ASX ANNOUNCEMENT

Wednesday, 21 February 2024

Lanshen Resin (DLE) Testwork Recovers 92% of Lithium from Solaroz Brine

SUMMARY

- Laboratory testwork programme with Lanshen's propriety adsorbent and DLE 'carousel' achieves resin recovery of 92% lithium from Solaroz brine.
- The laboratory testwork programme is currently focussing on final impurity removal and production of concentrated high purity lithium chloride and lithium carbonate samples.
- Lanshen Pilot Plant testwork programme in Jujuy, Argentina to follow the completion of the laboratory testwork.
- Pilot Plant testwork will provide the detailed engineering design criteria for Lanshen to finalise design, cost and performance parameters for the proposed 3,000tpa LCE Demonstration Plant to process the Solaroz lithium brines.
- Whilst conventional pond evaporation remains the go-forward base development case for Solaroz, the high recoveries achieved from Lanshen's testwork highlights the use of DLE as a potentially alternative or complimentary development pathway for Solaroz.

Lithium Energy Limited (ASX:LEL) (**Lithium Energy** or **Company**) is pleased to provide an update on the progress of the 10,000 litre large-scale laboratory testwork being under taken by Xi'an Lanshen New Material Technology Co. Ltd (**Lanshen**) in their Santiago facility, Chile[1]. This testwork programme is an important step in the development process for Lanshen to finalise the design of a demonstration Direct Lithium Extraction (**DLE**) plant capable of producing up to 3,000 tonnes per annum of battery grade lithium carbonate (**Plant**) at the Company's Solaroz Lithium Brine Project in Argentina (**Solaroz**).[2] Solaroz is located next to Arcadium's[3] Olaroz Lithium Facility in the Salar de Olaroz basin (the **Olaroz Salar**) in the heart of South America's world renowned 'Lithium Triangle' (refer Figure 3).

Lithium Energy's Scoping Study[4] confirmed conventional pond evaporation remains the go-forward base development case for Solaroz, with pond evaporation laboratory testwork recently undertaken by Norlab in Argentina successfully producing 99.5% battery grade lithium carbonate from Solaroz brine[5]. However, the potential to achieve significantly higher recoveries of lithium using Lanshen's proprietary DLE process (a lithium recovery of 56% from conventional pond evaporation was calculated in the Scoping Study) highlights the potential attractiveness of the Lanshen funded DLE Plant project as presenting alternative or complimentary potential production pathways for Solaroz.

1 Refer LEL ASX Announcement dated 4 December 2023: 10,000 Lithium Brine Sample from Solaroz Sent to Lanshen for DLE Plant Design and Specification and Test Works

2 Refer LEL ASX Announcement dated 20 June 2023: Agreement with Lanshen to Build and Fund a 3,000tpa Battery Grade Lithium Plant at Solaroz

3 Arcadium Lithium plc (ASX/NYSE:LTM/ALTM) is the merged entity of Allkem Limited (former ASX:AKE) and Livent Corporation (NYSE:LTHM)

4 Refer LEL ASX Announcement dated 31 October 2023: Scoping Study Highlights Solaroz Potential as a Large Scale, Long Life, High Margin Lithium Project

5 Refer LEL ASX Announcement dated 15 January 2024: Battery Grade Lithium Carbonate Successfully Produced from Solaroz Brine

Following these highly positive results, Lithium Energy is now proceeding with the next phase of the Lanshen laboratory testwork programme to produce battery grade lithium carbonate from the Lanshen DLE concentrated brine. This will be followed by a Pilot Plant testwork programme using a Lanshen containerised Pilot Plant recently delivered to Argentina. Lithium Energy is currently finalising plans to install the Pilot Plant in Jujuy, where it will operate with Solaroz brines over a 12 week period to finalise the design parameters for the proposed 3,000tpa LCE Plant.

Lithium Energy Chairman, William Johnson:

> *These results from the Lanshen testwork have exceeded our expectations and prove that the high quality of the Solaroz brine performs well both with traditional pond evaporation and with Lanshen propriety DLE adsorbent resin technology. These results have given the Company the confidence to continue with further testwork and plan for the commencement of a Lanshen Pilot Plant testwork programme, which will be the final step required by Lanshen to finalise the design, capex and performance parameters for the proposed Lanshen funded 3,000tpa demonstration plant at Solaroz.*

Lanshen Laboratory Testwork Programme

The key outcome from the Lanshen laboratory testwork programme has been the ability of the Lanshen propriety DLE adsorbent resin to **recover 92%** of the lithium contained in samples of brine taken from the Mario Angel concession at Solaroz (refer Figure 3), which significantly exceeds the 50 to 60% lithium recovery typically experienced with conventional pond evaporation.

The laboratory continuous DLE carousel (Figure 1) testwork simulated the "operational function" of the Lanshen production carousel (Figure 2) .

The next phase of the Lanshen laboratory testwork programme will test the Lanshen DLE technology based on iron-exchange (IX) resins for the removal of low quantities of impurity ions in the product stream. These include low levels of magnesium (Mg), calcium (Ca) and boron (B). The end product of this step will be a high purity lithium chloride solution which will be used to produce the battery grade lithium carbonate final product.

Figure 1: Lanshen Laboratory Scale Continuous Operation Carousel with Lithium Adsorbent

The Lanshen laboratory testwork programme were conducted on a 10,000 litre representative sample of brine sourced from Drillhole 1 – SOZDD001 located on the Mario Angel concession; collected at a depth of between 127 and 305 metres, with an assayed head grade of 463 mg/l lithium. The brine sample was transported by road to Lanshen's Laboratory Facility in Santiago, Chile.

About Lanshen

Xi'an Lanshen New Material Technology Co., Ltd (**Lanshen**) is a private company based in Xi'an, China with major shareholders including China Minmetals and Softbank Capital.

Lanshen's DLE 'one-step molecular recognition technology' for lithium extraction selectively extracts lithium directly from lithium-rich brines by using proprietary lithium adsorbent material. Lithium ions are then eluted (extracted) with fresh water and lithium is subsequently separated from magnesium, potassium, sodium, calcium, iron, silicon, boron and other deleterious elements. No chemicals are added in the lithium extraction process, which is considered relatively environmentally friendly compared to other DLE technologies. Lanshen currently has multiple operating industrial plants in China.

Figure 2: Lithium Adsorption Module of Lanshen Demonstration Plant, China

ABOUT SOLAROZ LITHIUM BRINE PROJECT (ARGENTINA) (90%)

Lithium Energy Limited (ASX:LEL) (**Lithium Energy** or the **Company**) recently announced the outstanding results of the Scoping Study (**Study**) for the Company's flagship Solaroz Lithium Brine Project in Argentina (**Solaroz** or **Project**), located next to Arcadium Lithium plc's (ASX:LTM)[1] (**Arcadium**) Olaroz Lithium Facility in the Salar de Olaroz basin (the **Olaroz Salar**) in the heart of South America's world renowned 'Lithium Triangle' (Figure 3).

The Study is supported by the recently upgraded Solaroz Mineral Resource Estimate (**MRE**) of **3.3Mt** Lithium Carbonate Equivalent (**LCE**) (refer Table 1).[6] Within the 3.3Mt LCE Total Mineral Resource, there is a **high-grade core of 1.3Mt of LCE** with an average concentration of **400 mg/l Lithium** (refer Table 2).

This high-grade core underpins the Study outcomes (with 20ktpa and 40ktpa LCE production) using conventional evaporation ponds processing.[7] The Study also indicated that direct-lithium extraction (**DLE**) can potentially provide better recoveries and a more cost-effective operation. The Company will continue with its assessment of DLE technology, including the advancement of a 3,000 tpa DLE demonstration plant in collaboration with Lanshen[8].

Solaroz is located on the Olaroz Salar adjacent to Arcadium's[1] Olaroz Lithium Facility, with FY22 production of 13ktpa and targeted ramp-up in production to 42.5ktpa LCE[9]. Also neighbouring the Project is the recently commissioned Lithium Argentina Corporation[10] (TSX:LAAC) (**Lithium Argentina**) Cauchari-Olaroz Facility, targeting an annual production capacity of 40ktpa LCE[11].

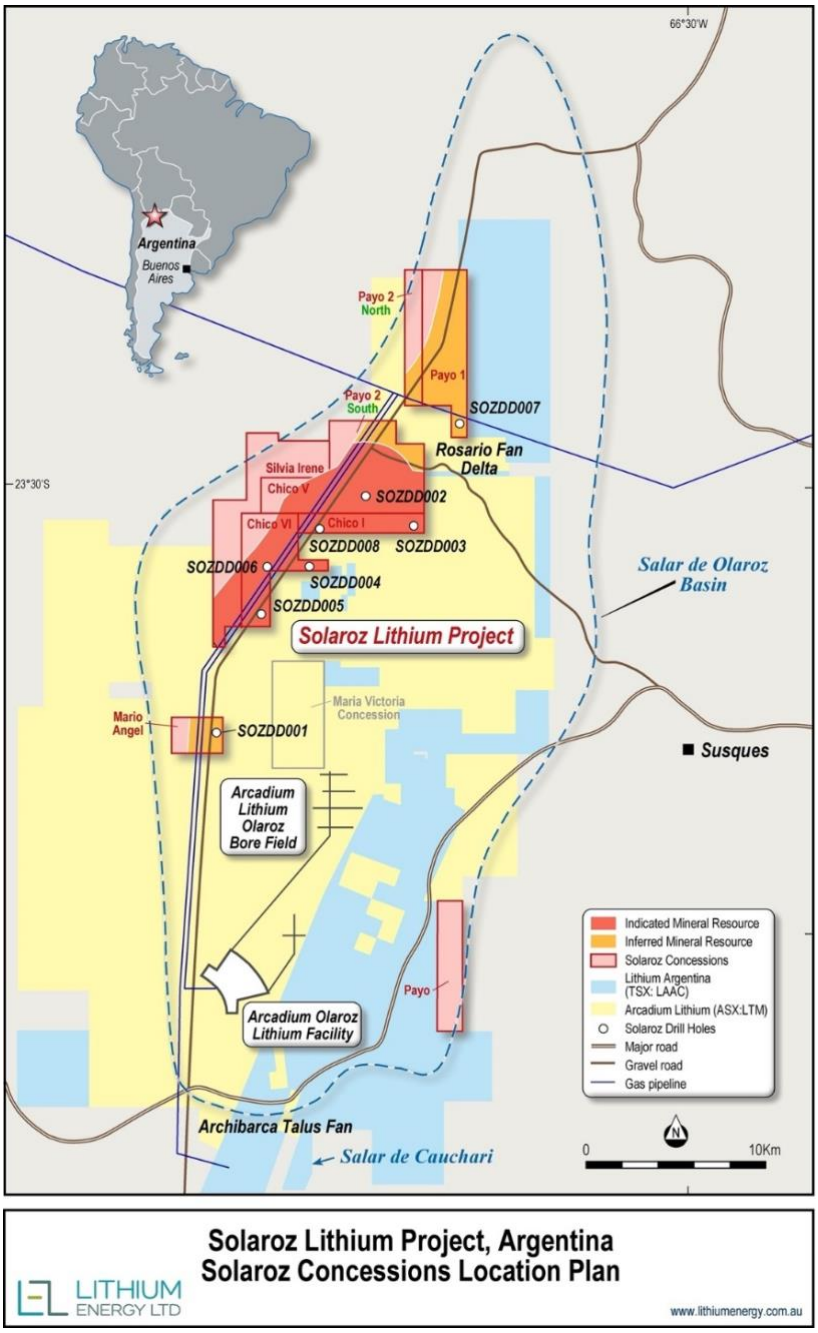

Figure 3: Mineral Resource Areas within Solaroz Concessions (and Drillhole Locations) in Olaroz Salar (Adjacent to Arcadium Lithium and Lithium Argentina Concessions)

6 Refer LEL Announcement dated 26 October 2023: Significant Solaroz Milestone Achieved with Upgrade to 2.4Mt LCE JORC Indicated Resource

7 Refer LEL ASX Announcement dated 31 October 2023: Scoping Study Highlights Solaroz Potential as a Large Scale, Long Life, High Margin Lithium Project - the Company confirms that all material assumptions underpinning the production targets and forecast financial information derived from the production targets in this announcement continue to apply and have not materially change

8 Refer to LEL ASX Announcement 20 June 2023: Agreement with Lanshen to Build and Fund a 3,000tpa Battery Grade Lithium Plant at Solaroz

9 Source: Arcadium ASX announcements

10 Lithium Argentina was separated, under a reorganisation, from Lithium Americas Corporation (TSX:LAC), in October 2023

11 Source: Lithium Argentina public releases

Solaroz Mineral Resource Estimates

The initial maiden JORC Mineral Resource for Solaroz (defined in June 2023[12]) was recently upgraded in October 2023[13] to:

- **Total Mineral Resource of 3.3Mt LCE** (at a zero Li mg/l cut-off grade), comprising (refer Table 1):
  - **Indicated Mineral Resource of 2.36Mt LCE**; and
  - **Inferred Mineral Resource of 0.9Mt LCE**.
- Within the 3.3Mt LCE Total Mineral Resource, there is a **high-grade core of 1.3Mt of LCE** with an average concentration of **400 mg/l Lithium** (at a 320 mg/l Li cut-off grade) (refer Table 2).

Table 1 : Upgraded Total JORC Indicated and Inferred Mineral Resource

Mineral Resource Category	Lithology Units	Sediment Volume (million m³)	Specific Yield %	Brine volume	Lithium (Li)		LCE Tonnes
				million m³	mg/l	Tonnes	
Indicated Mineral Resource	A (Upper Aquifer)	7,200	10.0%	720	245	176,600	940,000
	B (Halite Salt Unit)	1,731	4.0%	69	340	23,600	125,000
	C (Lower Aquifer)	4,671	6.5%	304	363	110,000	590,000
	D (Tertiary Bedrock)	5,651	5.8%	328	406	133,000	705,000
	Total	**19,253**	**7.4%**	**1,421**	**312**	**443,200**	**2,360,000**
Inferred Mineral Resource	A	3,589	10.0%	359	245	88,000	470,000
	B	3,060	4.0%	122	340	42,000	220,000
	C	1,058	6.5%	69	362	25,000	130,000
	D	634	5.8%	37	405	15,000	80,000
	Total	**8,340**	**7.0%**	**587**	**289**	**170,000**	**900,000**
TOTAL INDICATED & INFERRED MINERAL RESOURCE			**7.3%**		**305**		**3,260,000**

Notes:

(a) The Indicated Mineral Resource Estimate encompasses the Chico I, Chico V, Chico VI, Payo 2 South and Silvia Irene (Central Block) concessions

(b) The Inferred Mineral Resource Estimate encompasses the Mario Angel, Payo 2 South and Silvia Irene, Payo 1 and Payo 2 North concessions, and is in addition to the Indicated Mineral Resource Estimate

(c) Lithium (Li) is converted to lithium carbonate (Li_2CO_3) equivalent (LCE) using a conversion factor of 5.323

(d) Totals may differ due to rounding

(e) Reported at a zero Lithium mg/l cut-off grade

(f) Total Specific Yields are weighted averages

Table 2 : Upgraded High-Grade Core within Total JORC Indicated and Inferred Mineral Resource

Mineral Resource Category	Lithology Units	Sediment Volume (million m³)	Specific Yield %	Brine volume	Lithium (Li)		LCE Tonnes
				million m³	mg/l	Tonnes	
Indicated Mineral Resource	A	878	10.0%	88	349	30,000	165,000
	B	1,289	4.0%	52	357	18,000	100,000
	C	3,288	5.6%	183	401	75,000	390,000
	D	4,881	4.8%	235	425	100,000	530,000
	Total	**10,337**	**5.2%**	**557**	**400**	**223,000**	**1,185,000**
Inferred Mineral Resource	B	92	4.0%	4	418	1,500	8,000
	C	436	5.7%	25	401	10,000	53,000
	D	109	4.9%	5	405	2,000	12,000
	Total	**637**	**5.3%**	**34**	**403**	**13,500**	**73,000**
TOTAL INDICATED & INFERRED MINERAL RESOURCE (HIGH-GRADE CORE)			**5.2%**		**400**		**1,258,000**

12 Refer LEL ASX Announcement dated 29 June 2023: Significant Maiden JORC Lithium Resource of 3.3Mt LCE at Solaroz Project in Argentina

13 Refer LEL ASX Announcement dated 26 October 2023: Significant Solaroz Milestone Achieved with Upgrade to 2.4Mt LCE JORC Indicated Resource

Notes:

(a) The high-grade core comprises JORC Indicated and Inferred Mineral Resources estimated within the mineralisation envelope of (not in addition to) the Mineral Resource Estimates outlined in Table 1

(b) The Indicated Mineral Resource encompasses the Chico I, Chico V, Chico VI, Payo 2 South and Silvia Irene (Central Block) concessions

(c) The inferred Mineral Resource encompasses the southern Mario Angel (Units B and C) and Payo 1 and Payo 2 North (Northern Block) (Unit D) concessions, and is in addition to the Indicated Mineral Resource Estimate

(d) Reported at a 320 mg/l Lithium cut-off grade

(e) Refer Notes (c), (d) and (f) of Table 1

Further details are in the Company's ASX Announcement dated 26 October 2023 entitled "Significant Solaroz Milestone Achieved with Upgrade to 2.4Mt LCE JORC Indicated Resource".

AUTHORISED FOR RELEASE - FOR FURTHER INFORMATION:

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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 a JORC Indicated and 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 Arcadium Lithium plc (ASX:LTM) and Lithium Argentina Corporation (TSX:LAAC). Lithium Energy has completed a Scoping Study on Solaroz and is investigating the development of a 20/40ktpa lithium carbonate equivalent (LCE) production facility using conventional evaporation ponds; the Company is also evaluating direct-lithium extraction (DLE) technologies. 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 investigating the proposed development of a vertically integrated battery anode material manufacturing facility in Queensland.

JORC CODE COMPETENT PERSON'S STATEMENT

(1) The information in this document that relates to Exploration Results (assays of brine samples taken from drillhole SOZDD001) in relation to the Solaroz Lithium Brine Project is 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 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 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 estimates (dated October 2023) in relation to the Solaroz Lithium Brine Project is extracted from the following ASX market announcement made by Lithium Energy Limited dated:

- 26 October 2023 entitled "Significant Solaroz Milestone Achieved with Upgrade to 2.4Mt LCE JORC Indicated Resource"

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 the 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:

- 15 January 2024 entitled “Battery Grade Lithium Carbonate Successfully Produced from Solaroz Brine”
- 10 March 2023 entitled "Positive Specific Yields and Significant Averaged Lithium Concentrations in SOZDD001 at Solaroz Lithium Brine Project"
- 16 November 2022: Drilling Completed at Maiden Drillhole at Solaroz Lithium Brine Project
- 1 November 2022: Further Significant Lithium Concentrations Encountered in Maiden Drillhole at Solaroz Lithium Brine Project
- 19 October 2022: Major Lithium Discovery Confirmed In First Drillhole of Maiden Programme at the Solaroz Lithium Brine Project
- 5 October 2022: Significant Intersection of Highly Conductive Brines in Maiden Drillhole at Solaroz Lithium Brine Project

The information in the original announcements are 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

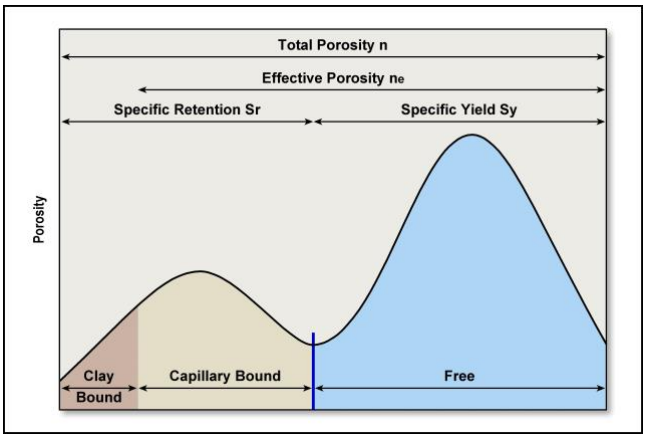
This document contains “forward-looking statements” and “forward-looking information”, including statements and forecasts which include without limitation, expectations regarding future performance, costs, production levels or rates, mineral reserves and resources, the financial position of Lithium Energy, 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	• *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.* • *Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used* • *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.*	**Drill Samples** 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. The pre-collar was then cemented in and HQ Core drilled. 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. HQ Drill core sampling was undertaken to obtain representative samples of the stratigraphy and sediments that host brine. Water/brine samples were taken from target intervals, using single packer sampling descending and double packers as check samples ascending the holes (depending on the condition of the drillhole). Packer samples isolate a volume of the stratigraphy around the hole, to collect representative brine samples from that interval. 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. 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. Samples were taken as descending packers with a spacing of ~18m (later ~24m) between samples descending in the holes. Conductivity and Density measurements are taken with a field portable High Range Hanna multi parameter meter and floating densiometers. Testing of the chemical composition (including Lithium, Potassium, Magnesium concentrations) of brines are undertaken at a local laboratory in Argentina. **Sampling for Testwork** Relevant results of Lithium concentration assayed from brine samples taken in September 2023 from a composite sample collected at 127 - 305m depth interval in drillhole SOZDD001 (on the Mario Angel concession) are presented in Table 4.
Drilling techniques	• *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.).*	The pre-collars from surface were drilled using the Tricone drilling method; chips were logged as collected, to the pre-collar depth, which was deeper in the holes further north on the Olaroz Salar. The pre-collar was then cemented in (isolated) and HQ Core drilled. 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. HQ Drill core sampling was undertaken to obtain representative samples of the stratigraphy and sediments that host brine.
Drill sample recovery	• *Method of recording and assessing core and chip sample recoveries and results assessed* • *Measurements taken to*	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. No relationship exists between core recovery and lithium concentration, as

Criteria	Explanation	Comments
	maximise sample recovery and ensure representative nature of the samples. • *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.*	the lithium is present in brine. Brine is extracted during sampling and the sediments are not the target for lithium extraction (I.e. the sediments are not mined, milled or processed), the lithium is extracted directly from the brine.
Logging	• *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.* • *Whether logging is qualitative or quantitative in nature. Core (or costean, channel etc.) photography.* • *The total length and percentage of the relevant intersections logged*	**Drilling** Lithium Energy has geologists at each drillhole site logging the drill core 24/7. 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. 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. Downhole geophysical logging was undertaken by Zelandez, a Salta (Argentina) based specialist Borehole Geophysical Logging company, with a number of logging probes, including, Caliper, Conductivity, Resistivity, Borehole Nuclear Magnetic Resonance (NMR or BMR), Spectral Gamma. The BMR probe in particular provides information of Total Porosity, Specific Retention and Specific Yield. The total porosity of a rock formation represents the total pore space. Although Total Porosity has two principal components, Specific Retention and Specific Yield: (a) Specific Retention (Sr), represents the portion of the Total Porosity that is retained by clay and capillary bound sections of a sediment. (b) Specific Yield (Sy) is the amount of water/brine that is actually available within the sediment for groundwater pumping.  *Figure 4: Specific Retention and Specific Yield, as part of Total Porosity (Source: Zealandez)* Specific Yield is a key parameter when calculating a Lithium Brine Resource – the Company has determined Specific Yield from Geophysical Logging with a down hole BMR probe. 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. This sampling is undertaken as a check on the BMR sampling, with a comparison of variance and averages undertaken.
Sub-sampling techniques	• *If core, whether cut or sawn and whether quarter, half or all core*	**Drill Samples**

Criteria	Explanation	Comments
and sample preparation	*taken.* • *If non-core, whether riffles, tube sampled, rotary split, etc. and whether sampled wet or dry.* • *For all sample types, quality and appropriateness of the sample preparation technique.* • *Quality control procedures adopted for all sub- sampling stages to maximise representivity of samples.* • *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.* • *Whether sample sizes are appropriate to the grain size of the material being sampled.*	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. Packer sampling is considered the most appropriate way for collecting brine samples. All methods have advantages and disadvantages. 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. Brine sample sizes are considered appropriate to be representative of the formation brine. 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. Porosity can vary significantly in clastic salt lake sequences over less than 1 metre and for this reason downhole BMR logging is undertaken.
Quality of assay data and laboratory tests	• *The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total.* • *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.* • *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.*	**Drill Samples** 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 will be analysed in a secondary porosity laboratory, as a check on the GSA results. Results are plotted versus BMR data on downhole plots, to compare results from the two methods. 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. Relevant results of Lithium concentration assayed from brine samples taken at various intervals in drillhole SOZDD003 are presented in Table 4. 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). 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.
Verification of sampling and assaying	• *The verification of significant intersections by either independent or alternative company personnel.* • *The use of twinned holes* • *Documentation of primary data, data entry procedures, data verification, data storage (physically and electronic) protocols.* • *Discuss any adjustment to assay data.*	**Drill Samples** Field duplicates, standards and blanks are used to monitor potential contamination of samples and the repeatability of analyses. 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. Samples were accompanied by chain of custody documentation. Assay results were imported directly from laboratory spreadsheet files to the Project database.
Location of data points	• *Accuracy and quality of surveys*	**Drilling**

Criteria	Explanation	Comments
	used to locate drill holes (collar and down-hole surveys), trenches, mine workings and other locations used in Mineral Resources estimation. • *Specification of the grid system used.* • *Quality and adequacy of topographic control.*	Locations are positioned using modern Garmin handheld GPS units with an accuracy of +/- 5m. The grid system used is: POSGAR 94, Argentina Zone 3. Topographic control was obtained by handheld GPS units and the topography is mostly flat with very little relief.
Data spacing and distribution	• *Data spacing for reporting of Exploration Results.* • *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.* • *Whether sample compositing has been applied.*	**Drilling** Water/brine samples were collected within isolated sections of the hole based upon the results of geological logging. 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. 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. Downhole BMR porosity logging was undertaken, with data collected approximately every ~2-5cm, providing very extensive characterisation of the sediments and variation. BMR data was composited for resource estimation. Samples were not composited for reporting. **Sampling for Testwork** Samples for the Lanshen DLE test work were taken from the SOZDD001 drilhole (located on the Mario Angel concession) by mechanical pumping of brine from 3-inch PVC that was previously inserted post drilling into SOZDD001. The PVC is unperforated from 0 - 127m depth, with a screened perforated section at the following intervals below 127m: • 127 - 162m • 175 - 187m • 197 - 226m • 277 - 305m By pumping the brine from within the PVC, the brine is replenished by an influx of brine from the perforated PVC intervals. The brine is continually pumped (2-3 times the brine volume within the PVC) and tested with onsite equipment until a steady state is achieved in conductivity/density. Thereafter, the brine was collected in one cubic metre containers and transported to Lanshen's Laboratory Facility in Santiago, Chile.
Orientation of data in relation to geological structure	• *Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type.* • *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.*	**Drilling** The brine concentrations being explored generally occur as sub-horizontal layers and lenses hosted by 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.

Criteria	Explanation	Comments
Sample security	• *The measures taken to ensure sample security.*	**Drilling** Data was recorded and processed by trusted employees and contractors and overseen by senior management, ensuring the data was not manipulated or altered. Samples are transported from the drill sites to secure storage at the camp on a daily basis.
Audits or reviews	• *The results of and audits or reviews of sampling techniques and data.*	**Drilling** No audits or reviews have been conducted to date. The initial resource definition drilling programme has been completed. The Company's independent Competent Person (in respect of the 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.

Section 2 Reporting of Exploration Results

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

Criteria	Explanation	Comments
Mineral tenement and land tenure status	• *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.* • *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.*	The Solaroz Lithium Brine Project comprises 8 concessions totalling approximately 12,000 hectares (**Solaroz Concessions** or **Project**) located in the Jujuy Province in northern Argentina (refer Figure 3): (1) Mario Angel – File N°1707-S-2011 (542.92ha) (2) Payo – File N°1514-M-2010 (987.62ha) (3) Payo 1 – File N°1516-M-2010 (1,973.24ha) (4) Payo 2 – File N°1515-M-2010 (2,192.63ha; comprising South block (1,435.13ha) and North block (757.5)) (5) Chico I – File N°1229-M-2009 (835.24ha) (6) Chico V – File N°1312-M-2009 (1,800ha) (7) Chico VI – File N°1313-M-2009 (1,400.18ha) (8) Silvia Irene, File N°1706-S-2011 (2,348.13ha) 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".
Exploration done by other parties	• *Acknowledgement and appraisal of exploration by other parties.*	Extensive open file drilling, geochemistry, geophysical and development work from exploration to development, and an operating mine have been carried out by Arcadium Lithium plc (ASX:LTM) (formerly Arcadium Limited and Orocobre Limited) (**Arcadium** or **Arcadium** or **Orocobre**) and Lithium Argentina Corporation (TSX:LAAC) (formerly part of Lithium Americas Corporation (TSX:LAC)) (**Lithium Argentina**). The Company has reviewed the relevant open file published documents and images relating to the Salar de Olaroz (**Olaroz Salar**) and from this review made its interpretations relating to the Company's Solaroz Concessions. The published data upon which the geological model for the Company's Solaroz Project has been developed includes the following works: • 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. • Orocobre Limited ASX/TSX Announcement dated 23 October 2014 entitled "Olaroz Project - Large Exploration Target Defined Beneath Current Resource".

Criteria	Explanation	Comments
		• Arcadium Limited ASX/TSX Announcement dated 27 March 2023, "Olaroz resource increases 27% to 20.7 million tonnes LCE". • Reidel, F., Technical Report on Cauchari JV Project – Updated Mineral Resource Estimate, prepared for Advantage Lithium Corporation, 19 April 2019. • Orocobre Limited ASX/TSX Announcement dated 10 January 2019 entitled "Cauchari Drilling Update – Phase III Drilling Complete". • Burga, E. et al, Technical Report - Updated Feasibility Study and Mineral Reserve Estimation to support 40ktpa Lithium Carbonate Production at the Cauchari-Olaroz Salars, Jujuy Province, Argentina, prepared for Lithium Argentina Corporation, 30 September 2020. • Salfity Geological Consultants Map for Salar de Olaroz
Geology	• *Deposit type, geological settings and style of mineralisation.*	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. 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. At depth a thick highly porous sand aquifer has been intersected in both the Salar de Cauchari (by Lithium Argentina) 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. 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).

Drill hole Information	• *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:*
	  • *Easting and northing of the drill hole collar*
	  • *Elevation or RL (Reduced level-elevation above sea level in metres) and the drill hole collar*
	  • *Dip and azimuth of the hole*
		Details of the collar location, azimuth, depth for Drillhole ID SOZDD001 is reported in Table 3.
		All holes are drilled vertically through the unconsolidated clastic sediments and halite (salt) unit.

Criteria	Explanation	Comments
	• *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.*	
Data aggregation methods	• *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.* • *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.* • *The assumptions used for any reporting of metal equivalent values should be clearly stated.*	Where the Company has undertaken data aggregation: • Within a given defined aquifer, the Company has aggregated the assays based on a numerical average of the samples. • Total Porosity and Specific Yield have been averaged over the aquifers' interpreted width, with the underlying Total Porosity and Specific Yield being collected at ~2cm intervals from down hole BMR geophysical logging. Mg/Li Ratio's have been reported which is a standard representation. Elemental lithium has been converted to Lithium Carbonate Equivalent (**LCE**) using a conversion factor of 5.323 to convert Li to Li_2CO_3); reporting lithium values in LCE units is a standard industry practice.
Relationship between mineralisation widths and intercept lengths	• *These relationships are particularly important in the reporting of Exploration Results.* • *If the geometry of the mineralisation with respect to the drill hole angle is known, its nature should be reported.* • *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')*	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.
Diagrams	• *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 locations and appropriate sectional views.*	Figure 3 shows the location of the Solaroz Concessions (and relevant infrastructure) adjacent to the concessions held by Arcadium and Lithium Argentina on the Olaroz Salar, the location of drill holes SOZDD001 to SOZDD008 and the Indicated and Inferred Mineral Resource areas within the Solaroz Concessions. Downhole Geophysical logging of holes was undertaken with a number of logging probes, including, Caliper, Conductivity, Resistivity, BMR, Spectral Gamma. The BMR probe in particular provides information of Total Porosity, Retained Porosity (specific retention) and Specific Yield.
Balanced reporting	• *Where comprehensive reporting of all Exploration Results is not practicable,*	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

Criteria	Explanation	Comments
	representative reporting of both low and high grades and/or widths should be practiced to avoid misleading reporting of Exploration Results.	results but has no reason to doubt the balanced reporting of the various technical open file reports. The results presented and used for the mineral resource estimate are from the initial exploration drilling and geophysics programme on the Solaroz Concessions.
Other substantive exploration data	• *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.*	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 bedrock 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 bedrock. The Company has undertaken its own geophysics programme across all the Solaroz Concessions, comprising: • Passive seismic surveys, to determine the depth of the underlying bedrock (i.e. the theoretical limit of potential lithium mineralisation) underneath the concessions; and • Transient Electromagnetic geophysics (**TEM**), to identify the location and thickness of potential lithium-hosting conductive brines underneath the Solaroz Concessions. 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". 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". Passive seismic surveys have been carried out consisting of lines in different orientations through the Solaroz Concessions. 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. 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 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". 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". 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

Criteria	Explanation	Comments
		"Further Significant Lithium Discovery Extends Mineralisation at Solaroz Lithium Brine Project". The (field and assay) results of packer sampling at the fourth drillhole (SOZDD004, located on the Chico I concession) have 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" and 29 August 2023 entitled "Lithium Mineralisation Encountered in Northern Solaroz Concession". The (field and assay) results of packer sampling and geophysical hole logging at the fifth drillhole (SOZDD005, on the Chico VI concession) have been previously reported – refer to the Company's ASX Announcements dated 31 July 2023 entitled "Quarterly Activities and Cash Flow Reports – 30 June 2023" and 15 May 2023 entitled "Further Assays Confirm Significant Lithium Brine Concentrations Across Massive Intersections at Solaroz". The (field and assay) results of airlift and packer sampling and geophysical hole logging at the sixth drillhole (SOZDD006, on the Chico VI concession) have been previously reported – refer to the Company's ASX Announcements dated 31 July 2023 entitled "Quarterly Activities and Cash Flow Reports – 30 June 2023", 27 July 2023 entitled "Highest Lithium Concentrations Encountered at Solaroz Lithium Project in Hole 6" and 29 August 2023 entitled "Lithium Mineralisation Encountered in Northern Solaroz Concession". The (field and assay) results of airlift and packer sampling at the seventh drillhole (SOZDD007, on the Payo 1 concession) have been previously reported – refer to the Company's ASX Announcements dated 29 August 2023 entitled "Lithium Mineralisation Encountered in Northern Solaroz Concession" and 20 September 2023 entitled "Drillhole 7 Yields Highest Grade Lithium to Date in Upper Aquifer". The (field and assay) results of airlift sampling at the eighth drillhole (SOZDD008, on the Chico I concession) have been previously reported – refer to the Company's ASX Announcements dated 20 September 2023 entitled "Drillhole 7 Yields Highest Grade Lithium to Date in Upper Aquifer" and 26 October 2023 entitled "Significant Solaroz Milestone Achieved with Upgrade to 2.4Mt LCE JORC Indicated Resource". The Company has completed a Scoping Study for the production of battery grade lithium carbonate from the lithium rich brines at Solaroz, via both traditional pond evaporation and direct lithium extraction (DLE) technology) - refer to the Company's ASX Announcement dated 31 October 2023: Scoping Study Highlights Solaroz Potential as a Large Scale, Long Life, High Margin Lithium Project.
Further work	• *The nature and scale of planned further work (e.g. tests for lateral extensions or depth extensions or large-scale step- out drilling).* • *Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, providing this information is not commercially sensitive.*	The Company has completed a major exploration programme on the Solaroz Concessions comprising comprehensive geophysical surveys (passive seismic and TEM surveys) and a significant (diamond with rotary precollars) drilling programme (comprising 8 holes totalling ~5,000m), which has led to the discovery of lithium bearing brines of economic interest, compilation of information on 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 the delineation of a maiden and upgraded JORC Indicated and Inferred Lithium Mineral Resource. 8 holes have been drilled in this initial drilling programme - 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), SOZDD007 (on the Payo 1

Criteria	Explanation	Comments
		concession) and SOZDD008 (on the Chico I concession). Additional (including in-fill) 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 is planned to further evaluate the Northern Block (Payo 1 and Payo 2 North concessions). The Company expects that the current JORC Indicated and Inferred Lithium Mineral Resource will be further upgraded as a consequence of on-going additional drilling on the Solaroz Concessions. 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. Process test work (which is equivalent to metallurgical test work) will be undertaken on relevant lithium brine samples. 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.

Section 3 Estimation and Reporting of Mineral Resources

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

Criteria	Explanation	Comments
Database integrity	• *Measures taken to ensure that data has not been corrupted by, for example, transcription or keying errors, between its initial collection and its use for Mineral Resource estimation purposes.* • *Data validation procedures used.*	Data was transferred directly from laboratory spreadsheets to the database. Data was checked for transcription errors once in the database, to ensure coordinates, assay values and lithological codes are correct. Data was plotted to check the spatial location and relationship to adjoining sample points. Duplicates and standards have been used throughout the assay process. Brine assays and porosity test work have been analysed and compared with other publicly available information for reasonableness. Comparisons of original and current datasets were made to ensure no lack of integrity.
Site visits	• *Comment on any site visits undertaken by the Competent Person and the outcome of those visits.* • *If no site visits have been undertaken indicate why this is the case.*	The Competent Person (in respect of the Mineral Resource estimate) and his assistant has visited the site multiple times since the start of the drilling and sampling programme in 2022. Some improvements to procedures were made during visits by the Competent Person, improving the consistency of geological logging and sample collection.
Geological interpretation	• *Confidence in (or conversely, the uncertainty of) the geological interpretation of the mineral deposit.* • *Nature of the data used and of any assumptions made.* • *The effect, if any, of alternative interpretations on Mineral Resource estimation.* • *The use of geology in guiding and controlling Mineral Resource estimation.* • *The factors affecting*	There is a reasonable confidence in the geological model for the Project, with eight holes completed to date, along with comprehensive geophysical surveys. There are relatively distinct geological units in essentially flat lying, relatively uniform, clastic sediments, with the halite unit as a distinctive marker in the middle of the sequence. This is consistent with observations from the Arcadium and Lithium Argentina lithium brine projects further to the south on the Olaroz Salar/Salar de Cauchari. Geophysics and drilling data has been used to define lithological surfaces, in particular the top of the halite unite and the bedrock. Any alternative interpretations in the area of drilling are restricted to smaller scale variations in sedimentology, related to changes in grain size and fine material in units. There is greater uncertainty further to

Criteria	Explanation	Comments
	continuity both of grade and geology.	the west and north. However, the geophysics suggests the halite unit continues, suggesting the same stratigraphy is relevant. Geology is key for defining the resource estimate. A thicker or a thinner halite unit would have significant impact on the contained lithium tonnage, as the specific yield is lower in the halite unit. Changes in specific yield porosity were responsible for differences between the maiden Inferred Mineral Resource and the upgraded Indicated and Inferred Mineral Resource. The specific yield is significantly higher for the upper (Unit A) compared to the lower (Unit C and D) clastic units, which are more compact. As the porosity characteristics of the halite unit are distinct, the thickness of this unit in the Inferred Mineral Resource in the Northern Block has significant influence on the contained lithium tonnage. Sedimentary processes affect the continuity of geology, whereas the concentration of lithium and other elements in the brine is related to water inflows, evaporation and brine evolution in the salar and location relative to the salar, where brine was formed and concentrated.
Dimensions	• *The extent and variability of the Mineral Resource expressed as length (along strike or otherwise), plan width, and depth below surface to the upper and lower limits of the Mineral Resource*	The lateral extent of the Mineral Resource estimate has been defined by the boundary of the Solaroz Concessions and the extent of the brine, as indicated by the TEM geophysics. The brine mineralisation in the resource model covers an area of 46.18 km^2 (4,618 ha) for the Indicated Resource, in the Central Block. The Inferred Resource consists of 3.64 km^2 (364ha) in the southern Mario Angel concession, 4.13 km^2 (413 ha) in the North of the Central Block and 27.07 km^2 (2,707 ha) in the Northern Block. The combined total resource area is 73.25 km^2 (7,325 ha). The top of the geological model coincides with the topography obtained from the Also Palsar imagery. The original elevations were locally adjusted for each drill hole collar with the most accurate coordinates available. The top of the brine is based on interpretation of the geophysics and the intersections in the drill holes of brine, with a concentration of ~200 mS/cm or more. The depth to the top of the brine increases further from the salar, at higher elevations and because brine is further below ground surface further from the salar, where brine is formed. Such a deepening with greater depth from the salar is expected and observed in other salt lake basins. In hole SOZDD002, the brine concentration is low, as Unit A directly overlies bedrock and the deeper Units B, C and D, which have higher lithium concentrations, are not present. The base of the Mineral Resource is limited by the interpreted bedrock surface, which is based on the passive seismic survey and the intersections of the interpreted bedrock rocks in drill holes.
Estimation and modelling techniques	• *The nature and appropriateness of the estimation technique(s) applied and key assumptions, including treatment of extreme grade values, domaining, interpolation parameters and maximum distance of extrapolation from data points. If a computer assisted estimation method was chosen include a description of computer software and parameters used.* • *The availability of check estimates, previous estimates and/or mine production*	The Mineral Resource estimate for the Project was developed using Leapfrog Software and the Edge estimation package. The geological model is considered a reliable initial representation of the local lithology. Generation of histograms and box plots were conducted for the Exploratory Data Analysis for lithium. Regarding the interpolation parameters, it should be noted that the search radii are flattened ellipsoids with the shortest distance in the Z axis. No outlier restrictions were applied to the lithium concentration, as distributions of the different elements do not show anomalously high values. However, some anomalously low values, out of context with surrounding samples, were rejected, as they are considered to be diluted samples contaminated by drilling fluids. No grade cutting, or capping was applied to the Lithium. Lithium concentrations increase down hole, becoming progressively more concentrated in lithium beneath an upper brackish zone. The lithium concentration reaches a consistent concentration within and below the halite unit.

Criteria	Explanation	Comments
	records and whether the Mineral Resource estimate takes appropriate account of such data. • *The assumptions made regarding recovery of by-products.* • *Estimation of deleterious elements or other non-grade variables of economic significance (e.g. sulphur for acid mine drainage characterisation).* • *In the case of block model interpolation, the block size in relation to the average sample spacing and the search employed.* • *Any assumptions behind modelling of selective mining units.* • *Any assumptions about correlation between variables.* • *Description of how the geological interpretation was used to control the Resource estimates.* • *Discussion of basis for using or not using grade cutting or capping.* • *The process of validation, the checking process used, the comparison of model data to drill hole data, and use of reconciliation data if available.*	The BMR data was reviewed and values above 30% specific yield were cut, as these are high specific yield values. Similarly, values below 1% were cut. Results from the primary porosity laboratory (GSA) were compared with results from the down hole BMR logging. A simple volumetric check estimate was carried out using the volume of the geological units and representative values for porosity and lithium concentration. Potassium is the most economically significant element dissolved in the brine after lithium. Potassium can be produced using the evaporative process as for lithium. However, the final production of potassium requires independent processing from the lithium brine. The potassium recovery process is well understood and could be implemented in the Project. However, potassium production does not add significantly to the economics of the Project and hence is not considered. Interpolation of lithium for each block in mg/l used the Leapfrog Radial Basis Function (not kriging, which is used to estimate specific yield). The presence of brine is not necessarily controlled by the lithologies and lithium concentrations are independent of lithology. Geological units had hard boundaries for estimation of porosity. Deleterious elements in the brine consist of Mg, Ca, B and SO_4 in particular. The distribution of these elements was estimated along with lithium, as these elements are routinely analysed. Estimation of Mineral Resources used the average Specific Yield value for each geological unit, based on the drillhole data. The block size (200 x 200 x 10m) has been chosen for providing a workable number of the blocks inside the geological model, considering the number of drill holes and arial extent. No assumptions were made regarding selective mining units and selective mining is difficult to apply in brine deposits, where the brine flows in response to pumping. No assumptions were made about correlation between variables. Lithium was estimated independently of other elements. The geological interpretation was used to define each geological unit and the property limits were used to enclose the Mineral Resources. The lithium concentration is not necessarily related to a particular lithology. No grade capping or cutting was used, as grades do not show extreme outliers. However, assessment of the sampling process and results suggests that a number of samples were most likely contaminated by drilling fluid, resulting in anomalously low lithium concentrations. This has been noted on many other lithium projects. The relevant low outlier (off-trend) lithium values were not used for Mineral Resource estimation, given concerns about their validity. Validation was performed using a series of checks including comparison of univariate statistics for global estimation bias, visual inspection against samples on plans and sections and swath plots. Visual validation shows a good agreement between the samples and the estimates.
Moisture	• *Whether the tonnages are estimated on a dry basis or with natural moisture, and the method of determination of the moisture content.*	Moisture content of the cores was not measured (porosity and density measurements were made), but as brine will be extracted by pumping not mining, that is not relevant for the Mineral Resource estimation. Tonnages are estimated as metallic lithium dissolved in brine, which is converted to Lithium Carbonate Equivalent (LCE) by a factor of 5.323.
Cut-off parameters	• *The basis of the adopted cut-off grade(s) or quality*	No cut-off grade has been applied to the Mineral Resource, as it is not yet clear what processing method will be applied.

Criteria	Explanation	Comments
	parameters applied.	
Mining factors or assumptions	• *Assumptions made regarding possible mining methods, minimum mining dimensions and internal (or, if applicable, external) mining dilution. It is always necessary as part of the process of determining reasonable prospects for eventual economic extraction to consider potential mining methods, but the assumptions made regarding mining methods and parameters when estimating Mineral Resources may not always be rigorous. Where this is the case, this should be reported with an explanation of the basis of the mining assumptions made.*	The Mineral Resource has been quoted in terms of brine volume, concentration of dissolved elements, contained lithium and LCE. No mining or recovery factors have been applied (because the use of the specific yield (equivalent to drainable porosity) reflects the reasonable prospects for economic extraction with the proposed mining methodology). There are lithium brine operations that have been extracting and producing lithium products in Argentina and Chile for over 25 years. Dilution of brine concentrations is likely to occur over time and typically there are lithium losses in both the ponds and processing plant in conventional brine mining operations which are estimated as part of the delineation of an Ore Reserve. Potential dilution will be estimated in the groundwater model simulating brine extraction to define the Project's Ore Reserve. The conceptual mining method is recovering brine from beneath the gravels via a network of wells, the established practice on existing lithium brine projects. Detailed hydrologic studies of the Project area and basin will be undertaken as the Project develops further. This would support future groundwater modelling to define the Project's Ore Reserve and extraction rate.
Metallurgical factors or assumptions	• *The basis for assumptions or predictions regarding metallurgical amenability. It is always necessary as part of the process of determining reasonable prospects for eventual economic extraction to consider potential metallurgical methods, but the assumptions regarding metallurgical treatment processes and parameters made when reporting Mineral Resources may not always be rigorous. Where this is the case, this should be reported with an explanation of the basis of the metallurgical assumptions made.*	The preferred brine processing route has yet to be determined by test work to establish the optimum process. The characteristics of the brine are very similar to the public information on the Olaroz and Olaroz-Cauchari projects owned by Arcadium and Lithium Argentina respectively. Consequently, there is confidence conventional pond evaporation and processing is feasible. However, with recent developments in direct lithium extraction (DLE) technology and the 25-year experience of producer Livent Corporation (NYSE:LTHM) using one form of this, the possibilities of direct extraction are yet to be fully evaluated but are also a likely feasible means of producing saleable lithium end product. Process test work (which can be considered equivalent to metallurgical test work) is proposed to be carried out on the Project brine. The DLE extraction to be undertaken by Lanshen to produce lithium carbonate can be considered as a commercial scale pilot plant, to produce lithium carbonate.
Environmental factors or assumptions	• *Assumptions made regarding possible waste and process residue disposal options. It is always necessary as part of the process of determining reasonable prospects for eventual economic extraction to consider the potential environmental impacts of the mining and processing operation. While at this stage the determination of potential environmental impacts, particularly for a greenfields project, may not always be well advanced, the status of early consideration of these potential environmental impacts should be reported. Where these aspects have not been considered this should*	Impacts of a lithium operation at the Solaroz Project would include surface disturbance from the creation of extraction/processing facilities, ponds and associated infrastructure, accumulation of various salt tailing impoundments and extraction from brine and freshwater aquifers regionally. In the event that DLE is used then ponds or brine injection infrastructure would be required. The Arcadium Olaroz and Lithium Argentina Olaroz-Cauchari lithium projects to the south of the Solaroz Project are fully permitted and the Olaroz Project has been extracting brine since 2015. In this context, the Project is more comparable to a brownfields project.

Criteria	Explanation	Comments
	be reported with an explanation of the environmental assumptions made.	
Bulk density	• *Whether assumed or determined. If assumed, the basis for the assumptions. If determined, the method used, whether wet or dry, the frequency of the measurements, the nature, size and representativeness of the samples.* • *The bulk density for bulk material must have been measured by methods that adequately account for void spaces (vugs, porosity, etc), moisture and differences between rock and alteration zones within the deposit.* • *Discuss assumptions for bulk density estimates used in the evaluation process of the different materials.*	Density measurements were taken as part of the drill core assessment. This included determining dry density and particle density as well as field measurements of brine fluid density. Note that no open pit or underground mining is to be carried out as brine is to be extracted by pumping and consequently sediments are not mined but the lithium is extracted by pumping. No bulk density was applied to the estimates because Mineral Resources are defined by volume, rather than by tonnage. The salt unit is compact but can contain fractures and vugs which host brine and within contained sand intervals.
Classification	• *The basis for the classification of the Mineral Resources into varying confidence categories.* • *Whether appropriate account has been taken of all relevant factors (i.e. relative confidence in tonnage/grade estimations, reliability of input data, confidence in continuity of geology and metal values, quality, quantity and distribution of the data).* • *Whether the result appropriately reflects the Competent Person's view of the deposit*	The Mineral Resource has been classified in the Indicated and Inferred categories, based on the intermediate stage of exploration to date. Additional drilling is anticipated to support future reclassification of the Mineral Resource, particularly with the addition of holes further west in the resource area, to better understand how the lithium concentration varies towards the western limit of the strongly conductive zone corresponding to brine. The Indicated Resource is defined within 3km of drill holes in the Central Block of concession, where most of the drilling has been conducted and where the extensive geophysical programmes completed provide additional support and confidence in the correlation of drilling data. 3km was selected, rather than the 5km suggested as a maximum by Houston et. Al., (2011), because the resource is defined off the salar and the lithium concentrations may change more significantly in this environment. There is also less control along the Western edge of the resource. Therefore 3km was considered a reasonable distance for correlation, which is supported by the correlation between drill holes and consistent lithological Units A through D. There are reasonable correlations between holes in terms of lithological units and specific yield porosity. The greatest uncertainty is the lack of drilling along the Western side of the resource area, to define with greater certainty the lithium concentration along this edge of the resource. The defined Inferred Mineral Resource reflects the early stage of exploration, with complete laboratory porosity data not yet received for all holes. The Inferred Resource is defined using the suggestion of Houston et. Al. (2011) of 7 to 10km for distances between holes for Inferred classification. The northern extent of the Northern Block is slightly less than 10km from SOZDD007. There is extensive geophysical coverage of this property and SOZDD007 has improved the interpretation in this area. Consequently, there is reasonable confidence in the continuity of geology and porosity within the Mineral Resource area and the lithium concentration variation laterally and vertically will be better defined by further drilling.

Criteria	Explanation	Comments
		In the view of the Competent Person (in respect of the Mineral Resource estimate), the Mineral Resource classification is believed to adequately reflect the available data and is consistent with the suggestions of Houston et. al., 2011.
Audits or reviews	• *The results of any audits or reviews of Mineral Resource estimates*	This Mineral Resource was estimated by independent consultancy Hydrominex Geoscience Pty Ltd. This upgraded estimate has not been independently audited or reviewed. An internal 'sense check' has been conducted with a simple volumetric estimate.
Discussion of relative accuracy/ confidence	• *Where appropriate a statement of the relative accuracy and confidence level in the Mineral Resource estimate using an approach or procedure deemed appropriate by the Competent Person. For example, the application of statistical or geostatistical procedures to quantify the relative accuracy of the Resource within stated confidence limits, or, if such an approach is not deemed appropriate, a qualitative discussion of the factors that could affect the relative accuracy and confidence of the estimate.* • *The statement should specify whether it relates to global or local estimates, and, if local, state the relevant tonnages, which should be relevant to technical and economic evaluation. Documentation should include assumptions made and the procedures used.* • *These statements of relative accuracy and confidence of the estimate should be compared with production data, where available.*	Univariate statistics for global estimation bias, visual inspection against samples on sections and swath plots were evaluated to detect any spatial bias and shows a reasonable agreement between the samples and the estimate. The model is highly sensitive to specific yield values used. The BMR values used for the estimation are generally less than the specific yield laboratory values.

Table 3 - Drillhole Collar Location, Azimuth and Depth for Diamond Core Hole SOZDD001

Hole ID	Easting	Northing	Elevation	Inclination	Azimuth (Grid)	Approx. Hole Depth
	POSGAR Zone 3		AHD	Degrees	Degrees	Metres
SOZDD001	3422471	7409972	3908	90	0	337.5

Note:

(1) SOZDD001 - Drilling was stopped for operational reasons whilst still in lithium brine mineralisation in the Deep Sand Unit, which remains open at depth[14]

Table 4 - Results of Relevant Lithium Assays from Brine Samples - SOZDD001 (September 2023)

Sample	Hole Depth Range		Li	Mg	Mg/Li	Conductivity	pH	Density
	From (m)	To (m)	mg/l	mg/l	Ratio	(mS/cm)		(g/ml)
Lanshen DLE Testwork (head grade) #S0051	127	305	463	704	1.52	228	6.8	1.19

Notes:

(1) SOZDD001 was drilled in December 2022 and a combination of non-perforated and perforated PVC was inserted with the aid of the drill rig to predetermined depths to ensure perforated PVC is located in the Company's preferred aquifer. The rest of the drillhole was isolated from that location with non-perforated PVC.

(2) A tri-cone pre-collar was isolated at a drill hole depth of ~60 metres, to separate the fresh/brackish water and to prevent dilution with the sampling and assaying of the deeper brines.

(3) Samples for the Lanshen DLE test work were taken from the SOZDD001 drilhole by mechanical pumping of brine from 3-inch PVC that was previously inserted post drilling into SOZDD001. The PVC is unperforated from 0 - 127m depth, with a screened perforated section at the following intervals below 127m:

- 127 - 162m
- 175 - 187m
- 197 - 226m
- 277 - 305m

By pumping the brine from within the PVC, the brine is replenished by an influx of brine from the perforated PVC intervals. The brine is continually pumped (2-3 times the brine volume within the PVC) and tested with onsite equipment until a steady state is achieved in conductivity/density. Thereafter, the brine was collected in one cubic metre containers and transported to Lanshen's Laboratory Facility in Santiago, Chile

14 Refer LEL ASX Announcements dated 10 March 2023: Positive Specific Yields and Significant Averaged Lithium Concentrations in SOZDD001 at Solaroz Lithium Brine Project, 16 November 2022: Drilling Completed at Maiden Drillhole at Solaroz Lithium Brine Project, 1 November 2022: Further Significant Lithium Concentrations Encountered in Maiden Drillhole at Solaroz Lithium Brine Project, 19 October 2022: Major Lithium Discovery Confirmed In First Drillhole of Maiden Programme at the Solaroz Lithium Brine Project and 5 October 2022: Significant Intersection of Highly Conductive Brines in Maiden Drillhole at Solaroz Lithium Brine Project