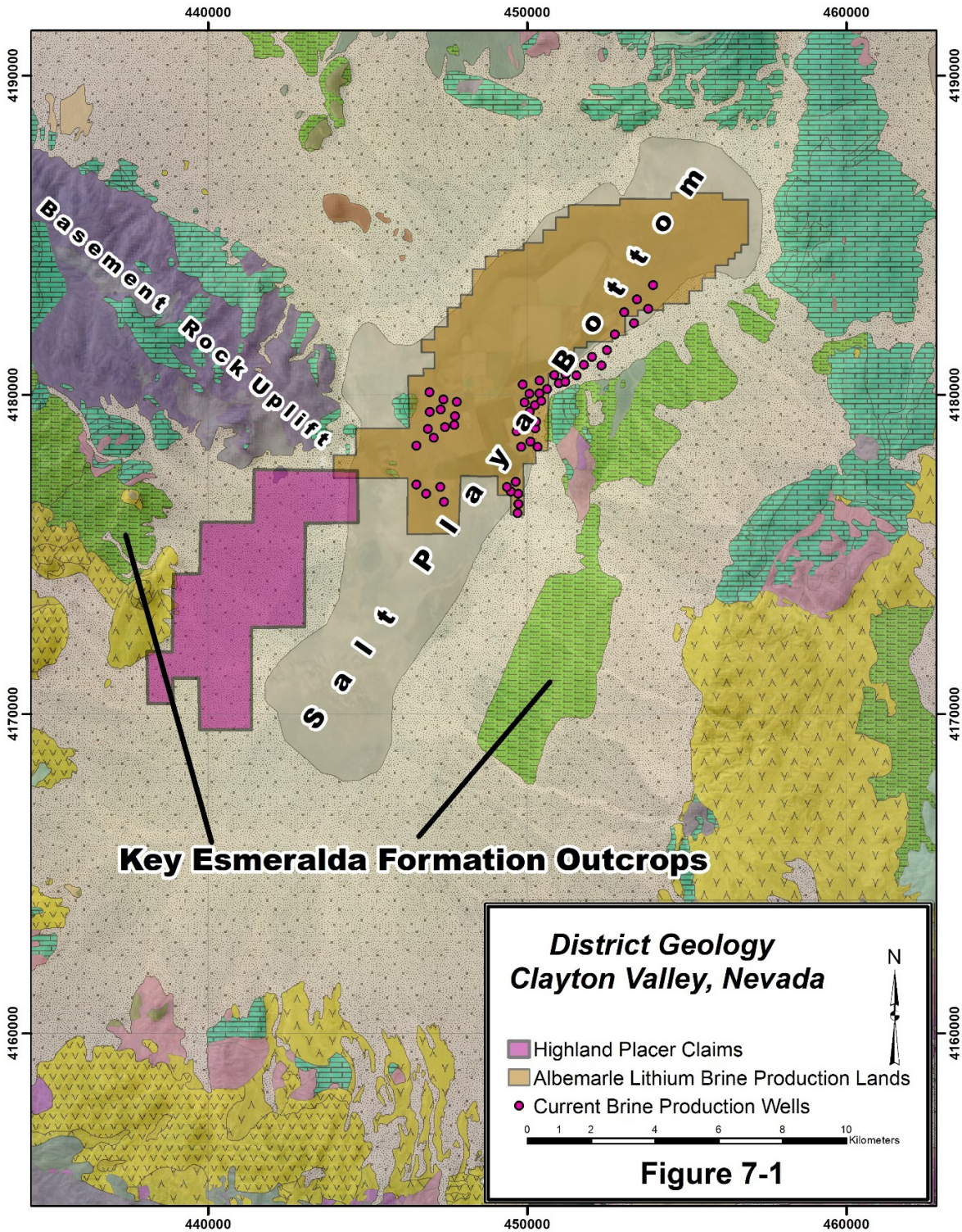
Isolated uplifts of these older rock packages occur within the basin itself. These basin uplifts are known as "Islands" and include Angel Island, Goat Island and Alcatraz Island. These uplifts stand above surrounding playa bottom salt and lithium rich deposits.

As has been previously stated, the mudstone and claystone units of the upper portions of the Esmeralda formation of the Clayton Valley have very high volcanic ash content. Ash sources include a series of regional volcanic centers that have erupted immense volumes of rhyolitic ash throughout the Miocene and continuing into the Pliocene.

One ash source is located within the district: a rhyolitic volcanic caldera of late Miocene age located within the Silverpeak range on the west side of the basin. Massive to bedded lapilli tuff units of nearly 1000 feet in thickness are well exposed along the western margin of the claim block. These rhyolite tuffs are considered lithium source rocks. These rocks are colored in yellow tones and labeled "Lithium Source Rocks" on figure 7-1 below.

A large area to west of the Highland claims contains a large exposure of interbedded sediments and ash tuff horizons of Esmeralda Formation age. These units underly the bedded ash flow units exposed immediately west of the Highland claim block. This potentially important rock package is colored green on figure 7-1 below.



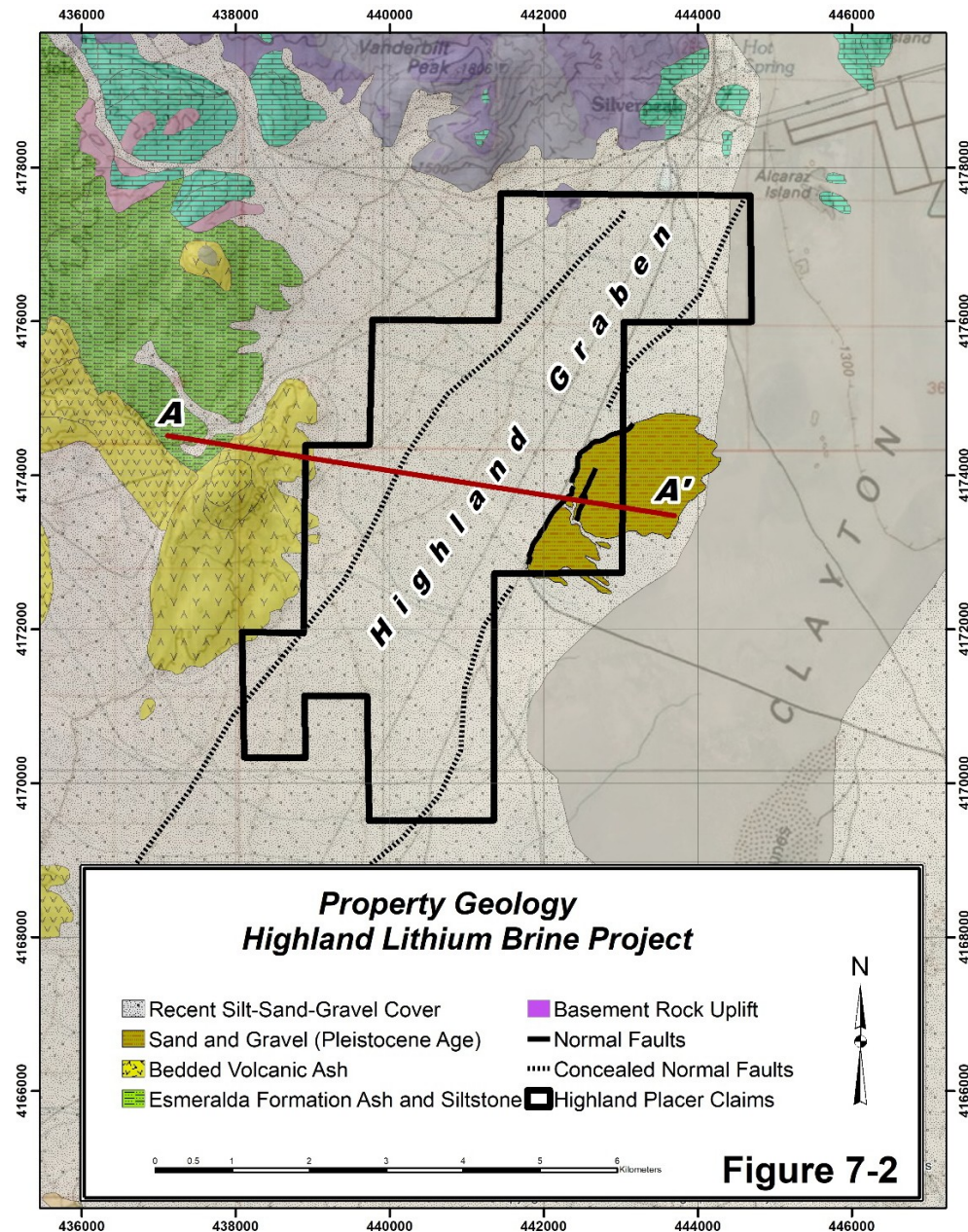




An important point from the district geology figure above is that the Scotch Creek Ventures Highland claim block sits on western margin of the Clayton Valley in a position that has outcropping Esmeralda Formation and bedded volcanic ash units exposed immediately west of the claim block. These units are both lithium source rocks as well as lithium brine trap rocks. These units have been faulted down to the east and are interpreted to lie in the subsurface of the Highland placer claims.

## 7.2 PROPERTY GEOLOGY

The geology of the Highland property is presented in Figure 6-2 below. This map has been compiled from several public sources well as from field observations made the property site visit by the author. While majority of the property is covered by surficial silt, sand and gravel, outcropping rocks of the lithium brine target Esmeralda Formation occur to west and are interpreted to lie in the subsurface of the property.



The Highland property lies within a gently sloping terrain with bold, uplifted outcrops of both bedded volcanic ash and interbedded siltstone and volcanic ash of the key lithium host rock, the Esmeralda Formation. These outcrops are exposed immediately west of the property. The vast majority of the property is covered by recent, slope wash, a fine grained, silty unit that grades into the playa basin bottom along the east edge of the property.

A low bench of older gravel units has been uplifted by northeast trending normal faults in the east-central portion of the claims. These faults are westside down, uplifting the older gravel units on the east side. Another series of northeast trending, normal faults is interpreted to lie beneath the surficial cover rocks in the western portion of the claims. These faults are down to the east and responsible for the uplift and exposure of the important Esmeralda Formation ash and siltstone units exposed along the steep range front adjacent to the west edge of the property.

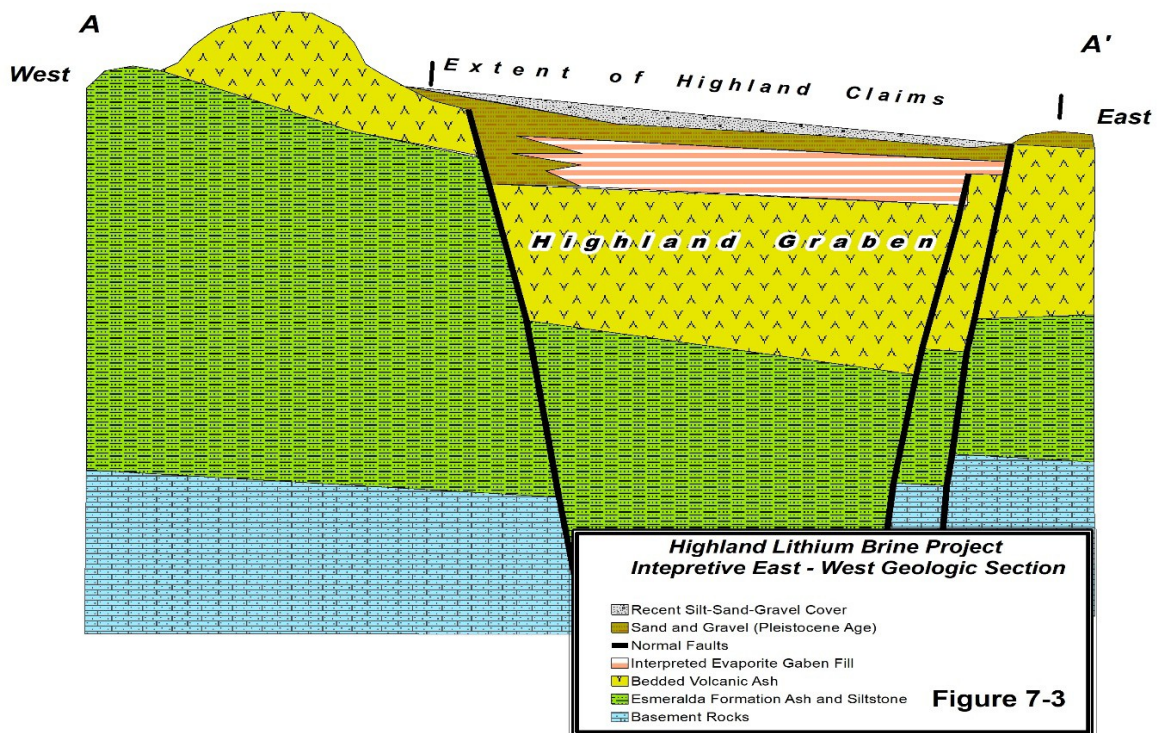
The summation of the property geology displayed on figure 7-2 is that the Highland property is underlain by a graben structure, bounded on the east and west by opposing geometry of normal fault zones. At an unknown depth beneath the recent surface cover rocks, this graben is interpreted to contain a thick sequence of volcanic ash with underlying, interbedded siltstone and porous ash beds.

Importantly, it is within these same units of the Esmeralda Formation that Pure Energy, Albemarle and others have found lithium brine resources localized within porous ash layers below the basin below the water table.

This graben is herein named the Highland graben and will form the basis for targeting subsurface drill exploration of the property. This graben appears to be the south-southwest continuation of a graben currently being explored by Nickle Rock Resources in a position approximately 3 kilometers north-northeast of the Highland project.

An east-west cross section (along bold red A – A' line on figure 7-2) of the property displays the interpreted structural and rock unit character of the subsurface of the project area (Figure 7-3). The cross section shows the Highland graben, bounded on the west by uplifted volcanic ash units and underlying Esmeralda Formation which is an interbedded sequence of ash rich siltstones and porous volcanic ash units. The eastside of the graben is formed by down-to-the-west normal faults mapped by the NBMG in 2016.

The cross section shows a “speculative” section of lake basin evaporite rocks lying beneath recent gravel cover rocks. This interpreted section is based on the observation that the Highland graben was likely actively forming during the period when a salty, paleo brine lake covered the bottom of the Clayton Valley. The author thinks it is reasonable to suggest that this brine lake could have invaded this flanking structural basin along the west margin of the main Clayton Valley. This interpreted section is shown as pink stippled on figure 7-3 below.



## 8.0 D DEPOSIT TYPE

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Scotch Creek Ventures is in the initial stages of exploration of the Highland property. Scotch Creek, through the compilation of data presented in this report, is proposing to conduct subsurface exploration through drilling to test concealed rock units for lithium brine occurrences similar to those previously discovered in the Clayton Valley. Known brine discoveries and resources have been found within porous ash bed units within the lake bed rock sequence. The presence of these favorable units in the subsurface at Highland has not been established. However, the compilation of data done here strongly suggests these units will occur under cover rocks on the property.

The nature of the target sequence is also favorable for the presence of lithium mineralized mudstone, claystone and evaporite units in the subsurface. Such occurrences could be very similar to the resources being developed in positions to the north-northeast of the project.

## 9.0 EXPLORATION

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No previous exploration for lithium or other resources on the property is evident in the compiled data.

## 10.0 DRILLING

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No drilling has been done on the Highland property based on the compilation of available data.

## 11.0 SAMPLE PREPARATION, ANALYSIS & SECURITY

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This report section is not applicable as no samples have been collected on the subject property.

## 12.0 MINERAL PROCESSING & METALURGICAL TESTING

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This section is not applicable this Report.



## 13.0 MINERAL RESOURCE ESTIMATES

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This section is not applicable this Report.

## 14.0 MINERAL RESERVE ESTIMATES

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This section is not applicable this Report.

## 15.0 MINING METHODS

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This section is not applicable this report.

## 16.0 RECOVERY METHODS

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This section is not applicable this Report.

## 17.0 PROJECT INFRASTRUCTURE

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Well maintained dirt access roads are the only infrastructure at the Highland property.



## 18.0 MARKET STUDIES

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This section is not applicable this Report.

## 19.0 ENVIRONMENTAL STUDIES, PERMITS, & SOCIAL OR COMMUNITY IMPACTS

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No permits for disturbance related to mineral exploration have been obtained for the recommended exploration work of this report.

Drill exploration for lithium brines in the subsurface of the property will require two permits. One permit will come from the Bureau of Land Management which will detail the proposed drilling activities and contain a financial bond to ensure proper reclamation is completed in a timely fashion. These "Notice Level Permits" are routinely received within 30 days of application. A financial bond of approximately \$7,000 is anticipated for the recommended drill program.

An additional permit from the Nevada State Department of Minerals will also be required. This permit will come from the Dissolved Minerals Division, a newly created agency that oversees all drilling that has the intention of pumping and sampling ground water brines. This is another routine permit that should be obtained without significant delay once application has been made.

Routine exploration permitting does not require studies of potential environmental impacts unless it is determined by the BLM that such exploratory work on the property would cause harm to existing natural or cultural resources. This is considered unlikely by the author.

## 20.0 CAPITAL & OPERATING COSTS

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This section is not applicable.

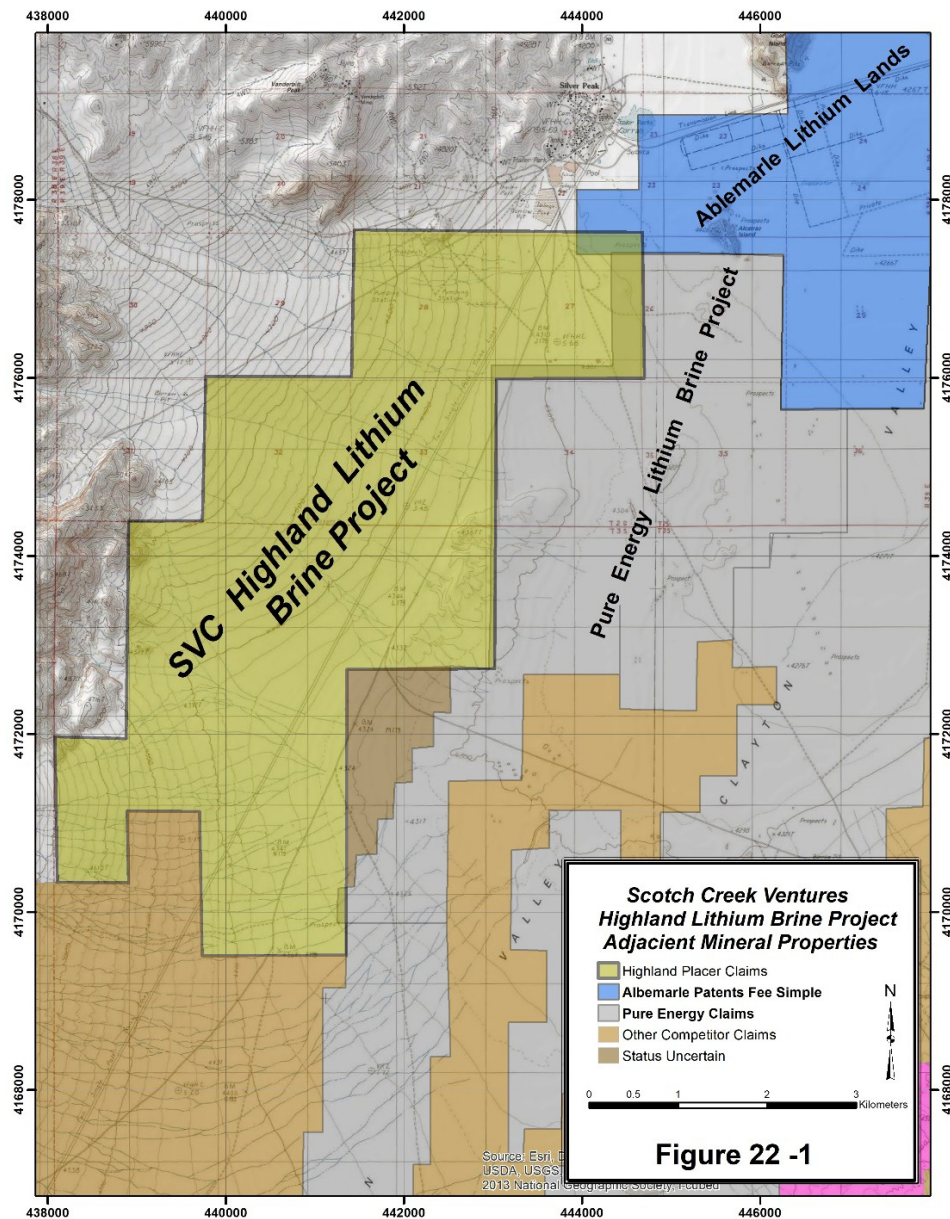
## 21.0 ECONOMIC ANALYSIS

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This section is not applicable.

## 22.0 ADJACENT PROPERTIES

The Highland claims were recently located in the western Clayton Valley. The areas surrounding the property have seen active staking in early 2021. These recently staked areas are shown in brown on Figure 22-1 below. Important adjacent properties are those of Albemarle and Pure Energy.





## 23.0 OTHER RELEVANT DATA & INFORMATION

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Exploration for lithium resources in the Clayton Valley has been very active for the last seven years and remains highly active and competitive today. Several recent discoveries of lithium in the basin have occurred recently. As a result, the basin is emerging as a world class lithium resource domain.

Even given the ongoing exploration of the basin, the understanding of where new brine discoveries in basin might be located has been largely static. This report presents a different view of potential target areas than has been used in recent years by other explorers.

Key positions along the margins of the basin remain completely untested. The Highland claim group sits in one of these positions viewed as having high potential for the occurrence of lithium brines based on the compilation and interpretation of all available data done during preparation of this report.

## 24.0 INTERPRETATIONS & CONCLUSIONS

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The Clayton Valley has an enormous measured and inferred endowment of lithium and is rapidly emerging as one of the world's largest concentrations of lithium. This lithium has collected in the basin from a variety of sources, dominantly from the great volume of lithium bearing volcanic ash found in the upper portions of the Esmeralda Formation.

The basin has collected, retained and concentrated this lithium for several million years, both into mineral brines and also stored within the upper section of lake bed mudstones, claystone and evaporite rocks that in outcrop and in the subsurface along the eastern edge of the Clayton playa. This pile of mudstones is evidence of a significant brine lake that existed in the basin prior to final evaporation in the last 10,000 years. Both the lithium brines and lithium mudstones result from evaporative concentration of lithium within a lake that is now gone.

The position of known brine and mudstone lithium resources show that the margins of the basin are important areas for lithium concentration in the Clayton Valley. The Highland Lithium Project is located along a highly prospective portion of the western margin of the basin.

Based on compiled data for the Clayton Valley, it is evident that lithium concentration, both as brines and within lake bed sedimentary rocks has occurred in shallow water environments that formed in a, salt water environment of the ancient brine lake. More important is the fact that these "near-shore" areas of lithium enrichment have remained in place once formed, based on the locations of recent, successful exploration drilling by Pure Energy and Nevada Sunrise. It has not been demonstrated by exploration success that lithium has migrated into the deep portions of the basin.

Deep exploration drilling the basin center has not been successful in discovering lithium brines.

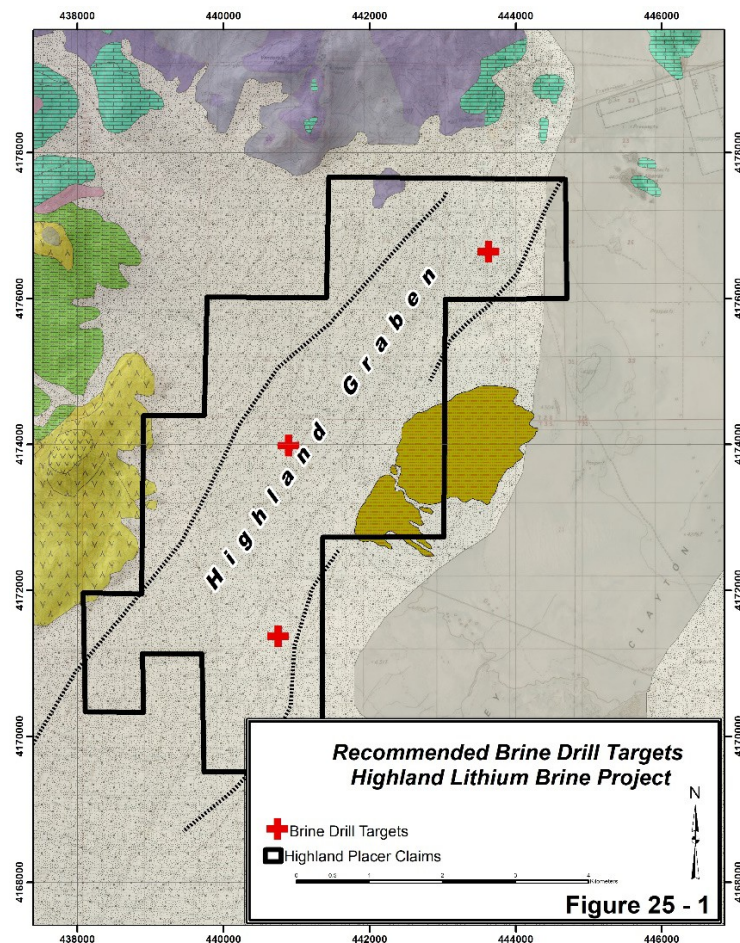
Despite the position and pattern of known resources, the highly prospective margins of the Clayton Valley playa remain largely unexplored. The Highland claim block is well located in the southern margin of the basin and presents an opportunity to drill test the favorable upper Esmeralda Formation rock units which are interpreted to lay beneath gravel cover units mapped at the project area.

The compilation of data and field work done for this report has resulted in the identification of the Highland graben. This down faulted sub-basin along the margin the main Clayton Valley recharge area presently a high-quality target for lithium brine exploration. This graben is an ideal trap area for salty brine lake waters that were present in the valley before final evaporation of the surface waters.

## 25.0 RECOMMENDATIONS

The combination of a highly favorable geological setting and unexplored nature of the Highland claim block make the claims favorable for a relatively low-cost brine exploration drill program. The target of the proposed drill program is lithium rich brines hosted within sedimentary and evaporite stratigraphy common to the margins of the Clayton Valley. The estimated cost for the recommended drill program is \$400,000. The holes are planned to be between 300m and 400m in depth for total drilling meterage of 900m to 1200m.

Drilling is recommended as the most definitive method to conduct initial exploration of the property subsurface. Figure 25-1, below displays the collar location of three holes to be drilled in a first pass evaluation of the rocks in the subsurface at Highland. The locations have been selected to provide adequate coverage of the property. The holes have been positioned to be within the identified Highland graben and are proposed to explore for interpreted evaporite rocks and to test deeper portions of the underlying volcanic ash rich stratigraphy as mapped by the USGS. Access to the selected drill sites is excellent, road building will not be required.

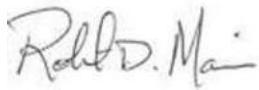


## 26.0 DATE & SIGNATURE PAGE

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This Report titled "*Highland Lithium Project National Instrument 43-101 Compliant Technical Report*" and dated June 7<sup>th</sup>, 2021, was prepared and signed by the following author:

Date effective as of June 7<sup>th</sup>, 2021.



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Robert D. Marvin P.Geo. - CPG

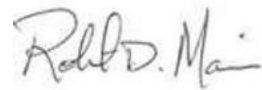


# CERTIFICATE

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I, Robert David Marvin., do hereby certify that:

1. I reside at 35 Chuck Wagon Road, Reno, Nevada.
2. I am Principle of Red Rock Exploration Inc. a firm dealing in economic geology consulting.
3. This certificate accompanies the report titled "*Highland Lithium Project National Instrument 43-101 Technical Report*" dated June 7th, 2021.
4. I am a graduate from the University of New Mexico with a Bachelors Degree with Distinction (1984), I completed 15 credit hours of post graduate education in geology at the University of Nevada and I have practiced my profession continuously since 1985. In addition the author has completed college course work in climatology including the study of paleo lake basins in the western US.
5. I am a Practicing Member in good standing of the Association of Professional Geologists of Ontario (APGO) (Registration #2021)
6. I am a "Qualified Person" for the purpose of NI 43-101. My relevant experience includes 33 years of experience in mineral exploration and mine geology. I have been on the ground as a geologist on hundreds of exploration projects and producing mines,
7. I am responsible for all sections of this technical report.
8. I am an independent of the issuer as described in Section 1.5 of NI 43-101.
9. I have not had any prior involvement with the property that is the subject of this technical report prior to being asked to write this technical report.
10. I have read NI 43-101, Form 43-101F1 and have prepared this technical report in compliance with NI 43-101, Form 43-101F1 and generally accepted Canadian mining industry practice.
11. As of the date of the technical report, to the best of my knowledge, information and belief, the technical report contains all scientific and technical information that is required to be disclosed to make the technical report not misleading.



Robert D. Marvin  
June 7<sup>th</sup>, 2021



## REFERENCES

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- Vine, J. D., 1980, Where on earth is all the lithium, with a section on Uranium isotope studies, Fish Lake Valley Nevada, by J. R. Dooley, Jr.: U.S. Geological Survey Open-File Report 80-1234, 107 p.’ highly recommended reading