

## Drilling Commences at Hole 7 and Hole 6 Intersects Lithium-Rich Brines at Solaroz Lithium Project

### SUMMARY

- Drilling has commenced at Hole 7 (SOZDD007), being the first drillhole to test the conductive brines located in the Northern Block of concessions on the Olaroz Salar.
- SOZDD007 represents a step-out drillhole from the resource area encompassing the initial maiden JORC Inferred Mineral Resource Estimate (MRE) of 3.3 Million tonnes of Lithium Carbonate Equivalent (LCE) at Solaroz.
- Drillhole 6 (SOZDD006) has encountered lithium-rich brines in the upper aquifer and lower (Deep Sand Unit) aquifer, with a **total intersection of 164 metres** (to date) and **lithium concentrations** of up to **448 mg/l**.
- SOZDD006 is currently at ~440 metres with a target hole depth of ~500 metres below surface, as indicated by previous geophysics.
- Drillholes 4 (SOZDD004) and 5 (SOZDD005) have been completed, with final brine and core assays and geophysical hole logging results pending review/analysis.

Lithium Energy Limited (ASX:LEL) (**Lithium Energy** or **Company**) is pleased to provide a drilling update at the Company's flagship Solaroz Lithium Brine Project in Argentina, located next to Allkem's Lithium Facility in the Salar de Olaroz basin (the **Olaroz Salar**) in the heart of South America's world renowned 'Lithium Triangle' (**Solaroz**) (refer Figure 3).

Lithium Energy has recently delineated an initial maiden **JORC Inferred Mineral Resource Estimate (MRE)** of **3.3 Million tonnes of Lithium Carbonate Equivalent (LCE)** from the eastern portions of the the 'Central Block' (Chico I, V and VI, Payo 2 South and Silvia Irene) and the southern Mario Angel concession (364ha) totalling 4,777 hectares out of the total ~12,000 hectare area of the Solaroz concessions (refer Figure 3).<sup>1</sup>

### Drillhole 7 – SOZDD007 (Payo 1 concession)

Drillhole 7 (SOZDD007, on the Payo 1 concession; refer Figure 3) is the first hole to test the 'Northern Block' (Payo 1 and Payo 2 North) (totalling ~2,731 hectares) of Solaroz concessions, located outside of the area covered by the recent MRE. SOZDD007 is a step-out drillhole from the resource area encompassing the initial 3.3Mt LCE Mineral Resource at Solaroz, to test conductive brines identified by geophysics in this relatively large, previously undrilled Northern Block area.

Based on the interpretation of previously conducted geophysical surveys, Lithium Energy proposes to drill Hole 7 to a target depth of ~500 metres below surface to test the extent of lithium mineralisation.

<sup>1</sup> Refer LEL ASX Announcement dated 29 June 2023: Significant Maiden JORC Lithium Resource of 3.3Mt LCE at Solaroz Project in Argentina





*Figure 1: Diamond Drill Rig at SOZDD0007, Payo 1 Concession on Olaroz Salar*

### Drillhole 6 – SOZDD006 (Chico VI concession)

Drilling at Drillhole 6 (SOZDD006, on the Chico VI concession, refer Figure 3) is ongoing with assay results received to date confirming a total **164 metre intersection of lithium-rich brines** (across the upper and lower aquifers) with concentrations of up to **448 mg/l Lithium** to date (with hole completion pending), including as follows:

- Significant **131 metre intersection** of conductive brines encountered across the upper aquifer, from a depth of 134 to 265 metres, in brine hosting unconsolidated sandstone units and fine gravels - assays have returned Lithium concentrations of up to **354 mg/l**.
- The transition from the upper to lower aquifers is evidenced by a clay (lateral halite equivalent) layer of 22 metres encountered from a depth of ~265 to 287 metres.
- The lower aquifer (Deep Sand Unit) commences at a depth of ~287 metres, in brine hosting sandstone units and some unconsolidated conglomerates, **intersecting 33 metres** of lithium-rich brines from ~287 to 320 metres (to the depth of the last packer sample taken to date) - assays (to date) have returned Lithium concentrations of up to **448mg/l**.
- Conductive brines are generally increasing in conductivity and density at depth, as on-going drilling progresses into the Deep Sand Unit, with a current hole depth of ~440 metres.
- Sampling for lithium mineralisation in the conductive brines are being progressively undertaken.
- Target hole depth to basement is expected to be ~580 metres
- The results of the brine samples for SOZDD006 (to date) are shown in Table 1.
- The lithology stratigraphy of SOZDD006 is illustrated in Figure 2.

The Company notes that whilst SOZDD006 is located within the Central Block area covered by the recent 3.3Mt LCE MRE, assay data from SOZDD006 was not available at the time of the MRE. The assay results from SOZDD006 received to date are broadly consistent with the interpolated estimates made in the MRE relating to the vicinity of SOZDD006.

**Table 1 : Results of Brine Sampling at Drillhole SOZDD006**

Zones	Intersection Samples	Hole Depth Range		Li mg/l	Mg mg/l	Mg/Li	Conductivity (mS/cm)	pH	TDS (g/l)	Flow Rate (l/min)	Density (g/ml)
		From (m)	To (m)								Ratio
Fresh to Brackish Zone	1AL	67	71	25	187	7.48	28.26	7.44	14.1	12.5	1.01
	2AL	107	110	Not assayed			124.6	7.2	62.3	8.3	1.02
Upper Aquifer	3AL	134	152	214	509	2.37	179.4	7.33	89.84	3.07	1.1
	4	152.5	176.5	327	785	2.40	228.2	6.97	114	3.03	1.15
	5	176.5	200	331	708	2.14	235	7	117	3.38	1.16
	6	200	224.5	<b>354</b>	741	2.09	236.4	6.67	118	2.2	1.17
Lateral Halite Equivalent Unit	7	227.5	248.5	372	813	2.18	237.8	6.71	119	2.0	1.17
	8	272.5	296.5	328	666	2.03	218	6.82	109	0.3	1.14
Lower Aquifer	9	296	320	<b>448</b>	675	1.50	244	6.6	123	3.3	1.19
	10	344	368	Assays pending			249.8	6.58	125.9	2	1.2
	11	416	440	Assays pending			247	6.5	124	1.3	1.2
	Drilling continuing in brines; current depth of drillhole at ~440m; further sampling ongoing										

**Notes:**

- (1) A tri-cone pre-collar has been isolated at a drill hole depth of ~45 metres, to separate the fresh/brackish water and to prevent dilution with the sampling and assaying of the deeper brines.
- (2) Sampling were initially conducted using airlift and pumping (designated with 'AL' in the Sample ID), before transitioning to the use of single packers.
- (3) Exact aquifer/interval boundaries will be determined after completion of geophysical logging of the hole.

**Drillholes 4 (SOZDD004) and 5 (SOZDD005)**

Drilling at Hole 4 (SOZDD004, on the Chico I concession, refer Figure 3) was completed to a depth of ~787.5 metres.

Drilling at Hole 5 (SOZDD005, on the Chico VI concession, refer Figure 3) was completed to a depth of ~690 metres.

Geophysical logging has been completed at both SOZDD004 and SOZDD005, where measurements were undertaken for total porosity, specific yield, conductivity, resistivity and spectral gamma.<sup>2</sup>

Assays from brine samples and core samples (currently being analysed at a laboratory in the US) and geophysical logging results are pending review/analysis.

The final assay and geophysical logging results for SOZDD004 and SOZDD005 will be released in due course at the conclusion of the Company's review/analysis.

<sup>2</sup> Refer also LEL ASX Announcement dated 15 May 2023: Further Assays Confirm Significant Lithium Brine Concentrations Across Massive Intersections at Solaroz

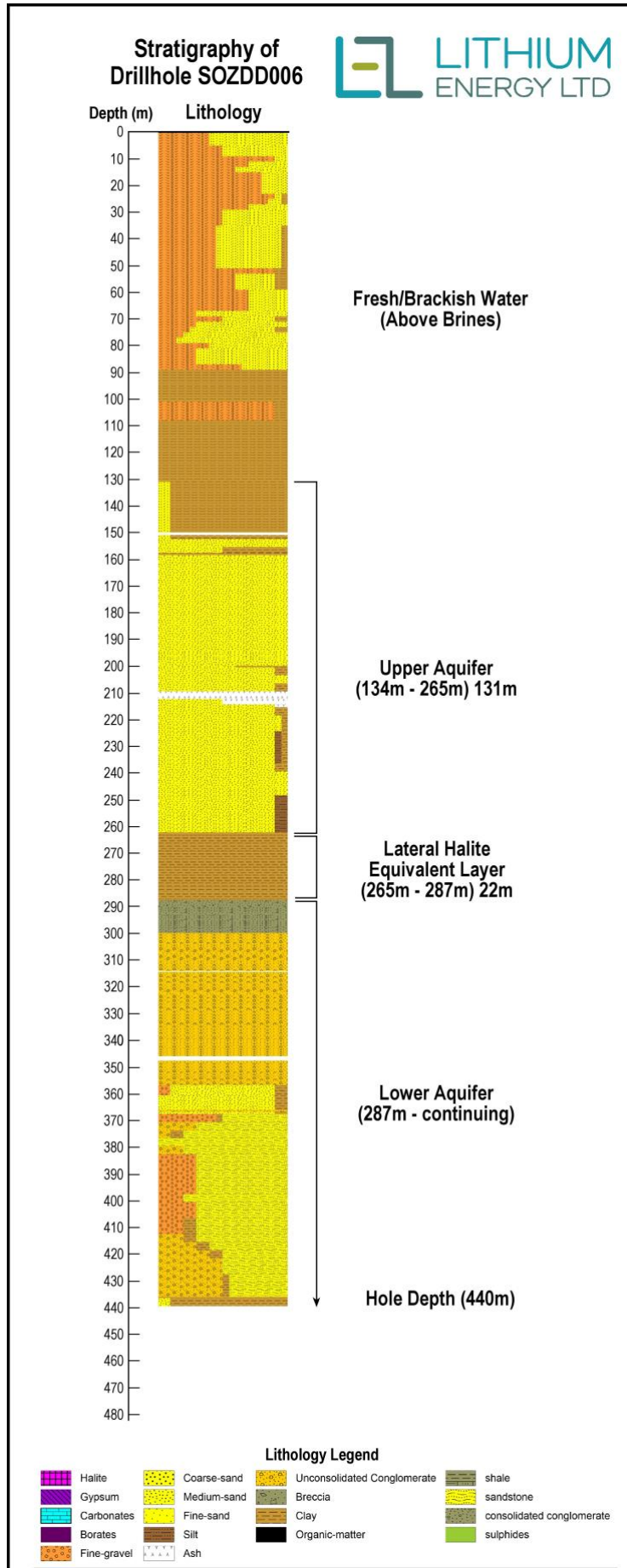
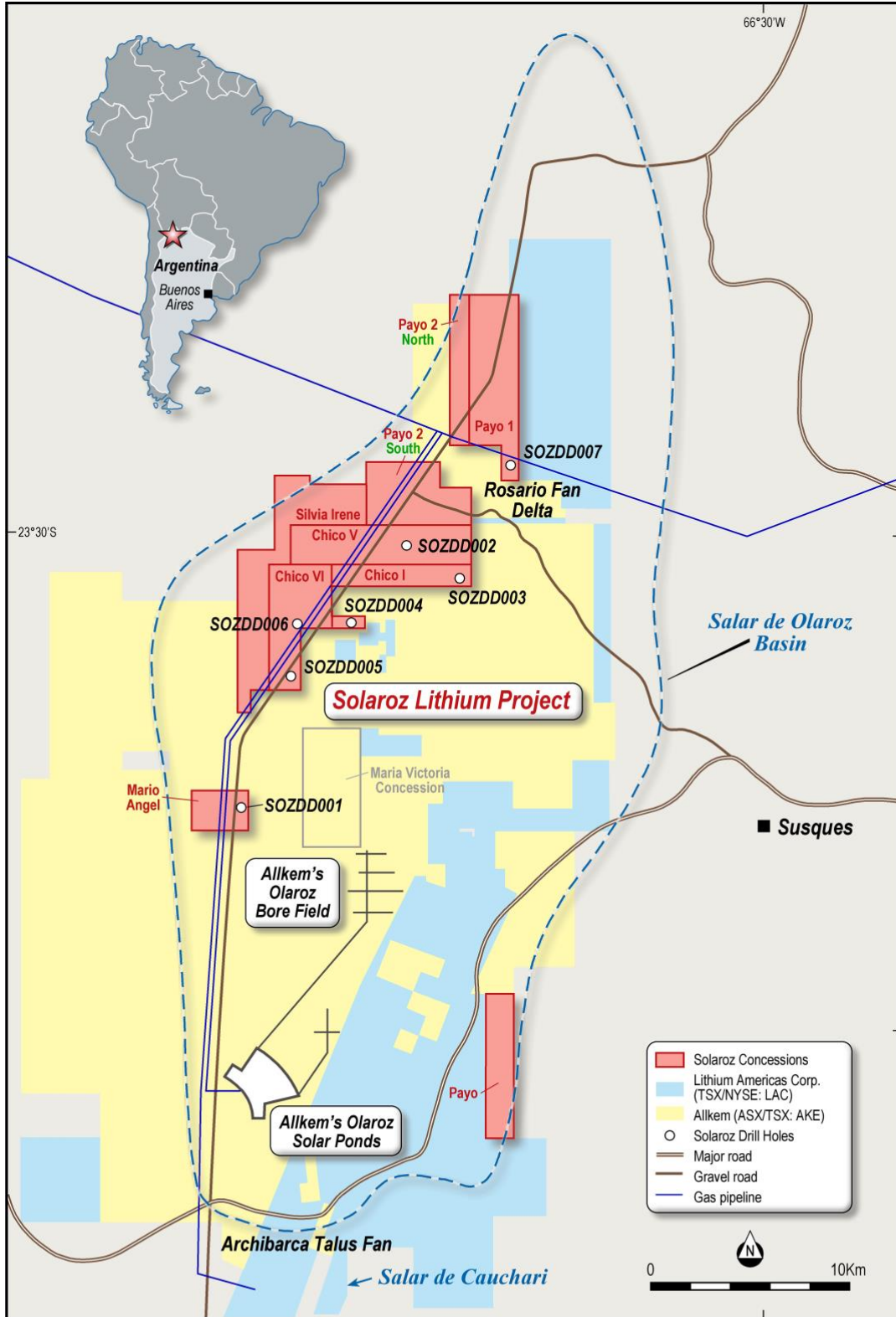


Figure 2: Drillhole Stratigraphy for SOZDD006



**Solaroz Lithium Project, Argentina**  
**Solaroz Concessions Location Plan**

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Figure 3: Solaroz Drill Hole Locations within Solaroz Concessions in Olaroz Salar (Adjacent to Allkem and Lithium Americas Concessions)

### Mineral Resource Estimate

Lithium Energy has delineated an initial maiden JORC Inferred Mineral Resource Estimate (MRE) of **3.3Mt of LCE** (as outlined in Table 2). Within the 3.3Mt LCE Resource, there is a **high-grade core of 1.34Mt of LCE** with an average concentration of **405 mg/l Lithium** (at a 350 mg/l Lithium cut-off grade) (as outlined in Table 3).

**Table 2: Solaroz JORC Inferred Mineral Resource Estimate**

Units	Sediment Volume m <sup>3</sup>	Specific Yield %	Brine volume m <sup>3</sup>	Litres	Li mg/l	Li grams	Li Tonnes	LCE Tonnes
A (Upper Aquifer)	8,290,800,000	13.0	1,077,804,000	1,077,804,000,000	255	274,840,020,000	274,840	1,460,000
B (Halite Salt Unit)	1,968,600,000	4.0	78,744,000	78,744,000,000	345	27,166,680,000	27,167	140,000
C (Lower Aquifer)	7,584,000,000	11.5	872,160,000	872,160,000,000	374	326,187,840,000	326,188	1,730,000
<b>Total</b>	<b>17,843,400,000</b>	<b>11.4</b>	<b>2,028,708,000</b>	<b>2,028,708,000,000</b>	<b>310</b>	<b>628,194,540,000</b>	<b>628,195</b>	<b>3,330,000</b>

Notes:

- (a) The Mineral Resource Estimate encompasses the Mario Angel, Chico I, Chico V, Chico VI, Payo 2 South and Silvia Irene concessions
- (b) Lithium (Li) is converted to lithium carbonate (Li<sub>2</sub>CO<sub>3</sub>) equivalent (LCE) using a conversion factor of 5.323
- (c) Totals may differ due to rounding
- (d) Reported at a zero Lithium mg/l cut-off grade

**Table 3: High-Grade Core within Solaroz JORC Inferred Mineral Resource Estimate**

Units	Sediment Volume m <sup>3</sup>	Specific Yield %	Brine volume m <sup>3</sup>	Litres	Li mg/l	Li grams	Li Tonnes	LCE Tonnes
A	325,000,000	13.0	42,250,000	42,250,000,000	376	15,886,000,000	16,000	85,000
B	690,400,000	4.0	27,616,000	27,616,000,000	379	10,466,464,000	10,000	56,000
C	4,787,600,000	11.5	550,574,000	550,574,000,000	408	224,634,192,000	225,000	1,195,000
<b>Total</b>	<b>5,803,000,000</b>	<b>10.7</b>	<b>620,440,000</b>	<b>620,440,000,000</b>	<b>405</b>	<b>250,986,656,000</b>	<b>251,000</b>	<b>1,340,000</b>

Notes:

- (a) The high-grade core is a JORC Inferred Mineral Resource estimated within the mineralisation envelope of (not in addition to) the Mineral Resource Estimate outlined in Table 2
- (b) Reported at a 350 mg/l Lithium cut-off grade
- (c) Refer Notes (b) and (c) of Table 2

For further details, refer to the Company's ASX Announcement dated 29 June 2023 entitled "Significant Maiden JORC Lithium Resource of 3.3Mt LCE at Solaroz Project in Argentina".

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**ABOUT LITHIUM ENERGY LIMITED (ASX:LEL)**

Lithium Energy Limited is an ASX listed battery minerals company which is developing its flagship Solaroz Lithium Brine Project in Argentina and the Burke and Corella Graphite Projects in Queensland. The Solaroz Lithium Project (LEL:90%) comprises 12,000 hectares of highly prospective lithium mineral concessions (where an initial JORC Inferred Mineral Resource of lithium has been delineated) located strategically within the Salar de Olaroz Basin in South America's "Lithium Triangle" in north-west Argentina. Lithium Energy shares the lithium rights in the Olaroz Salar basin with lithium carbonate producers Allkem Limited (ASX/TSX:AKE) and Lithium Americas Corporation (TSX/NYSE:LAC). The Burke and Corella Graphite Projects (LEL:100%) in Queensland, Australia, contains high grade JORC Indicated and Inferred Mineral Resources of graphite; Lithium Energy is undertaking a Prefeasibility Study on a proposed vertically integrated battery anode material manufacturing facility in Queensland.

**JORC CODE COMPETENT PERSONS' STATEMENTS**

(1) The information in this document that relates to Exploration Results (in relation to drillholes SOZDD006 and SOZDD007) in relation to the Solaroz Lithium Brine Project are based on information compiled by Mr Peter Smith, BSc (Geophysics) (Sydney) AIG ASEG, a Competent Person who is a Member of the Australian Institute of Geoscientists (AIG). Mr Smith is an Executive Director of the Company. Mr Smith has sufficient experience which is relevant to the style of mineralisation and type of deposit under consideration and to the activity being undertaken to qualify as a Competent Person as defined in the 2012 Edition of the 'Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves' (the **JORC Code**). Mr Smith consents to the inclusion in this document of the matters based on his information in the form and context in which it appears.

(2) The information in this document that relates to Mineral Resources (and the interpretation and reporting of Exploration Results related thereto) in relation to the Solaroz Lithium Brine Project is extracted from the following ASX market announcements made by Lithium Energy Limited dated:

- 29 June 2023 entitled "Significant Maiden JORC Lithium Resource of 3.3Mt LCE at Solaroz Project in Argentina"

The information in the original announcement is based on information compiled by Mr Murray Brooker (MAIG, MIAH), a Competent Person who is a Member of AIG. Mr Brooker is an employee of Hydrominex Geoscience Pty Ltd, an independent consultant to Lithium Energy Limited. Mr Brooker has sufficient experience which is relevant to the style of mineralisation and type of deposit under consideration and to the activity being undertaken to qualify as a Competent Person as defined in the JORC Code. The Company confirms that it is not aware of any new information or data that materially affects the information included in the original market announcement (referred to above). The Company confirms that the form and context in which the Competent Person's findings are presented have not been materially modified from the original market announcement (referred to above).

(3) The information in this document that relates to other Exploration Results in relation to the Solaroz Lithium Brine Project is extracted from the following ASX market announcements made by Lithium Energy Limited dated:

- 29 June 2023 entitled "Significant Maiden JORC Lithium Resource of 3.3Mt LCE at Solaroz Project in Argentina"
- 1 June 2023 entitled "Hole 6 Intersects Conductive Brines in Upper Aquifer at Solaroz Lithium Brine Project"
- 15 May 2023 entitled "Further Assays Confirm Significant Lithium Brine Concentrations Across Massive Intersections at Solaroz"
- 12 May 2023 entitled "Massive Intersections of Brine Continue at Solaroz at up to ~780 Metre Depth"
- 1 May 2023 entitled "Massive Intersections of Lithium Rich Brine Confirm World Class Potential of Solaroz Lithium Project"
- 19 April 2023 entitled "Holes 4 and 5 Encounter Significant Intersections of Conductive Brines at Solaroz Lithium Project"

- 14 March 2023 entitled "Further Significant Lithium Discovery Extends Mineralisation at Solaroz Lithium Brine Project"
- 10 March 2023 entitled "Positive Specific Yields and Significant Averaged Lithium Concentrations in SOZDD001 at Solaroz Lithium Brine Project"
- 18 August 2022 entitled "Highly Encouraging Geophysics Paves Way for Commencement of Drill Testing of Brines at Solaroz"
- 9 May 2022 entitled "Geophysics Expanded Across all Concessions to Refine Drill Targets at Solaroz Lithium Project"
- 26 May 2021 entitled "Geophysical Data Supports Highly Encouraging Exploration Potential for Solaroz"

The information in the original announcements is based on information compiled by Mr Peter Smith (BSc (Geophysics) (Sydney) AIG ASEG), a Competent Person who is a Member of AIG. Mr Smith is an Executive Director of Lithium Energy Limited. Mr Smith has sufficient experience that is relevant to the style of mineralisation and type of deposit under consideration and to the activity being undertaken to qualify as a Competent Person as defined in the JORC Code. The Company confirms that it is not aware of any new information or data that materially affects the information included in the original market announcements (referred to above). The Company confirms that the form and context in which the Competent Person's findings are presented have not been materially modified from the original market announcements (referred to above).

#### FORWARD LOOKING STATEMENTS

This document contains "forward-looking statements" and "forward-looking information", including statements and forecasts which include without limitation, expectations regarding future performance, costs, production levels or rates, mineral reserves and resources, the financial position of Lithium Energy, industry growth and other trend projections. Often, but not always, forward-looking information can be identified by the use of words such as "plans", "expects", "is expected", "is expecting", "budget", "scheduled", "estimates", "forecasts", "intends", "anticipates", or "believes", or variations (including negative variations) of such words and phrases, or state that certain actions, events or results "may", "could", "would", "might", or "will" be taken, occur or be achieved. Such information is based on assumptions and judgements of management regarding future events and results. The purpose of forward-looking information is to provide the audience with information about management's expectations and plans. Readers are cautioned that forward-looking information involves known and unknown risks, uncertainties and other factors which may cause the actual results, performance or achievements of Lithium Energy and/or its subsidiaries to be materially different from any future results, performance or achievements expressed or implied by the forward-looking information. Such factors include, among others, changes in market conditions, future prices of minerals/commodities, the actual results of current production, development and/or exploration activities, changes in project parameters as plans continue to be refined, variations in grade or recovery rates, plant and/or equipment failure and the possibility of cost overruns. Forward-looking information and statements are based on the reasonable assumptions, estimates, analysis and opinions of management made in light of its experience and its perception of trends, current conditions and expected developments, as well as other factors that management believes to be relevant and reasonable in the circumstances at the date such statements are made, but which may prove to be incorrect. Lithium Energy believes that the assumptions and expectations reflected in such forward-looking statements and information are reasonable. Readers are cautioned that the foregoing list is not exhaustive of all factors and assumptions which may have been used. Lithium Energy does not undertake to update any forward-looking information or statements, except in accordance with applicable securities laws.



**JORC CODE (2012 EDITION)**  
**CHECKLIST OF ASSESSMENT AND REPORTING CRITERIA**  
**FOR EXPLORATION RESULTS**

**Section 1 Sampling Techniques and Data**  
*(Criteria in this section apply to all succeeding sections)*

Criteria	Explanation	Comments
Sampling techniques	<ul style="list-style-type: none"> <li>Nature and quality of sampling (e.g. cut channels, random chips, or specific specialised industry standard measurement tools appropriate to the minerals under investigation, such as down hole gamma sondes, or XRF instruments, etc.). These examples should not be taken as limiting the broad meaning of sampling.</li> <li>Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used</li> <li>Aspects of the determination of mineralisation that are material to the Public report. In cases where 'industry standard' work has been done this would be relatively simple (e.g. 'reverse circulation drilling was used to obtain 1m samples from which 3kg was pulverised to produce a 30g 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 (e.g. submarine nodules) may warrant disclosure of detailed information.</li> </ul>	<p>The pre-collars from surface were drilled using the Tricone drilling method, and chips were logged as collected, to variable depths below surface, depending on the hole.</p> <p>The pre-collar was then cemented in and HQ Core drilled.</p> <p>Core recovery from the HQ was carefully measured by comparing the measured core to the core runs, and then a total recovery per section determined.</p> <p>HQ Drill core sampling was undertaken to obtain representative samples of the stratigraphy and sediments that host brine.</p> <p>Water/brine samples were taken from target intervals, using Single Packer (generally descending), Double Packer (generally ascending, as check samples) and Airlift sampling (depending on the condition of the drillhole)</p> <p>Brine was collected by purging isolated sections of the hole of all fluid, removing more than three volumes of the sampling chamber and drilling rods to minimise the possibility of contamination by drilling fluid. The hole was then allowed time to re-fill with ground water, where a sample for laboratory analysis is collected (~1.5L), with collection of the hole in triplicate.</p> <p>The casing lining the hole ensures contamination with water from higher levels in the borehole is likely prevented. Samples were taken systematically in the holes based upon geological logging and conductivity testing of water.</p> <p>Conductivity and Density measurements are taken with a field portable High Range Hanna multi parameter meter and floating densimeters.</p> <p>Testing of the chemical composition (including Lithium, Potassium, Magnesium concentrations) of brines are undertaken at a local laboratory in Argentina.</p> <p>At SOZDD006 - water/brine samples have been collected from various intervals, as outlined in Table 1.</p>
Drilling techniques	<ul style="list-style-type: none"> <li>Drill type (e.g. core, reverse circulation, open-hole hammer, rotary air blast, auger, Bangka, sonic etc.) and details (e.g. 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.).</li> </ul>	<p>The pre-collar from surface was drilled using Tricone drilling method; chips were logged as collected, to the pre-collar depth for the hole.</p> <p>The pre-collar was then isolated and drilling continued in HQ Core.</p> <p>Core recovery from the HQ was carefully measured by comparing the measured core to the core runs and then a total recovery per section determined.</p> <p>HQ Drill core sampling was undertaken to obtain representative samples of the stratigraphy and sediments that host brine.</p>
Drill sample recovery	<ul style="list-style-type: none"> <li>Method of recording and assessing core and chip sample recoveries and results assessed</li> <li>Measurements taken to maximise sample recovery and ensure representative nature of the samples.</li> </ul>	<p>Core recovery from the HQ was carefully measured by comparing the measured core to the core runs, and then a total recovery per section determined.</p> <p>No relationship exists between core recovery and lithium concentration, as the lithium is present in brine. Brine will be extracted and the sediments are not the target for lithium extraction.</p>

Criteria	Explanation	Comments
	<ul style="list-style-type: none"> <li>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.</li> </ul>	
Logging	<ul style="list-style-type: none"> <li>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.</li> <li>Whether logging is qualitative or quantitative in nature. Core (or costean, channel etc.) photography.</li> <li>The total length and percentage of the relevant intersections logged</li> </ul>	<p>Lithium Energy has geologists at each drillhole site logging the drill core 24/7.</p> <p>The core is logged by a senior geologist and contract geologists (who are overseen by the senior geologist). The senior geologist also supervises the taking of samples for laboratory analysis.</p> <p>Logging is both qualitative and quantitative in nature. The relative proportions of different lithologies which have a direct bearing on the overall porosity, contained and potentially extractable brine are noted, as are more qualitative characteristics such as the sedimentary facies. Cores are photographed.</p> <p>Physical samples of the core are also sent to the Geosystems Analysis porosity laboratory in Arizona (USA) for measurements of specific yield and total porosity.</p>
Sub-sampling techniques and sample preparation	<ul style="list-style-type: none"> <li>If core, whether cut or sawn and whether quarter, half or all core taken.</li> <li>If non-core, whether riffles, tube sampled, rotary split, etc. and whether sampled wet or dry.</li> <li>For all sample types, quality and appropriateness of the sample preparation technique.</li> <li>Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples.</li> <li>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.</li> <li>Whether sample sizes are appropriate to the grain size of the material being sampled.</li> </ul>	<p>Water/brine samples were collected by using an inflatable packer to purge the hole of all fluid, to minimise the possibility of contamination by drilling fluid. The packer allowed sampling of isolated sections of the hole, allowing the packer interval to re-fill with groundwater following purging. Samples were then taken from the relevant section, with three well volumes of brine purged where this was possible. Lower flows were obtained from the halite unit.</p> <p>Packer sampling is considered the most appropriate way for collecting brine samples. All methods have advantages and disadvantages.</p> <p>Field duplicate samples are collected in the field, with samples collected in triplicate. Single packer samples are taken during the progression of drilling. Once the hole is completed, double packer samples are taken in an upward progression leaving the hole, as a check on the initial single packer samples.</p> <p>Brine sample sizes are considered appropriate to be representative of the formation brine.</p> <p>Cores are geologically logged and ~30cm intervals from the base of Lexan tubes are collected every ~12m. These samples are cut from the bottom of the Lexan tubes and sealed with caps to prevent moisture loss, before sending to the Geosystems Analysis laboratory in the USA for testing. Cores are representative of the interval in which they are taken.</p>
Quality of assay data and laboratory tests	<ul style="list-style-type: none"> <li>The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total.</li> <li>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.</li> </ul>	<p>Samples are transported to the Geosystems Analysis (GSA) porosity testing laboratory in Arizona, USA. The laboratory has extensive experience testing core samples from salt lakes for porosity. Sub-samples are analysed in a secondary porosity laboratory, as a check on the GSA results.</p> <p>Brine samples were sent to the Alex Stewart International Laboratory in Jujuy, Argentina, where detailed chemistry was processed. The laboratory is ISO 9001 and ISO 14001 certified and specialises in the chemical analysis of brines and inorganic salts, with considerable experience in this field.</p> <p>Table 1 contains the field brine sampling results (to date), in respect of SOZDD006.</p>

Criteria	Explanation	Comments
	<ul style="list-style-type: none"> <li><i>Nature of quality control procedures adopted (e.g. standards, blanks, duplicates, external laboratory checks) and whether acceptable levels of accuracy (i.e. lack of bias) and precision have been established.</i></li> </ul>	<p>Field duplicate samples returned comparable values, within acceptable limits. Two certified standard samples are submitted regularly with the brine samples and analyses are considered to be acceptable. Blank distilled water samples are also submitted as part of the QA/QC regime, with 20% QA/QC samples (duplicates, standards, blanks).</p> <p>Samples are analysed in a secondary laboratory as an external check on the primary assay results. This is the Alex Stewart Laboratory in Mendoza, Argentina, where samples are submitted with different sample numbers to the primary samples.</p>
<i>Verification of sampling and assaying</i>	<ul style="list-style-type: none"> <li><i>The verification of significant intersections by either independent or alternative company personnel.</i></li> <li><i>The use of twinned holes</i></li> <li><i>Documentation of primary data, data entry procedures, data verification, data storage (physically and electronic) protocols.</i></li> <li><i>Discuss any adjustment to assay data.</i></li> </ul>	<p>Field duplicates, standards and blanks are used to monitor potential contamination of samples and the repeatability of analyses.</p> <p>Duplicate and blank samples were sent to the Alex Stewart Laboratory in Mendoza, Argentina, as blind duplicates and standards, for analysis in this secondary laboratory.</p> <p>Samples were accompanied by chain of custody documentation.</p> <p>Assay results were imported directly from laboratory spreadsheet files to the Project database.</p>
<i>Location of data points</i>	<ul style="list-style-type: none"> <li><i>Accuracy and quality of surveys used to locate drill holes (collar and down-hole surveys), trenches, mine workings and other locations used in Mineral Resources estimation.</i></li> <li><i>Specification of the grid system used.</i></li> <li><i>Quality and adequacy of topographic control.</i></li> </ul>	<p>Locations are positioned using modern Garmin handheld GPS units with an accuracy of +/- 5m.</p> <p>The grid system used is : POSGAR 94, Argentina Zone 3.</p> <p>Topographic control was obtained by handheld GPS units and the topography is mostly flat with very little relief.</p>
<i>Data spacing and distribution</i>	<ul style="list-style-type: none"> <li><i>Data spacing for reporting of Exploration Results.</i></li> <li><i>Whether the data spacing and distribution is sufficient to establish the degree of geological and grade continuity appropriate for the Mineral Reserve and Ore Reserve estimation procedure(s) and classifications applied.</i></li> <li><i>Whether sample compositing has been applied.</i></li> </ul>	<p>Water/brine samples were collected within isolated sections of the hole based upon the results of geological logging.</p> <p>Brine samples were collected with a frequency of every ~18 to ~24m down hole with single packer samples. Double packer sample frequency ascending in the holes depended on hole stability and other factors. Samples were taken over ~1m intervals, the limitation of the packer spacing, with samples taken less frequently than the descending single packer samples.</p> <p>Laboratory porosity samples were collected on a nominal ~12m spacing down hole, but samples analysed depended on the checking of sample condition at the laboratory.</p> <p>Samples were not composited for reporting.</p>
<i>Orientation of data in relation to geological structure</i>	<ul style="list-style-type: none"> <li><i>Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type.</i></li> <li><i>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</i></li> </ul>	<p>The brine concentrations being explored for generally occur as sub-horizontal layers and lenses hosted by conglomerate, gravel, sand, salt, silt and/or clay. Vertical diamond drilling is ideal for understanding this horizontal stratigraphy and the nature of the sub-surface brine bearing aquifers</p>

Criteria	Explanation	Comments
	<i>material.</i>	
<i>Sample security</i>	<ul style="list-style-type: none"> <li><i>The measures taken to ensure sample security.</i></li> </ul>	<p>Data was recorded and processed by trusted employees and contractors and overseen by senior management ensuring the data was not manipulated or altered.</p> <p>Samples are transported from each drill site to secure storage at the site camp on a daily basis.</p>
<i>Audits or reviews</i>	<ul style="list-style-type: none"> <li><i>The results of and audits or reviews of sampling techniques and data.</i></li> </ul>	<p>No audits or reviews have been conducted to date.</p> <p>Drilling is on-going. The Company's independent Competent Person (in respect of the recent delineation of a JORC Mineral Resource for the Project) has approved the procedures to date and visited the site (on multiple occasions) to review first-hand the drilling practice and logging, sampling, QA/QC controls and data management.</p>

## Section 2 Reporting of Exploration Results

(Criteria listed in the preceding section also apply to this section)

Criteria	Explanation	Comments
<i>Mineral tenement and land tenure status</i>	<ul style="list-style-type: none"> <li><i>Type, reference name/number, location and ownership including agreements or material issues with third parties such as joint ventures, partnerships, overriding royalties, native title interest, historical sites, wilderness or national park and environmental settings.</i></li> <li><i>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.</i></li> </ul>	<p>The Solaroz Lithium Brine Project comprises 8 concessions totalling approximately 12,000 hectares (<b>Solaroz Concessions or Project</b>) located in the Jujuy Province in northern Argentina (refer Figure 3):</p> <ol style="list-style-type: none"> <li>(1) Mario Angel – File N°1707-S-2011 (542.92ha)</li> <li>(2) Payo – File N°1514-M-2010 (987.62ha)</li> <li>(3) Payo 1 – File N°1516-M-2010 (1,973.24ha)</li> <li>(4) Payo 2 – File N°1515-M-2010 (2,192.63ha; comprising South block (1,435.13ha) and North block (757.5))</li> <li>(5) Chico I – File N°1229-M-2009 (835.24ha)</li> <li>(6) Chico V – File N°1312-M-2009 (1,800ha)</li> <li>(7) Chico VI – File N°1313-M-2009 (1,400.18ha)</li> <li>(8) Silvia Irene, File N°1706-S-2011 (2,348.13ha)</li> </ol> <p>The Company has a 90% shareholding in Solaroz S.A. (formerly Hananta S.A.), an Argentine company which, in turn, owns the Solaroz Concessions - refer to the Company's ASX announcement dated 31 October 2022 entitled "Early Exercise of Option to Acquire Solaroz Lithium Brine Project Concessions".</p>
<i>Exploration done by other parties</i>	<ul style="list-style-type: none"> <li><i>Acknowledgement and appraisal of exploration by other parties.</i></li> </ul>	<p>Extensive open file drilling, geochemistry, geophysical and development work from exploration to development, and an operating mine have been carried out by Allkem Limited (ASX/TSX:AKE) (formerly Orocobre Limited) (<b>Allkem or Orocobre</b>) and Lithium Americas Corporation (TSX/NYSE:LAC) (<b>Lithium Americas</b>).</p> <p>The Company has reviewed the relevant open file published documents and images relating to the Salar de Olaroz (<b>Olaroz Salar</b>) and from this review made its interpretations relating to the Company's Solaroz Concessions.</p> <p>The published data upon which the geological model for the Company's Solaroz Project has been developed includes the following works:</p> <ul style="list-style-type: none"> <li>Houston, J., Gunn, M., Technical Report on the Salar De Olaroz Lithium-Potash Project, Jujuy Province, Argentina. NI 43-101 report prepared for Orocobre Limited, 13 May 2011.</li> <li>Orocobre Limited ASX/TSX Announcement dated 23 October 2014 entitled "Olaroz Project - Large Exploration Target Defined Beneath Current Resource".</li> </ul>

Criteria	Explanation	Comments
		<ul style="list-style-type: none"> <li>• Allkem Limited ASX/TSX Announcement dated 27 March 2023, “Olaroz resource increases 27% to 20.7 million tonnes LCE”.</li> <li>• Reidel, F., Technical Report on Cauchari JV Project – Updated Mineral Resource Estimate, prepared for Advantage Lithium Corporation, 19 April 2019.</li> <li>• Orocobre Limited ASX/TSX Announcement dated 10 January 2019 entitled “Cauchari Drilling Update – Phase III Drilling Complete”.</li> <li>• Burga, E. et al, Technical Report - Updated Feasibility Study and Mineral Reserve Estimation to support 40,000 tpa Lithium Carbonate Production at the Cauchari-Olaroz Salars, Jujuy Province, Argentina, prepared for Lithium Americas Corporation, 30 September 2020.</li> <li>• Salfity Geological Consultants Map for Salar de Olaroz</li> </ul>
<p><i>Geology</i></p>	<ul style="list-style-type: none"> <li>• <i>Deposit type, geological settings and style of mineralisation.</i></li> </ul>	<p>The Salar de Olaroz originated as a structurally bounded, closed basin during the late Paleogene–Early Neogene. During much of the Miocene it appears to have slowly filled with medium to coarse grained alluvial fans and talus slopes eroded from the surrounding mountain ranges. As accommodation space was filled the sediments became progressively finer grained, braidplain, sandflat, playa and fluvial architectures are noted in the Upper Miocene and Pliocene. As the climate became more arid during the Pliocene evaporitic deposits first appeared. Normal faulting created additional accommodation space probably initiated at this time too.</p> <p>The lowest drilled sediments indicate an arid climate with abundant halite. These Units are probably Pleistocene in age and are likely contiguous with the lowest drilled and reported sediments in the Salar de Cauchari to the south, suggesting the two basins operated as a continuous hydrologic entity at that stage. Succeeding Units suggest continued subsidence in the centre of the basin, with a climate that was variable, but never as arid as during the period dominated by the abundant Halite development. Influx of water and sediment is primarily from the Rosario catchment at the north of Salar de Olaroz and alluvial fans around the edge of the basin.</p> <p>At depth a thick highly porous sand aquifer has been intersected in both the Salar de Cauchari (by Lithium Americas) and the Salar de Olaroz (by Orocobre). Due to its depth the aquifer was only intersected in a few holes, as of the 23 October 2014 Orocobre announcement. However, more recent drilling at Olaroz has confirmed the extent and importance of this unit.</p> <p>The significance of the ‘Deep Sand Unit’ is that sands of this type have free draining porosity of up to 25%, based on previous third party test work, and the sands unit could hold significant volumes of lithium-bearing brine which could be added to the resource base by future drilling” (per Orocobre’s 23 October 2014 announcement).</p>
<p><i>Drill hole Information</i></p>	<ul style="list-style-type: none"> <li>• <i>A summary of all information material for the understanding of the exploration results including a tabulation of the following information for all Material drill holes:</i></li> <li>• <i>Easting and northing of the drill hole collar</i></li> <li>• <i>Elevation or RL (Reduced</i></li> </ul>	<p>Drillhole ID: SOZDD006:</p> <ul style="list-style-type: none"> <li>• Easting: 3425341 E (POSGAR Zone 3 East)</li> <li>• Northing: 7419415 N (POSGAR Zone 3 North)</li> <li>• Vertical hole</li> <li>• Progress hole depth is ~440m</li> <li>• Hole completion pending the collection of brine samples and geophysical hole logging</li> </ul> <p>Drillhole ID: SOZDD007:</p>

Criteria	Explanation	Comments
	<p><i>level-elevation above sea level in metres) and the drill hole collar</i></p> <ul style="list-style-type: none"> <li><i>Dip and azimuth of the hole</i></li> <li><i>Down hole length and interception depth</i></li> <li><i>Hole length</i></li> <li><i>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.</i></li> </ul>	<ul style="list-style-type: none"> <li>• Easting: 3436083 E (POSGAR Zone 3 East)</li> <li>• Northing: 7427413 N (POSGAR Zone 3 North)</li> <li>• Vertical hole</li> <li>• Progress hole depth is ~440m</li> <li>• Hole completion pending the collection of brine and core samples and geophysical hole logging</li> </ul>
<i>Data aggregation methods</i>	<ul style="list-style-type: none"> <li>• <i>In reporting Exploration results, weighing averaging techniques, maximum and/or minimum grade truncations (e.g. 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>	<p>Where the Company has undertaken data aggregation:</p> <ul style="list-style-type: none"> <li>• Within a given defined aquifer, the Company has aggregated the assays based on a numerical average of the samples.</li> <li>• Total Porosity and Specific Yield are averaged over the aquifers' interpreted width, with the underlying Total Porosity and Specific Yield being collected at ~2cm intervals from down hole geophysical logging.</li> </ul> <p>Mg/Li ratio have been reported which is a standard representation.</p> <p>Elemental lithium has been converted to Lithium Carbonate Equivalent (<b>LCE</b>) using a conversion factor of 5.323 to convert Li to Li<sub>2</sub>CO<sub>3</sub>); reporting lithium values in LCE units is a standard industry practice.</p>
<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 (e.g. 'down hole length, true width not known')</i></li> </ul>	<p>It is assumed that the brine layers lie sub-horizontal and, given that the drillhole is vertical, that any intercepted thicknesses of brine layers would be of true thickness.</p>
<i>Diagrams</i>	<ul style="list-style-type: none"> <li>• <i>Appropriate maps and sections (with scales) and tabulations of intercepts would be included for any significant discovery being reported. These should include, but not be limited too plan view of drill hole collar</i></li> </ul>	<p>Figure 2 shows the drillhole lithology stratigraphy for SOZDD006 (to date).</p> <p>Figure 3 shows the location of the Solaroz Concessions (and relevant infrastructure) adjacent to the concessions held by Allkem and Lithium Americas, and the location of drillholes SOZDD001 to SOZDD007, on the Olaroz Salar.</p>

Criteria	Explanation	Comments
	<i>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>	<p>Historical and open file reports have been collated and are consistent across numerous companies' projects on the Olaroz Salar and Salar de Cauchari (to the south) - the Company has not validated these results but has no reason to doubt the balanced reporting of the various technical open file reports.</p> <p>The (progress) results in this announcement are from the sixth (SOZDD006) hole drilled by the Company on the Solaroz Concessions.</p>
<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 containing substances.</li> </ul>	<p>As part of the review of exploration results in the Olaroz Salar, the Company has analysed a number of Gravity and AMT surveys conducted by Orocobre, some of which were undertaken over or closely adjacent to the Solaroz Concessions. The proximity of these surveys has been very useful and highly encouraging for the Company to develop in greater detail an exploration outline for the Solaroz Concessions. The Gravity Line surveys undertaken by Orocobre were conducted principally to determine the depth below surface to the basement rock in the Olaroz Salar, which practically sets the lowest depth limit to which lithium-rich brines could be encountered in the basin. The AMT Line surveys (which measure resistivity) were conducted to identify the interfaces between fresh water and the more conductive brines, facilitating the identification of the location and extent of potentially lithium-rich brines occurring above the basement rock.</p> <p>The Company has undertaken its own geophysics programme across all the Solaroz Concessions, comprising:</p> <ul style="list-style-type: none"> <li>Passive seismic surveys, to determine the depth of the underlying basement rock (i.e. the theoretical limit of potential lithium mineralisation) underneath the concessions; and</li> <li>Transient Electromagnetic geophysics (<b>TEM</b>), to identify the location and thickness of potential lithium-hosting conductive brines underneath the Solaroz Concessions.</li> </ul> <p>Further details are also in the Company's ASX announcement dated 18 August 2022 entitled "Highly Encouraging Geophysics Paves Way for Commencement of Drill Testing of Brines at Solaroz".</p> <p>Some of the TEM survey lines undertaken across the Solaroz Concessions (also identified) are also shown in Figure 6 of the Company's ASX announcement dated 16 November 2022 entitled "Drilling Completed at Maiden Drillhole at Solaroz Lithium Brine Project".</p> <p>Two passive seismic surveys have been carried out – an initial survey consisting of lines in different orientations through the Solaroz Concessions, followed by a more detailed grid programme, with ~1,242 stations measured.</p> <p>The results of the two passive seismic programmes have been interpreted and referenced against the TEM survey data, to develop the best possible geophysical interpretation. This data has incorporated the initial results of the diamond core drilling programme to develop the geological model for the Project and the resource model for the mineral resource estimate.</p> <p>The (field and assay) results of packer sampling and geophysical hole logging at the first drillhole (SOZDD001, located on the Mario Angel concession) at Solaroz has also been previously</p>

Criteria	Explanation	Comments
		<p>announced – refer to the Company’s ASX announcement dated 10 March 2023 entitled “Positive Specific Yields and Significant Averaged Lithium Concentrations in SOZDD001 at Solaroz Lithium Brine Project”.</p> <p>The (field) results of initial packer sampling at the second drillhole (SOZDD002, located on the Chico V concession) at Solaroz has also been previously announced – refer to the Company’s ASX announcement dated 31 January 2023 entitled “Drilling Continues to Encounter Significant Intersections of Highly Conductive Brines at Solaroz Lithium Project”.</p> <p>The (field and assay) results of packer sampling and geophysical hole logging at the third drillhole (SOZDD003, located on the Chico I concession) at Solaroz has also been previously announced – refer to the Company’s ASX announcement dated 14 March 2023 entitled “Further Significant Lithium Discovery Extends Mineralisation at Solaroz Lithium Brine Project”.</p> <p>The initial (field and assay) results of packer sampling at the fourth drillhole (SOZDD004, located on the Chico I concession) and fifth drillhole (SOZDD005, on the Chico VI concession) have also been previously reported – refer to the Company’s ASX Announcement dated 15 May 2023 entitled “Further Assays Confirm Significant Lithium Brine Concentrations Across Massive Intersections at Solaroz”.</p>
Further work	<ul style="list-style-type: none"> <li>• <i>The nature and scale of planned further work (e.g. tests for lateral extensions or depth extensions or large-scale step-out drilling).</i></li> <li>• <i>Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, providing this information is not commercially sensitive.</i></li> </ul>	<p>The Company is undertaking a major exploration programme on the Solaroz Concessions comprising comprehensive interpretation and modelling of results from geophysical surveys (passive seismic and TEM surveys) and a significant (diamond with rotary precollars) drilling programme (initially 10 holes, ~5,000m), aimed at defining lithium bearing brines of economic interest, obtaining information related to the hydrogeological and geochemical characteristics of the brine rich aquifers (including data related to basic physical parameters of the different hydrogeological units) that comprises the Olaroz Salar underneath the Solaroz Concessions and delineating the maiden JORC Lithium Mineral Resource the subject of the mineral resource estimate in this Announcement.</p> <p>7 holes have been drilled to date - SOZDD001 (on the Mario Angel concession), SOZDD002 (on the Chico V concession), SOZDD003 (on the Chico I concession), SOZDD004 (on the Chico I concession), SOZDD005 (on the Chico VI concession), SOZDD006 (on the Chico VI concession, pending hole completion) and SOZDD001 (on the Payo 1 concession, pending hole completion).</p> <p>Additional holes are planned in the Central Block (Chico I, V and VI, Payo 2 South and Silvia Irene concessions), to improve the confidence in correlation of lithology, porosity and brine concentration between holes in the Central Block. Drilling will be undertaken to evaluate the Northern Block (Payo 1 and Payo 2 North concessions). The Company expects that the current JORC Inferred Mineral Resource (of LCE) will be upgraded as a consequence of on-going additional drilling on the Solaroz Concessions.</p> <p>Large diameter wells will be drilled and installed on relevant areas for pump testing. Hydrological studies will be undertaken, to support groundwater modelling to define lithium brine extraction rates.</p> <p>Process test work (which is equivalent to metallurgical test work) will be undertaken on relevant lithium brine samples.</p> <p>The Company is finalising a Scoping Study (being prepared by Hatch) for the production of battery grade lithium carbonate</p>



Criteria	Explanation	Comments
		<p>from the lithium rich brines at Solaroz, via both traditional pond evaporation and direct lithium extraction (DLE) technology).</p> <p>The Company will be undertaking an assessment of relevant mine economic criteria to assist in developing a pathway to the completion of feasibility study(s) for the development of the Project into production.</p>

**Summary of Sampling and Testing**

- A ‘pre-collar’ is isolated at the top of each hole, to separate the fresh/brackish water and prevent dilution with the sampling of the brines underneath; the depth of this pre-collar varies from hole to hole.
- Sampling of encountered brines are conducted by the use of single packers (generally descending the hole), double packers (generally ascending the hole, as check samples) and or airlift (pumping), depending on the condition of the drill hole. Sampling may not be contiguous across the hole depth range, due to the prevailing sampling conditions.
- Testing of brines for conductivity, flow rates and density are undertaken in the field, with testing of the chemical composition (eg. Lithium, Potassium, Magnesium concentrations) of brines being undertaken at a local laboratory in Argentina.
- Core samples are collected for brine extraction and chemical analysis and specific yield and porosity testwork at a US-based laboratory.
- Geophysical hole logging is undertaken to provide measurements including total porosity and specific yield (which relates to the amount of brine that can ultimately be extracted), conductivity and spectral gamma.
- The assay results (from brine sampling) are reviewed in conjunction with the geophysical hole logging data (and core sampling results, where applicable) to calculate average lithium and magnesium concentrations across relevant (upper and lower) aquifers with respect to each hole.