

ASX Announcement | 11 August 2023

## Drilling Confirms Significant Lithium Discovery at the Scotty Lithium Project, Nevada, USA

### Highlights:

- **Drilling assays have confirmed the presence of a mineralised lithium basin at the 100% owned Scotty Lithium Project, with an average grade of 1,120ppm lithium at a 700ppm lithium cut-off-grade.**
- **The drilling assays returned spectacular results with a peak lithium value of 4,007ppm.**
- **Drilling results and geophysical data will now be used to create a 3D model and robust Exploration Target.**
- **The 5.7 km long western basin edge on Loyal Lithium's claims (implied from magnetotellurics<sup>1</sup>) consists of alluvial fan rocks that may accommodate mining/processing infrastructure and enable access to the basin for a traditional and relatively low-cost surface mining solution.**
- **Nevada Lithium's (CSE:NVLH) neighbouring Bonnie Claire Project, recently produced a sample quantity of battery grade lithium carbonate<sup>6</sup> from the contiguous sedimentary basin drill core of the Bonnie Claire Project where drilling has found lithium only 1 km to the east of Loyal Lithium's claims<sup>3,4,5</sup>.**
- **Scotty Lithium is located 40km north of the mining town of Beatty, 220km from Los Vegas and 330km from Tesla's Nevada Gigafactory with existing all-weather roads and power infrastructure within close proximity.**

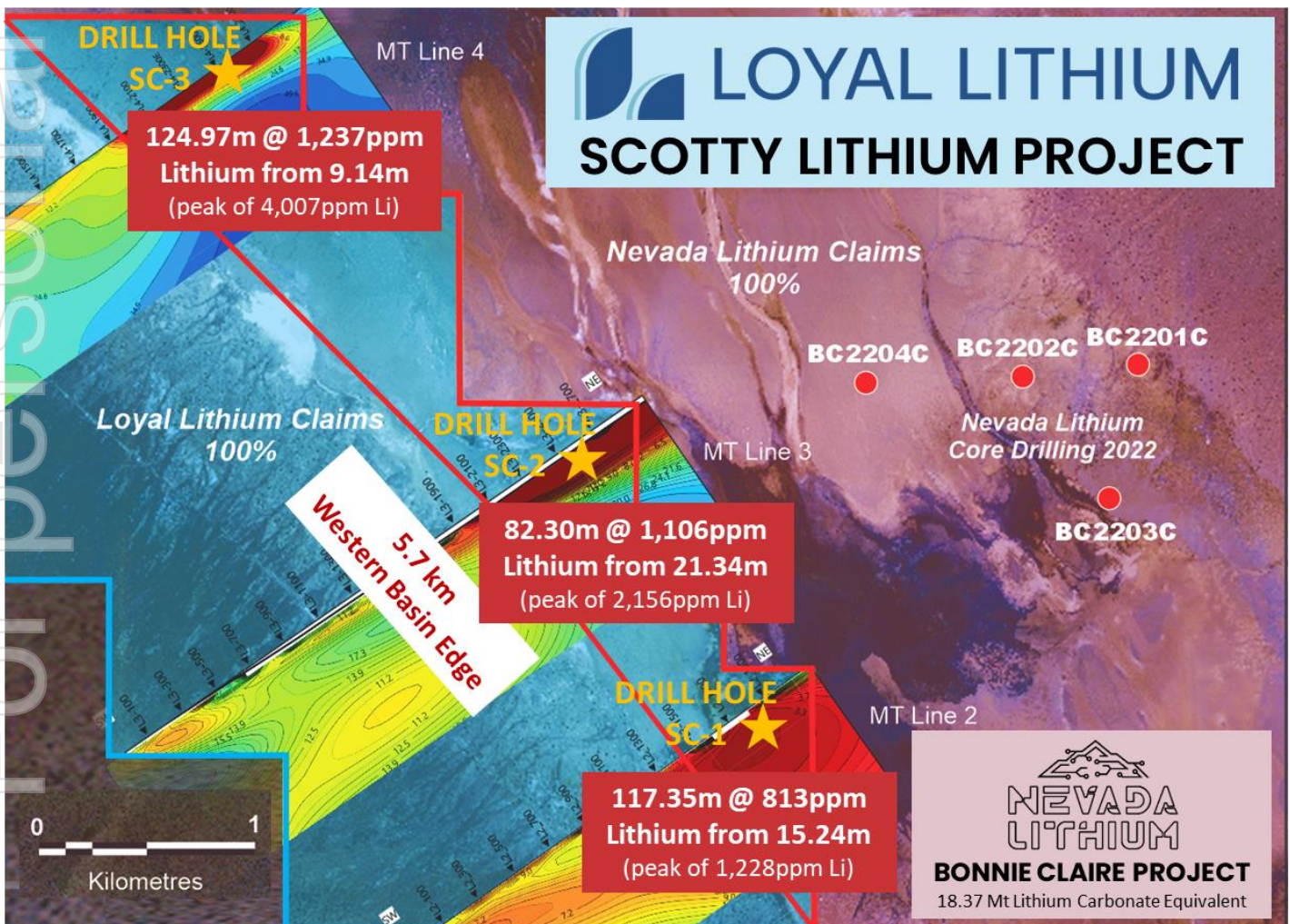
Loyal Lithium Limited (**ASX: LLI**) (**Loyal Lithium** or the **Company**) is thrilled to confirm the discovery of a significant lithium basin at the 100% owned Scotty Lithium Project in Nevada, USA. The average lithium grade of the drillholes measures 1,120ppm with a 700ppm cut-off, starting near the surface (9m deep) and spans a 3.6km<sup>2</sup> area with an average thickness of 108m. Drilling and geophysics data will be utilised for a 3D model and for the creation of an Exploration Target. The basin's 5.7km western edge offers the potential for cost-effective mining due to its alluvial fan rocks, providing excellent accessibility for surface mining. Nevada Lithium's (CSE:NVLH) neighbouring Bonnie Claire Project has successfully produced battery-grade lithium carbonate from its sedimentary basin drill cores. The Scotty Lithium Project occurs within close proximity to all-weather roads and power infrastructure, and is strategically located just 40km north of Beatty, 220km from Las Vegas, and 330km from Tesla's Nevada Gigafactory.

**Loyal Lithium’s Managing Director, Mr Adam Ritchie, commented:**

*“The Scotty Lithium Project continues to deliver with spectacular drilling assay results confirming strong lithium mineralisation, representing significant resource potential.”*

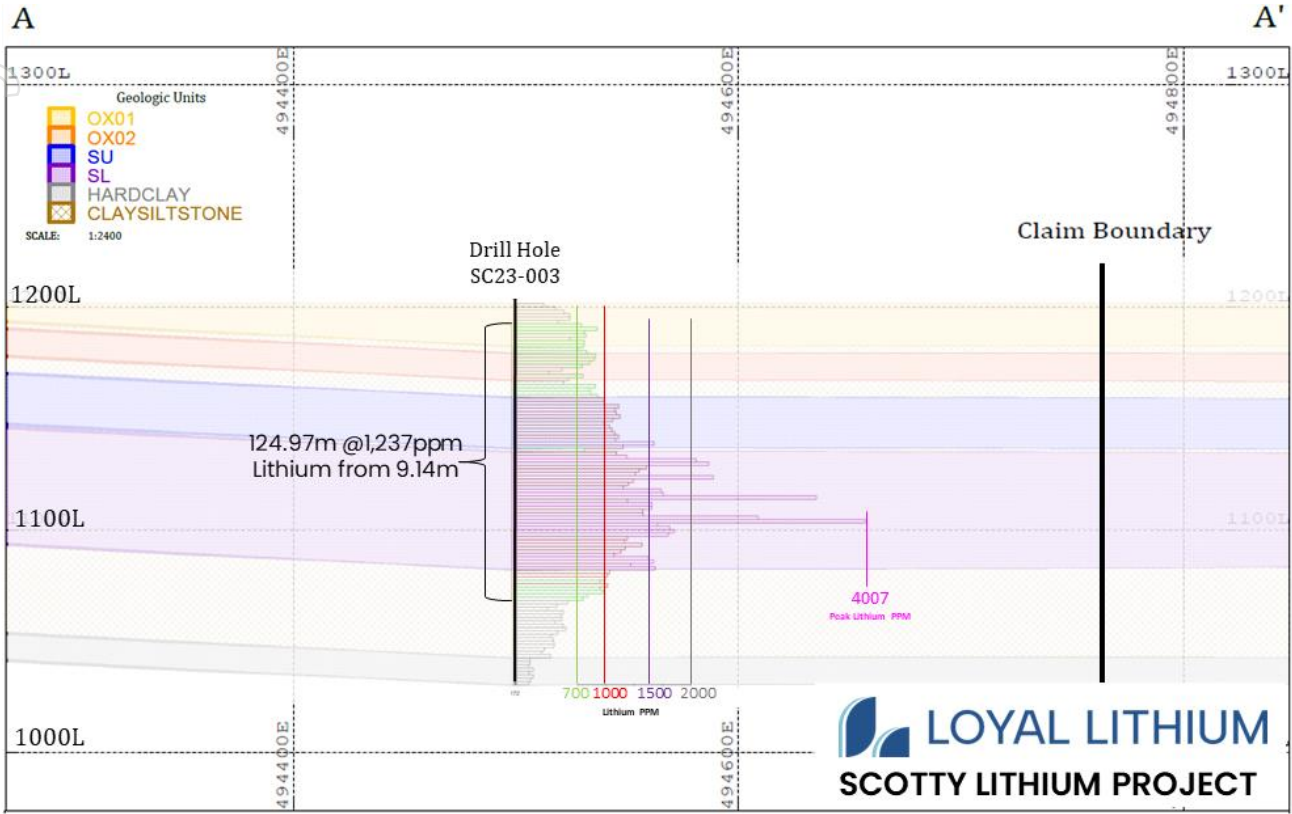
*“With the support of a 5.7km western edge, the sedimentary basin could potentially be accessed via traditional mining solutions from surface. The neighbouring Bonnie Claire Project has recently completed pilot plant test work to produce a high-grade lithium carbonate from the adjoining sedimentary clay”.*

*“Nevada lithium is alive, and the Scotty Lithium Project has shown its potential to play a significant role in the emerging North American lithium supply chain.”*

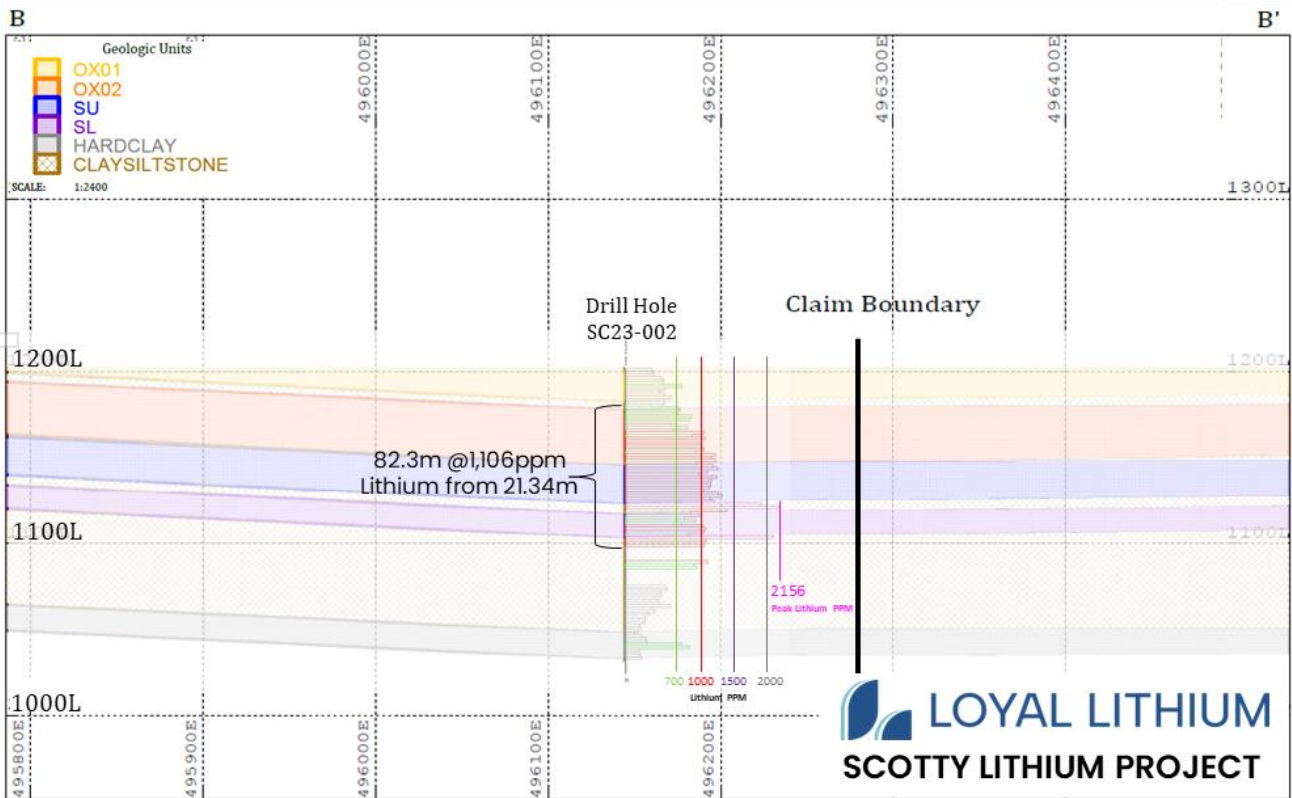


**Figure 1: Scotty Lithium Project – Mineralised Sedimentary Basin - MT traverses projected to the horizontal**





**Figure 2: Geologic Model Cross Section A - A'**



**Figure 3: Geologic Model Cross Section B - B'**

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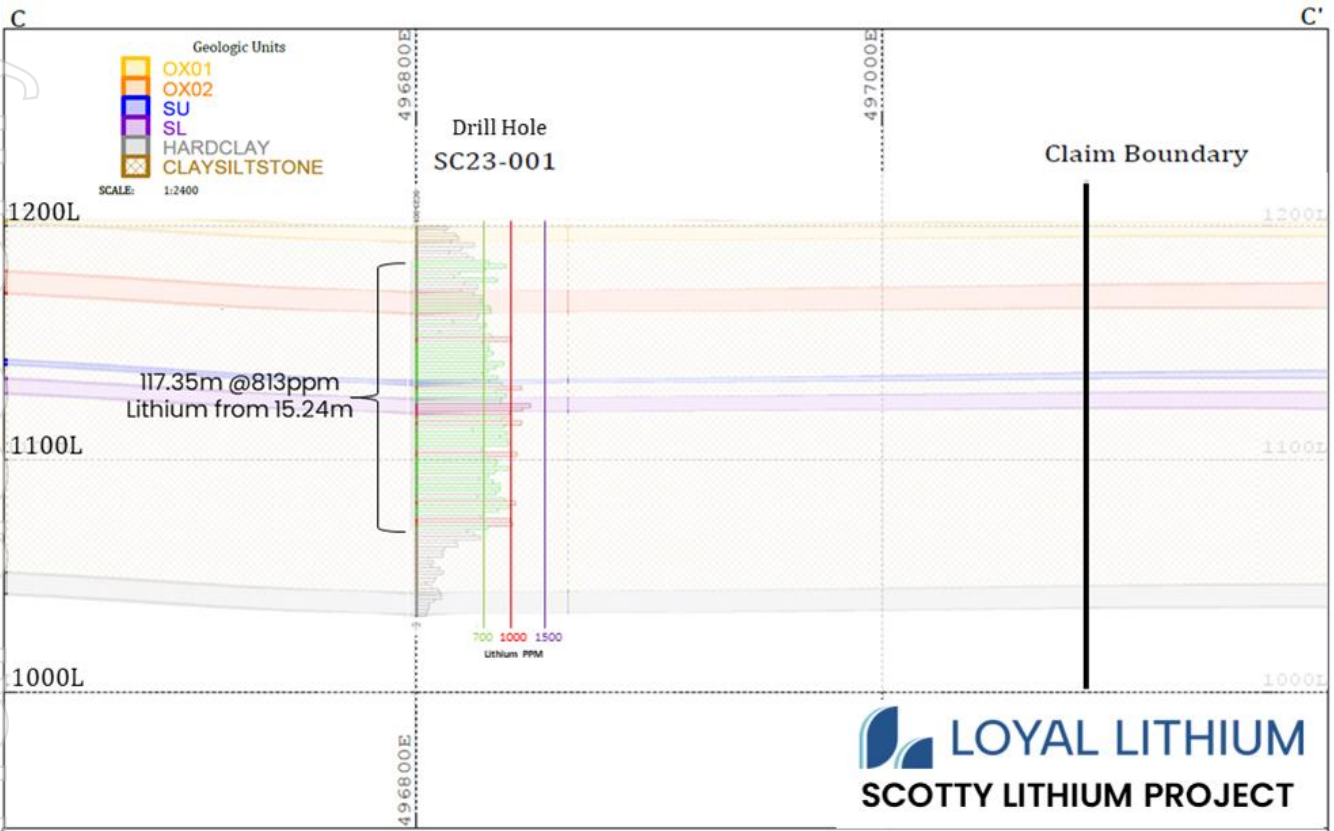


Figure 4: Geologic Model Cross Section C – C’

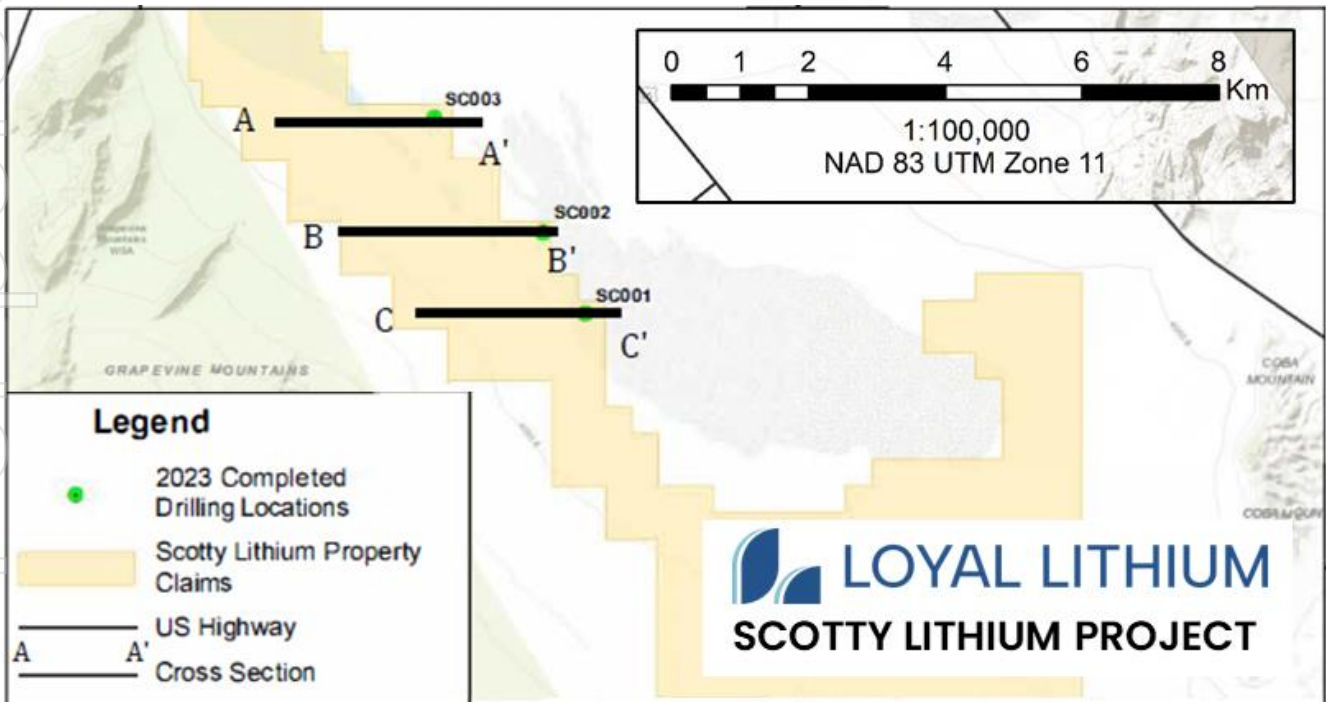


Figure 5: Scotty Lithium Project geologic cross sections.

## **Project and Exploration Program Overview**

The Scotty Lithium Project is located 220 km northwest of Las Vegas, NV and is contained within the Sarcobatus Flat, a known lithium-bearing sediment basin. Nevada Lithium's (CSE:NVLH) neighbouring Bonnie Claire Project is also contained within the same basin. Early this year, Nevada Lithium purchased Iconic Minerals Ltd. who in 2021 completed a PEA on the resource at the Bonnie Claire project.<sup>8</sup>

Loyal Lithium's 2023 sonic drilling campaign, comprised of three drillholes averaging 171 m, for a total depth of 513 m. The drilling confirmed the consistent depth of the lithium mineralisation between the drillholes (averaging 1.9 km) and consistent nature of the geology in the area. The lithium-bearing units are easily distinguishable from the basement volcanic rocks. The Sonic drill rig performed well, with high-quality samples obtained for assaying.

<b>Drill Hole</b>	<b>Intercept Metres</b>	<b>Lithium Grade ppm</b>	<b>Depth From metres</b>	<b>Lithium Max Assay ppm over 1.52m</b>
SC23-001	<b>117.35</b>	<b>813</b>	<b>15.24</b>	<b>1,228</b>
SC23-002	<b>82.30</b>	<b>1,106</b>	<b>21.34</b>	<b>2,156</b>
SC23-003	<b>124.97</b>	<b>1,237</b>	<b>9.14</b>	<b>4,007</b>

**Table 1: Sonic Drill Intercepts >700ppm Lithium**

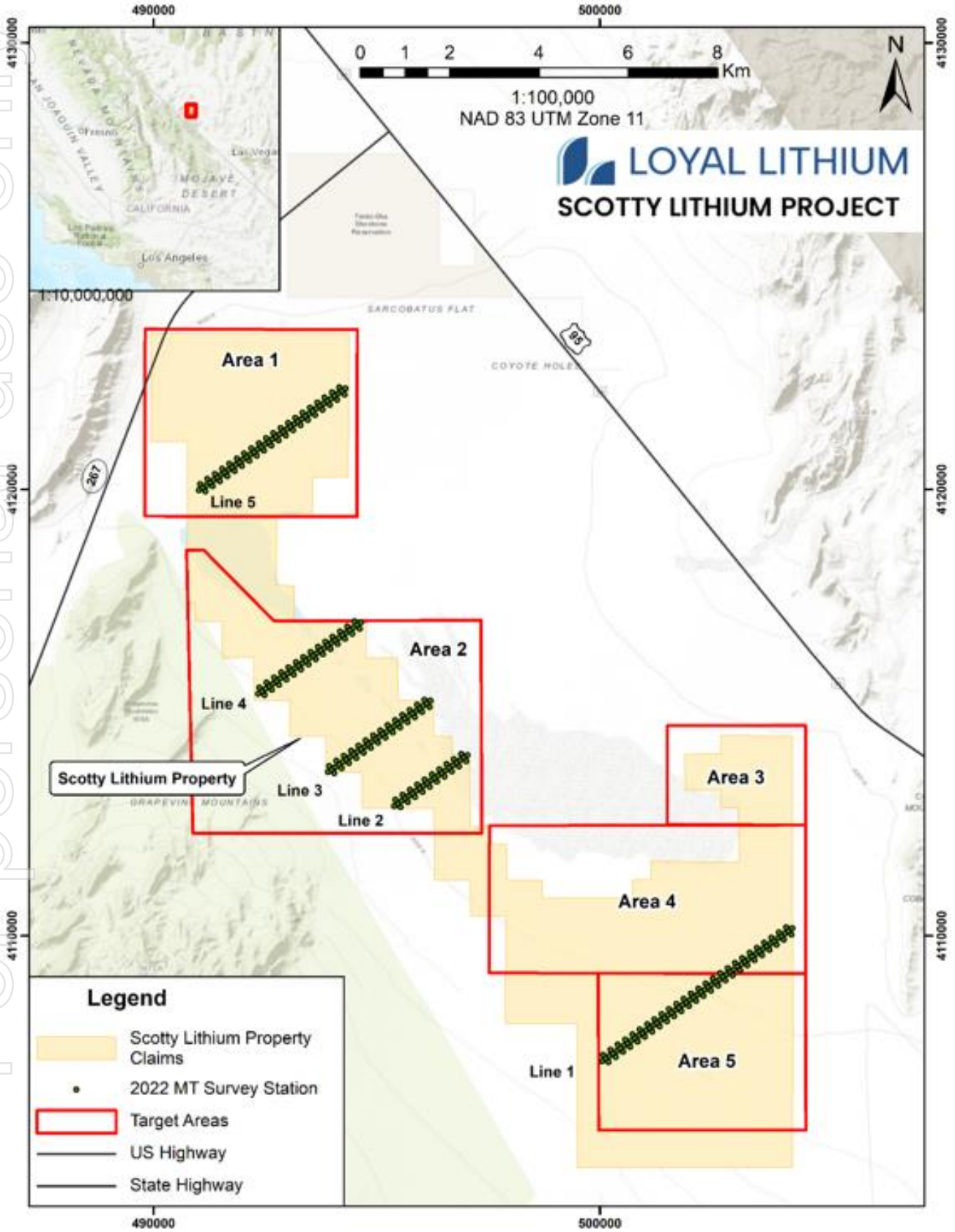
**Notes: Vertical -90° drill holes. SC23-002 had 7.62m of sample loss between 99.06m to 106.68m. This interval is potentially mineralised as 1,154 ppm lithium found beneath the loss interval. The adjacent Bonnie Claire NI 43-101 Resource reported to a 700ppm cut-off-grade conducted by GRE Engineering. No upper cut off lithium grades, maximum of 4 samples (6.09 m) minimum <700ppm included in intercepts Sonic drill samples were taken every 1.525m (5 feet) down hole.**

The sedimentary basin area is interpreted from both surface features in visible and short-wave infrared (SWIR) satellite photography and five magnetotelluric (MT) survey traverses oriented perpendicular to the basin margin<sup>1</sup>, completed by Loyal Lithium in 2022 (Figure 6).

The interpreted sedimentary basin area of 3.6 km<sup>2</sup> extends from surface to a consistent vertical depth of ≈165m. The sedimentary basin also has strong lithium soils assay results<sup>2</sup> and is only 1 km west of Nevada Lithium's 2022 drilling, which confirmed four layers of correlated lithium mineralisation<sup>3</sup>.

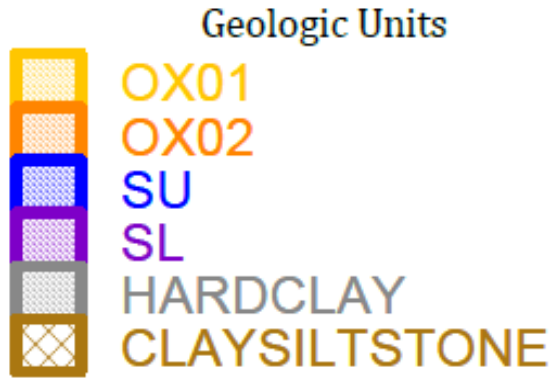


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**Figure 6: Scotty Lithium Project – 2022 MT Survey lines**

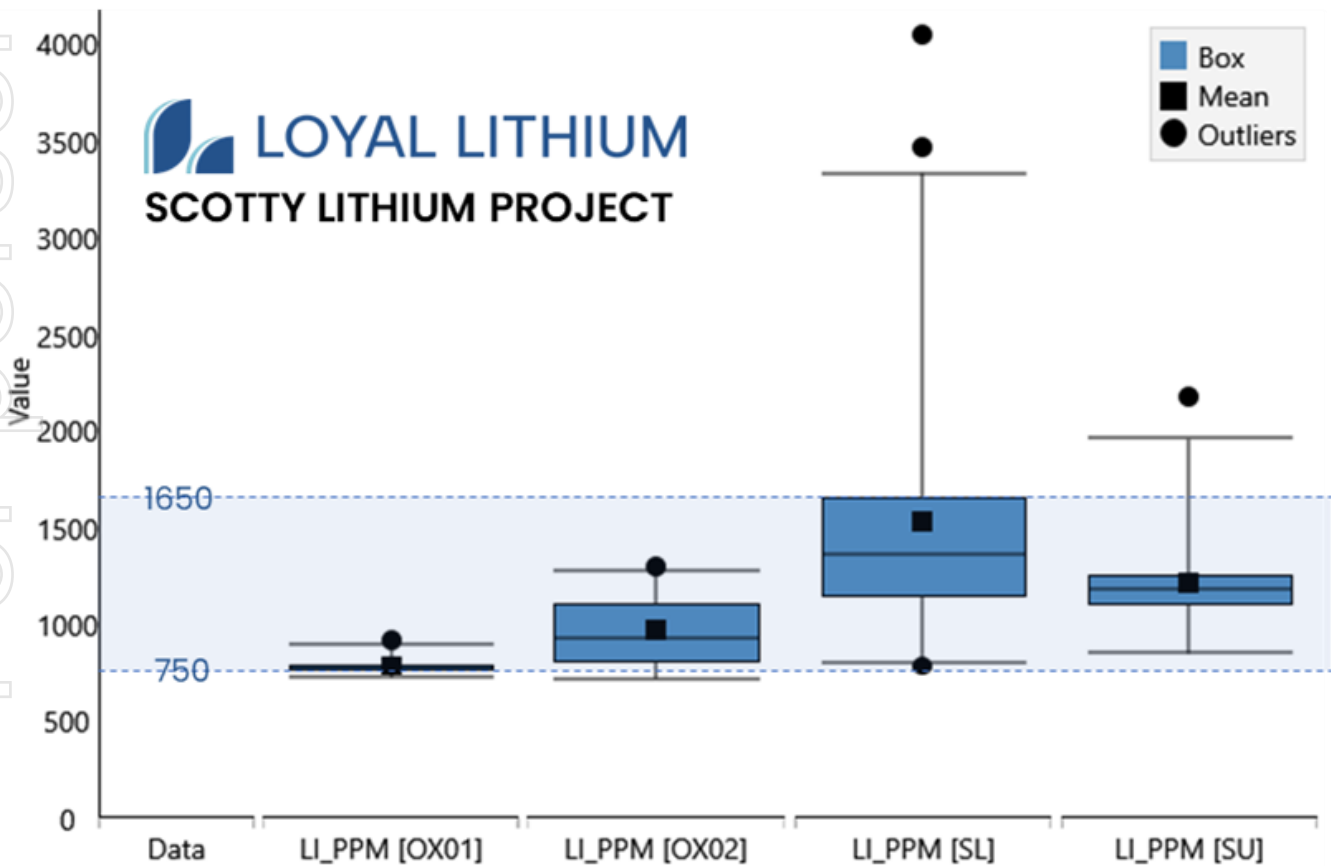
Gently dipping stratigraphically deposited lithium bearing beds were correlated by the presence of two oxidized layers (OX01 and OX02) and two beds containing clays with weakly leached volcanic ash and source material (SU and SL).



**Figure 7: Stratigraphic order of the lithium concentrated beds (Note: Claysiltstone is interbedded among all over units and does not follow the order of superposition)**

The stratigraphic order of the four correlated units of lithium bearing material can be seen in Figure 7. Lithium content is not restricted to the four modelled beds; however, these four geologic units contain consistent and significant amounts of lithium concentrations. In Figure 8 there is a box plot and associated general statistics for each of the four correlated lithium bearing beds (OX01, OX02, SU, and SL).

**BOX PLOT LITHIUM PPM BY GEOLOGIC UNIT**



**Figure 8: Box Plot and general statistics for the lithium (Li) ppm content in each of the four (4) correlated mineralised beds. See JORC Table 1 for data table.**

*This announcement has been authorised for release by Loyal Lithium's Board of Directors*

## **For more information:**

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## **About Loyal Lithium**

Loyal Lithium Limited (ASX: LLI) is a well-structured listed resource exploration company with projects in Tier 1 North American mining jurisdictions in Nevada, USA and the James Bay Lithium District in Quebec, Canada. Through the efficient exploration of its projects, the Company aims to delineate JORC compliant resources.

### **Future Performance**

*This announcement may contain certain forward-looking statements and opinion forward-looking statements, including projections, forecasts and estimates, are provided as a general guide only and should not be relied on as an indication or guarantee of future performance and involve known and unknown risks, uncertainties, assumptions, contingencies and other important factors, many of which are outside the control of the Company and which are subject to change without notice and could cause the actual results, performance or achievements of the Company to be materially different from the future results, performance or achievements expressed or implied by such statements. Past performance is not necessarily a guide to future performance and no representation or warranty is made as to the likelihood of achievement or reasonableness of any forward-looking statements or other forecast. Nothing contained in this announcement, nor any information made available to you is, or shall be relied upon as, a promise, representation, warranty or guarantee as to the past, present or the future performance of Loyal Lithium Ltd.*

### **Competent Person Statement**

*The information in this announcement that relates to Exploration Results, is based, and fairly reflects, information compiled by Mr Jacob Anderson, who is a resource geologist with Dahrouge Geological Consulting, USA Ltd. Mr Anderson is a Certified Professional Geologist (CPG) with the American Institute of Professional Geologists (AIPG) as well as a Member of the Australasian Institute of Mining and Metallurgy (AusIMM). Mr Anderson has sufficient experience which is relevant to the style of mineralisation and type of deposit under consideration and the activity he is undertaking to qualify as a Competent Person as defined in the 2012 Edition of the Australasian Code for Reporting of Exploration Results and Mineral Resources (JORC Code). Mr Anderson consents to the inclusion in the announcement of the matters based on the information in the form and context in which it appears.*

### **References**

<sup>1</sup>ASX Announcement LLI): MT Traverses Implies Sedimentary Target as Drill Mobilisation Commences at 100% owned Scotty Lithium Project, Nevada, USA 20 March 2023

<sup>2</sup> ASX Announcement MMG (LLI): Strong Soil Assay Results Define Targets at the Scotty Lithium Project, Nevada USA 21st September 2022



<sup>3</sup> Iconic Intercepts Lithium Grades up to 5570ppm at Bonnie Claire Project Vancouver, British Columbia – (Newsfile Corp. – September 29, 2022) – Iconic Minerals Ltd. (TSXV: ICM) (OTCQB: BVTEF)

<sup>4</sup> Iconic Minerals Receives Additional Drilling Assays for Bonnie Claire Lithium Project Vancouver, British Columbia – (Newsfile Corp. – December 20, 2022) – Iconic Minerals Ltd. (TSXV: ICM) (OTCQB: BVTEF)

<sup>5</sup> Iconic Finds Strong Correlation Between Drill Holes at Bonnie Claire Lithium Project Vancouver, British Columbia – (Newsfile Corp. – December 07, 2022) – Iconic Minerals Ltd. (TSXV: ICM) (OTCQB: BVTEF)

<sup>6</sup> Battery Grade Lithium Carbonate Produced From Bonnie Claire Lithium Deposit, Nevada. Nevada Lithium Resources Inc. – February 27, 2023 (CSE: NVLH; OTCQB: NVLHF; FSE: 87K)

<sup>7</sup> Mineral Resource Estimate Technical Report. Bonnie Claire Lithium Project Nye County, Nevada, October 30, 2018. <https://iconicminerals.com/bonnie-claire-property/>.

<sup>8</sup> Samari, H., Mortiz, R., Harvey, J. T. & Lane, T., 2021. *Preliminary Economic Assessment NI 43-101 Technical Report Bonnie Claire Lithium Project*, s.l.: s.n.

<https://nvlithium.com/bonnie-clair-project/>

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# JORC Code, 2012 Edition – Table 1

## Section 1 Sampling Techniques and Data

Criteria	JORC Code explanation	Commentary
<i>Sampling techniques</i>	<ul style="list-style-type: none"> <li>• <i>Nature and quality of sampling (e.g. cut channels, random chips, or specific specialized industry standard measurement tools appropriate to the minerals under investigation, such as downhole gamma sondes, or handheld XRF instruments, etc). These examples should not be taken as limiting the broad meaning of sampling.</i></li> <li>• <i>Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used.</i></li> <li>• <i>Aspects of the determination of mineralisation that are Material to the Public Report.</i></li> <li>• <i>In cases where 'industry standard' work has been done this would be relatively simple (eg 'reverse circulation drilling was used to obtain 1 m samples from which 3 kg was pulverised to produce a 30 g charge for fire assay'). In other cases more explanation may be required, such as where there is coarse gold that has inherent sampling problems. Unusual commodities or mineralisation types (eg submarine nodules) may warrant disclosure of detailed information.</i></li> </ul>	<ul style="list-style-type: none"> <li>• In 2017, one RC drill hole (SS17-01: 115.8 m) with 4 water samples collected and analyzed.</li> <li>• In 2022, property-wide soil auger program collected 643 samples.</li> <li>• Lines were 400 m apart, with samples collected at 200 and 400 m spacing</li> <li>• Brine samples (2017) were sent to Western Environmental laboratory (WETLAB) in Las Vegas, NV. The brine samples were prepared by method EPA 200.2 (Trace Metals Digestion (Brine)) and analyzed by method EPA 200.7 (Trace Metals ICP-OES).</li> <li>• Soil auger samples (2022) were submitted to ALS Labs in Reno, NV.</li> <li>• Once the samples were received by ALS, they were logged into their internal system using prep code LOG-22, followed by sample weight received (WEI-21), then underwent drying (DRY-22) to a max temperature of 60° C, followed by screening to a -180µm. Once all the prep was complete, the samples were analyzed using an ultra trace aqua regia ICP-MS (ME-MS41).</li> <li>• In 2023 three sonic drillholes (SC-001: 171 m) (SC-002: 170 m) (SC-003: 172 m) which resulted in 325 samples sent to American Assay Laboratories in Sparks, NV for analysis.</li> </ul>
<i>Drilling techniques</i>	<ul style="list-style-type: none"> <li>• <i>Drill type (eg core, reverse circulation, open-hole hammer, rotary air blast, auger, Bangka, sonic, etc) and details (eg core diameter, triple or standard tube, depth of diamond tails, face-sampling bit or other type, whether core is oriented and if so, by what method, etc).</i></li> </ul>	<ul style="list-style-type: none"> <li>• Drill hole SS17-01 was reverse circulation (RC) with nominal diameter of 5 ¾”.</li> <li>• 2023 drilling (SC-001, SC-002 and SC-003) was Sonic drill holes with a nominal diameter of 6”</li> </ul>
<i>Drill sample recovery</i>	<ul style="list-style-type: none"> <li>• <i>Method of recording and assessing core and chip sample recoveries and results assessed.</i></li> <li>• <i>Measures taken to maximise sample recovery and ensure representative nature of the samples.</i></li> <li>• <i>Whether a relationship exists between sample recovery and grade and whether sample bias may have occurred due to preferential loss/gain of fine/coarse material.</i></li> </ul>	<ul style="list-style-type: none"> <li>• Chips were logged as unconsolidated sand and gravel.</li> <li>• Brine samples were collected over 3 hr time period to allow formation water to stabilize.</li> </ul>
<i>Logging</i>	<ul style="list-style-type: none"> <li>• <i>Whether core and chip samples have been geologically and geotechnically logged to a level of detail to support appropriate Mineral Resource estimation, mining studies and metallurgical studies.</i></li> <li>• <i>Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc) photography.</i></li> <li>• <i>The total length and percentage of the relevant intersections logged.</i></li> </ul>	<ul style="list-style-type: none"> <li>• Chips were geologically logged in the field qualitatively with pen and paper as they were collected.</li> <li>• Samples collected utilizing a 2-inch (50.8 mm) diameter stainless steel AMS auger (powered by an Echo EDR-260 gas-powered drill) . Samples collected from a depth up to 54 inches (1.37 m) with a sample size of approximately 6.61 to 8.82 pounds (3 – 4 kg). Samples collected from surface to end-of-hole or approximately bottom ¾ of hole. Samples split in the field utilizing a Jones-type riffle splitter in order to achieve desired sample weight. Samples collected utilizing an AMS Compacted Soil Sampler Bucket system in order to eliminate, or greatly reduce, the risk of surface contamination (system cleaned between samples). Samples were placed into heavy duty 8 mil (0.2 mm) poly bags.</li> </ul>

Criteria	JORC Code explanation	Commentary
		<ul style="list-style-type: none"> <li>• Samples were double bagged by the drillers in 0.76-meter intervals. Samples were received from the drillers and logging and sample preparation occurred on 1.5-meter intervals. Each sample was geologically logged noting clay, silt, and sand content; gypsum, calcium carbonate (via HCl), NaCl (taste) content; and colour description using Munsell colour charts. A representative sample was collected for the chip tray.</li> </ul>
<i>Sub-sampling techniques and sample preparation</i>	<ul style="list-style-type: none"> <li>• <i>If core, whether cut or sawn and whether quarter, half or all core taken.</i></li> <li>• <i>If non-core, whether riffled, tube sampled, rotary split, etc and whether sampled wet or dry.</i></li> <li>• <i>For all sample types, the nature, quality and appropriateness of the sample preparation technique.</i></li> <li>• <i>Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples.</i></li> <li>• <i>Measures taken to ensure that the sampling is representative of the in situ material collected, including for instance results for field duplicate/second-half sampling.</i></li> <li>• <i>Whether sample sizes are appropriate to the grain size of the material being sampled.</i></li> </ul>	<ul style="list-style-type: none"> <li>• Samples were double bagged by the drillers in 0.76-meter intervals. Samples were received from the drillers and logging and sample preparation occurred on 1.5-meter intervals. The outer bag was removed from each sample and the inner bag was split with scissors to access the sample. Each sample interval was identified on a white board and photographed. Sample diameters varied with depth from 15.24 centimetres (upper 61 meters) to 10.16 centimetres (61-152.4 meters) and to 7.62 centimetres (&gt;152.4 meters). Chips (SS17-01) were not sampled or analyzed.</li> <li>• Soil samples split in the field utilizing a Jones-type riffle splitter in order to achieve desired sample weight.</li> <li>• Once characterized, the sample was split lengthwise using a steel drywall taping knife or a 3-inch-wide chisel if the sample was partially lithified. One half of the sample was then quartered, and a quarter of the core sample was then placed in the bar-coded cloth sample bag and tied shut for transport to the secure storage location at the end of each day. Each cloth sample bag had the barcode number written on the outside of the bag and the tear-off portion of the barcode tag was placed inside the sample bag to provide triple redundancy of labelling on each sample to ensure integrity. The remaining sample was then placed back into the outer bag, zip-tied shut and placed on the truck for transport to the secure storage location at the end of the day. The processing table was cleaned after each sample was processed.</li> </ul>
<i>Quality of assay data and laboratory tests</i>	<ul style="list-style-type: none"> <li>• <i>The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total.</i></li> <li>• <i>For geophysical tools, spectrometers, handheld XRF instruments, etc, the parameters used in determining the analysis including instrument make and model, reading times, calibrations factors applied and their derivation, etc.</i></li> <li>• <i>Nature of quality control procedures adopted (eg standards, blanks, duplicates, external laboratory checks) and whether acceptable levels of accuracy (ie lack of bias) and precision have been established.</i></li> </ul>	<ul style="list-style-type: none"> <li>• Brine samples (2017) were sent to Western Environmental laboratory (WETLAB) in Las Vegas, NV. The brine samples were prepared by method EPA 200.2 (Trace Metals Digestion (Brine)) and analyzed by method EPA 200.7 (Trace Metals ICP-OES).</li> <li>• Soil auger samples (2022) were submitted to ALS Labs in Reno, NV.</li> <li>• Soil samples were logged into their internal system using prep code LOG-22, followed by sample weight received (WEI-21), then underwent drying (DRY-22) to a max temperature of 60° C, followed by screening to a -180µm. Once all the prep was complete, the samples were analyzed using an ultra trace aqua regia ICP-MS (ME-MS41).</li> <li>• QA/QC sample insertions for drill hole SC23-001 included six CRM's, four field duplicates, five blanks, and six requested lab replicates. Insertions for drill hole SC23-002 included six CRM's, four field duplicates, five blanks, and two requested lab replicates. Insertions for drill hole SC23-003 included six CRM's, four field duplicates, five blanks, and six requested lab replicates. The laboratory also inserted CRM's, blanks, and replicates into the sample stream. The laboratory inserted a total of 47 duplicates, 39 blanks and CRM's total, for the</li> </ul>



Criteria	JORC Code explanation	Commentary																																			
		<p>core samples and a total of 12 blanks, CRM's, and duplicates for the brine samples. Analytical procedures are considered adequate for the early-stage nature of the programs.</p> <table border="1"> <thead> <tr> <th>Number of samples</th> <th>8</th> <th>28</th> <th>48</th> <th>34</th> </tr> </thead> <tbody> <tr> <td>Max</td> <td>922.000</td> <td>1,295.000</td> <td>4,007.000</td> <td>2,156.000</td> </tr> <tr> <td>Upper quartile</td> <td>794.000</td> <td>1,100.500</td> <td>1,648.500</td> <td>1,251.000</td> </tr> <tr> <td>Median</td> <td>774.500</td> <td>930.500</td> <td>1,353.500</td> <td>1,174.000</td> </tr> <tr> <td>Lower quartile</td> <td>749.000</td> <td>802.750</td> <td>1,142.750</td> <td>1,096.500</td> </tr> <tr> <td>Min</td> <td>715.000</td> <td>711.000</td> <td>784.000</td> <td>851.000</td> </tr> <tr> <td>Mean</td> <td>785.250</td> <td>965.929</td> <td>1,521.979</td> <td>1,212.353</td> </tr> </tbody> </table> <p>The Competent Person considers the sample and analytical procedures acceptable for an early-stage project.</p>	Number of samples	8	28	48	34	Max	922.000	1,295.000	4,007.000	2,156.000	Upper quartile	794.000	1,100.500	1,648.500	1,251.000	Median	774.500	930.500	1,353.500	1,174.000	Lower quartile	749.000	802.750	1,142.750	1,096.500	Min	715.000	711.000	784.000	851.000	Mean	785.250	965.929	1,521.979	1,212.353
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<i>Verification of sampling and assaying</i>	<ul style="list-style-type: none"> <li>The verification of significant intersections by either independent or alternative company personnel.</li> <li>The use of twinned holes.</li> <li>Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.</li> <li>Discuss any adjustment to assay data.</li> </ul>	<ul style="list-style-type: none"> <li>No external verification or testing was completed during this evaluation.</li> <li>No holes have been twinned.</li> <li>All original assay data is stored in a csv database in an as-received basis with no adjustment to the returned data.</li> </ul>																																			
<i>Location of data points</i>	<ul style="list-style-type: none"> <li>Accuracy and quality of surveys used to locate drill holes (collar and down-hole surveys), trenches, mine workings and other locations used in Mineral Resource estimation.</li> <li>Specification of the grid system used.</li> <li>Quality and adequacy of topographic control.</li> </ul>	<ul style="list-style-type: none"> <li>Data is stored in UTM NAD 83 Zone 11N projection format.</li> <li>2017 and 2023 drill location and 2022 soil auger data were obtained using handheld GPS.</li> <li>Data points were generally well-constrained for X-Y coordinates but less reliable for Z coordinates.</li> <li>Gravity survey points (2017) were surveyed using a Topcon RTK differential GPS system, and are well-constrained in the X, Y and Z directions.</li> <li>MT sites (2016) were surveyed using handheld Garmin 600 GPS units.</li> <li>Topographic control is from ESRI base map: Source: Esri, HERE, Garmin, Intermap, increment P Corp., GEBCO, USGS, FAO, NPS, NRCAN, GeoBase, IGN, Kadaster NL, Ordnance Survey, Esri Japan, METI, Esri China (Hong Kong),<sup>©</sup>.</li> </ul>																																			
<i>Data spacing and distribution</i>	<ul style="list-style-type: none"> <li>Data spacing for reporting of Exploration Results.</li> <li>Whether the data spacing and distribution is sufficient to establish the degree of geological and grade continuity appropriate for the Mineral Resource and Ore Reserve estimation procedure(s) and classifications applied.</li> <li>Whether sample compositing has been applied.</li> </ul>	<ul style="list-style-type: none"> <li>No resource estimation has been made on the Property.</li> <li>Data spacing for surveys: gravity (529 stations on nominal 50 m grid), MT (17 sites at 200 m spacing on one line), and soils surveys (643 samples collected on 400 m traverse spacing with individual samples collected at both 400 m and 200 m spacing along each traverse).</li> <li>Data point spacing considered sufficient for early-stage exploration.</li> </ul>																																			
<i>Orientation of data in relation to</i>	<ul style="list-style-type: none"> <li>Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type.</li> <li>If the relationship between the drilling orientation and the orientation of key mineralised structures is considered to have introduced a sampling bias, this should be assessed and reported if material.</li> </ul>	<ul style="list-style-type: none"> <li>Gravity and soil grids were approximately rectilinear grids, with N-S, EW orientation for uniform coverage. MT was one transect to provide depth cross-section of basin.</li> <li>No oriented drilling has been conducted on the Property.</li> </ul>																																			

Criteria	JORC Code explanation	Commentary
<i>geological structure</i>		
<i>Sample security</i>	<ul style="list-style-type: none"> <li>The measures taken to ensure sample security.</li> </ul>	<ul style="list-style-type: none"> <li>Site employees were the only personnel handling soil samples and water samples.</li> <li>Samples were given a unique sample number that was provided for analysis.</li> <li>Laboratory services were in secure compounds.</li> </ul>
<i>Audits or reviews</i>	<ul style="list-style-type: none"> <li>The results of any audits or reviews of sampling techniques and data.</li> </ul>	<ul style="list-style-type: none"> <li>No independent audit of work on the Property has been conducted.</li> </ul>

## Section 2 Reporting of Exploration Results

Criteria	JORC Code explanation	Commentary
<i>Mineral tenement and land tenure status</i>	<ul style="list-style-type: none"> <li>Type, reference name/number, location and ownership including agreements or material issues with third parties such as joint ventures, partnerships, overriding royalties, native title interests, historical sites, wilderness or national park and environmental settings.</li> <li>The security of the tenure held at the time of reporting along with any known impediments to obtaining a licence to operate in the area.</li> </ul>	<ul style="list-style-type: none"> <li>The Scotty Lithium Property is located approximately 189 km northwest of Las Vegas, NV and 38 km northwest of Beatty, NV. The Property is located west Highway 95. From Beatty, NV, the Property can be accessed by travelling north on Highway 95 for approximately 57 km to Scotty's Junction. From there, turn west on Nevada State Highway 267 towards Bonnie Claire for approximately 10 km. Following that, a pre-existing overland trail trends southeast towards the Sarcobatus Flat which crosses portions of the Property.</li> <li>The Scotty Lithium Property consists of 962 contiguous placer mining claims, totalling 7,786.15 ha (Figure 21, Appendix 2). The claims cover portions of Nevada Townships (T) and Ranges (R) T8S R43E &amp; R44E, T9S R44E &amp; R45E, and T10S R44E &amp; R45E; all of which lie within Nye County, Nevada. Nevada Mining Claim (NMC) numbers, filing dates and other claim data are listed in Appendix 2</li> <li>The SFL claims were located between January 3, 2022, through January 18, 2022, with a filing date of March 29, 2022, and a disposition date between April 26, 2022, and May 5, 2022. These claims were acquired by an option agreement between Loyal Lithium and American Consolidated Limited (dba Playa Minerals Company) dated February 22, 2022.</li> </ul>
<i>Exploration done by other parties</i>	<ul style="list-style-type: none"> <li>Acknowledgment and appraisal of exploration by other parties.</li> </ul>	<ul style="list-style-type: none"> <li>Lithium exploration in the Bonnie Claire basin is quite recent</li> <li>Iconic Minerals Ltd has conducted work on their adjacent property including drilling and testing of lithium brines and clays (PEA NI 43-101 technical report 2022-11-11)</li> <li>Caeneus Minerals Ltd. ("Caeneus") acquired claims covering the southern part of the Property and conducted a magnetotelluric survey (MT) in 2016 on one line to characterize an inverted two-dimensional resistivity structure cross-section of the basin (Figure 4.3). A distinct modeled layer with several resistivity lows presents a potential target brine aquifer.</li> <li>In 2017 Caeneus contracted a Bouger gravity survey of its property to map the basin subsurface. Three-dimensional modeling of the gravity returned a voxel model with density range of 2.05 to 3.2 g/cc (Figure 4.6). The lower density zone on the northern survey area models as a broad and deep zone that may extend up to 3 km. It is possible that the low-density zone reflects lower density basin fill alluvium.</li> <li>In 2017 Caeneus also drilled one RC hole to 115.8 m. The hole was abandoned early due to poor ground conditions.</li> </ul>
<i>Geology</i>	<ul style="list-style-type: none"> <li>Deposit type, geological setting and style of mineralisation.</li> </ul>	<ul style="list-style-type: none"> <li>The Scotty Lithium Property lies within the western and southwestern margins of the Bonnie Claire Basin, which is within the southwestern margin of the Basin and Range geologic province of Nevada. The property lies within a closed basin, where horst and graben style normal faulting is the dominant structural component.</li> </ul>

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- The closed basins that host lithium brines around the world have been divided into two types by Houston et al. (2011); mature basins and immature basins. The Clayton Valley, Nevada is considered an immature basin (Spanjers, 2015). The Bonnie Claire basin is of similar age and structural history to Clayton Valley, about 75 km to the NW and is assumed to be an immature, closed basin. The hydrogeological setting of a closed basin bears on its lithium brine potential. Lithium brines develop slowly over time through the effects of evaporative concentration of surface waters and upwelling groundwater in closed basins. Consequently, the magnitude of lithium enrichment is affected by the age of the catchment basin, size of the catchment basin, evaporation rates, mass flux of dissolved lithium in groundwater and surface water entering the playa basin, and the availability of source rocks containing lithium that can be dissolved by groundwater.
- Local to the project area, the Bonnie Claire Basin is the lowest topographic elevation in a series of floodplains, where the basin receives surface drainage from approximately 1,200 km<sup>2</sup>. The plain and alluvial fans around it are bounded by faults on all sides, which are delineated by the Coba Mountains and Obsidian Butte to the east, Stonewall Mountains to the north, the Bullfrog and Sawtooth Mountains to the south, Grapevine Mountains to the southwest, and Mount Dunfee to the northwest. The basin lies within an extensional graben system between two northwest-southeast faults that are severed by another northeast-southwest fault structure, which in combination are a key component to controlling the playa extents. (Samari et al., 2021).
- Soil auger survey results demonstrate clays with up to 540 ppm Li on the Property.
- Drilling on the adjacent Iconic Minerals Bonnie Claire property indicates the lithium profile with depth is consistent from hole to hole. The unweighted lithium content averages 778 ppm for all 435 samples assayed, with an overall range of 18 to 2,250 ppm. The average sample interval length is 6.09 m (20 ft) (Samari et al., 2021).

*Drill hole Information*

- A summary of all information material to the understanding of the exploration results including a tabulation of the following information for all Material drill holes:
  - easting and northing of the drill hole collar
  - elevation or RL (Reduced Level – elevation above sea level in metres) of the drill hole collar
  - dip and azimuth of the hole
  - down hole length and interception depth
  - hole length.
- If the exclusion of this information is justified on the basis that the information is not Material and this exclusion does not detract from the understanding of the report, the Competent Person should clearly explain why this is the case.

- One RC drill hole on the Property

**2017 Drillhole Summary**

Hole ID	Easting (m)	Northing (m)	Elevation (m)	Azimuth (°)	Dip (°)	DDH Depth (m)	Hole Diameter
SS17-01	503253	4110775	1206.7	-	90	115.82	5 ¾ "

**Drillhole Brine Sample Summary**

Sample ID	Date Collected	Collection Time (hrs)	Li (mg/L)	B (mg/L)	Na (mg/L)	Ca (mg/L)	Mg (mg/L)	K (mg/L)
SS17-01-01	6/24/2017	13:00	<2.0	14.3	4980.0	16.8	<10	87.0
SS17-01-02	6/23/2017	13:30	<2.0	<2.0	95.3	150.0	36.4	67.6
SS17-01-03	6/25/2017	13:10	<2.0	<2.0	130.0	340.0	99.5	112.0
SS17-01-04	6/25/2017	15:44	<2.0	<2.0	96.1	55.0	27.9	40.6

- An additional three (3) sonic drillholes completed in 2023. Coordinates in UTM\_WGS84\_zone 11 north



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<i>Data aggregation methods</i>	<ul style="list-style-type: none"> <li><i>In reporting Exploration Results, weighting averaging techniques, maximum and/or minimum grade truncations (eg cutting of high grades) and cut-off grades are usually Material and should be stated.</i></li> <li><i>Where aggregate intercepts incorporate short lengths of high grade results and longer lengths of low grade results, the procedure used for such aggregation should be stated and some typical examples of such aggregations should be shown in detail.</i></li> <li><i>The assumptions used for any reporting of metal equivalent values should be clearly stated.</i></li> </ul>	<ul style="list-style-type: none"> <li>A cut-off grade of 700 ppm for lithium was used. This is in accordance with studies conducted on neighboring properties</li> <li>No aggregate intercepts were used. Samples were comprised of "run length" or interval lengths sampled in the field.</li> </ul>																																
<i>Relationship between mineralisation widths and intercept lengths</i>	<ul style="list-style-type: none"> <li><i>These relationships are particularly important in the reporting of Exploration Results.</i></li> <li><i>If the geometry of the mineralisation with respect to the drill hole angle is known, its nature should be reported.</i></li> <li><i>If it is not known and only the down hole lengths are reported, there should be a clear statement to this effect (eg 'down hole length, true width not known').</i></li> </ul>	<ul style="list-style-type: none"> <li>Sediments are unconsolidated alluvium. Drill hole and soil auger samples were nominally vertical, as sedimentation assumed to be horizontal.</li> <li>Only downhole lengths are reported, however the strata is relatively flat lying and true width of the lithium bearing sediments will most likely reflect the downhole lengths.</li> </ul>																																
<i>Diagrams</i>	<ul style="list-style-type: none"> <li><i>Appropriate maps and sections (with scales) and tabulations of</i></li> </ul>	<ul style="list-style-type: none"> <li>See Figure 1 through Figure 8 and Table 1</li> </ul>																																

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	<i>intercepts should be included for any significant discovery being reported These should include, but not be limited to a plan view of drill hole collar locations and appropriate sectional views.</i>																																				
<i>Balanced reporting</i>	<ul style="list-style-type: none"> <li>Where comprehensive reporting of all Exploration Results is not practicable, representative reporting of both low and high grades and/or widths should be practiced to avoid misleading reporting of Exploration Results.</li> </ul>	<ul style="list-style-type: none"> <li>There is no preferential reporting of results. A geologic model and constructed and Li assays were estimated and a weight average Li was determined on mass.</li> </ul>																																			
<i>Other substantive exploration data</i>	<ul style="list-style-type: none"> <li>Other exploration data, if meaningful and material, should be reported including (but not limited to): geological observations; geophysical survey results; geochemical survey results; bulk samples – size and method of treatment; metallurgical test results; bulk density, groundwater, geotechnical and rock characteristics; potential deleterious or contaminating substances.</li> </ul>	<ul style="list-style-type: none"> <li>Magnetotelluric and gravity studies by Caeneus indicate basin depth up to 3 km and low resistivity layer which is potential brine aquifer.</li> <li>2022 soil sampling results identified five target areas:</li> </ul> <p>Soil Target Area Classification and Attributes</p> <table border="1"> <thead> <tr> <th>Zone</th> <th>Characteristics</th> <th>Target Geology</th> <th>Samples &gt;200 ppm</th> <th>Samples &gt;264 ppm</th> <th>Max Li ppm</th> <th>&gt;165 ppm km<sup>2</sup></th> </tr> </thead> <tbody> <tr> <td>Target 1</td> <td>Northern Zone shallowing basin, combination of clays and alluvial fan with historical MT data suggesting potential for deeper sediments with basin</td> <td>Sediment</td> <td>39</td> <td>13</td> <td>540</td> <td>5.4</td> </tr> <tr> <td>Target 2</td> <td>Western Zone along the flanks of basin with lake sediments exposed in the west and late alluvial fan material in the east</td> <td>Sediment</td> <td>99</td> <td>61</td> <td>448</td> <td>10.0</td> </tr> <tr> <td>Target 3</td> <td>Easter zone long strike of Bonnie Claire. Alluvial Fan, lake clays and evaporites</td> <td>Sediment</td> <td>17</td> <td>9</td> <td>421</td> <td>2.3</td> </tr> <tr> <td>Target 4</td> <td>Southern extension of Bonnie Claire deep sediments and brine targets suggested from historical MT Data</td> <td>Sediment &amp; Brine</td> <td>15</td> <td>5</td> <td>364</td> <td>7.0</td> </tr> </tbody> </table>	Zone	Characteristics	Target Geology	Samples >200 ppm	Samples >264 ppm	Max Li ppm	>165 ppm km <sup>2</sup>	Target 1	Northern Zone shallowing basin, combination of clays and alluvial fan with historical MT data suggesting potential for deeper sediments with basin	Sediment	39	13	540	5.4	Target 2	Western Zone along the flanks of basin with lake sediments exposed in the west and late alluvial fan material in the east	Sediment	99	61	448	10.0	Target 3	Easter zone long strike of Bonnie Claire. Alluvial Fan, lake clays and evaporites	Sediment	17	9	421	2.3	Target 4	Southern extension of Bonnie Claire deep sediments and brine targets suggested from historical MT Data	Sediment & Brine	15	5	364	7.0
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<i>Further work</i>	<ul style="list-style-type: none"> <li>The nature and scale of planned further work (eg tests for lateral extensions or depth extensions or large-scale step-out drilling).</li> <li>Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive.</li> </ul>	<ul style="list-style-type: none"> <li>Recommended follow-up work:</li> </ul> <p>Based on the success and completion of the planned 2023 sonic drilling program, a secondary phase of work is recommended. The work program should consist of the following and be commenced upon successful completion of the 2023 sonic drilling program:</p> <ul style="list-style-type: none"> <li>Drilling of 6 additional sonic holes to verify geologic continuity</li> <li>Desktop data compilation, validation and reporting</li> <li>Preliminary metallurgical study utilizing samples collected from planned 2023 drilling</li> <li>JORC compliant inferred resource estimate based historical and 2023 exploration work</li> </ul> <p>Estimated costs for the resource evaluation and metallurgical work are presented in the table below.</p> <ul style="list-style-type: none"> <li><b>2023 Scotty Lithium Proposed Exploration Budget</b></li> </ul> <table border="1"> <thead> <tr> <th colspan="2"><b>Resource Evaluation and Metallurgical Work (April 1, 2023, to April 1, 2024)</b></th> </tr> </thead> <tbody> <tr> <td>Data compilation and reporting</td> <td>\$30,000</td> </tr> <tr> <td>Metallurgical test work</td> <td>\$80,000</td> </tr> <tr> <td>JORC compliant inferred resource estimate</td> <td>\$30,000</td> </tr> <tr> <td><b>TOTAL (April 1, 2023 to April 1, 2024)</b></td> <td><b>\$140,000</b></td> </tr> </tbody> </table>	<b>Resource Evaluation and Metallurgical Work (April 1, 2023, to April 1, 2024)</b>		Data compilation and reporting	\$30,000	Metallurgical test work	\$80,000	JORC compliant inferred resource estimate	\$30,000	<b>TOTAL (April 1, 2023 to April 1, 2024)</b>	<b>\$140,000</b>
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