LITHIUM ENERGY LTD

Thursday, 29 June 2023 ASX Code : LEL

Significant Maiden JORC Lithium Resource of 3.3 Mt LCE at Solaroz Project in Argentina

SUMMARY

- Significant maiden **JORC Inferred Mineral Resource** Estimate (**MRE**) of **3.3 Million tonnes of Lithium Carbonate Equivalent (LCE)** defined at the Solaroz Lithium Brine Project in Argentina.
- This maiden MRE confirms Solaroz as a highly strategic lithium asset being substantial in size and located directly adjacent to the Olaroz lithium brine production facilities owned by Allkem Limited (ASX:AKE).
- 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).
- This initial 3.3Mt LCE Resource is within a 4,777 ha area identified by TEM geophysics as having elevated conductivity representing brine and encompassing the first 5 holes drilled at Solaroz to date.
- 3 drill rigs continue operating on site with further planned holes targeting upgrades to the MRE for the balance of the ~12,000 ha at Solaroz.
- Infill drilling is also planned to upgrade the Resource from an Inferred category, with test production wells to be installed in support of on-going engineering and other technical and feasibility studies relating to the commercial development (into production) of Solaroz.

Lithium Energy Limited (ASX:LEL) (**Lithium Energy** or **Company**) is pleased to announce a maiden JORC Inferred Mineral Resource of **3.3Mt of Lithium Carbonate Equivalent (LCE)** for the Solaroz Lithium Brine Project (LEL:90%) in Argentina. Located next to Allkem's Lithium Facility in the Salar de Olaroz basin (the Olaroz Salar), Solaroz is in the heart of South America's world-renowned 'Lithium Triangle'.

This initial **3.3 Mt LCE Resource** encompasses an area covered by the first 5 holes of an initial 10 hole drilling programme, together with extensive geophysics, and encompasses portions of the 'Central Block' of concessions (Chico I, V and VI, Payo 2 South and Silvia Irene) and the southern Mario Angel concession (refer Figures 2 and 3) totalling 4,777 hectares out of the total ~12,000 hectare area of the Solaroz concessions.

Executive Chairman, William Johnson, commented:

> *This Maiden Resource estimate of 3.3 million tonnes of LCE confirms the potential for Solaroz to be a world class lithium project, with reported lithium grades, brine volumes, Mg/Li ratios, and specific yields all being positive indicators for the potential economic future brine extraction at Solaroz.*
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> *Solaroz is located on the Olaroz Salar (salt-lake) in North-West Argentina, one of the best locations in South America's 'Lithium Triangle' for developing large scale lithium brine operations, as evidenced by our Olaroz neighbours Allkem and Lithium Americas. Allkem has reported production of lithium carbonate from Olaroz since 2015 using traditional brine evaporation, with latest reported cash costs of only US$4,924/tonne LCE and reported Gross cash margin of US$47,814/tonne LCE[1].*

1 Source: Allkem ASX announcement released on 20 April 2023 entitled "March 2023 Quarterly Activities Report Revised"

The 5 holes drilled to date are located mostly along the eastern boundaries of the Central Block of concessions. In the absence of drilling data to date to the north and west of these holes, the Mineral Resource Estimate interpolates the average lithium concentrations progressively decline in these directions away from the Olaroz Salar. This interpretation will be tested by further drilling, highlighting the potential for further upgrade to the Resource size and grade from the area covered by this MRE.

The 'Northern Block' of concessions (Payo 1 and Payo 2 North) (totalling ~2,731 hectares) and the western areas of the Central Block' have yet to be drilled. The Company is continuing to advance its drilling programme to target these substantial areas, where there is potential for further brines as identified by previously conducted geophysics. In addition, the Company is planning further infill drilling to upgrade the Inferred Resource category and test production wells to support the ongoing engineering and development studies for Solaroz, including works to advance the recently completed agreement with Xi'an Lanshen New Material Technology Co., Ltd (**Lanshen**) for the construction of a 3,000 tonne per annum LCE production plant to be located at the Mario Angel concession[2].

The Company is finalising a Scoping Study (being prepared by Hatch) for the production of battery grade lithium carbonate from the lithium rich brines at Solaroz, via both traditional pond evaporation and DLE technology)[3]. The **high-grade core of 1.34Mt LCE** with an average concentration of **405 mg/l Lithium** (at a 350 mg/l Lithium cut-off grade) within the 3.3Mt LCE Resource exceeds the average Li concentration of 389 mg/l Lithium currently being used by Hatch in the Scoping Study for a proposed 20,000 tpa to 40,000 tpa pond evaporation plant at Solaroz.

Executive Chairman, William Johnson, further commented:

> *With the establishment of this significant Maiden Resource, the Company will now focus on fast-tracking the development of Solaroz. In March 2023 the Company engaged engineering consultancy Hatch to commence initial engineering and scoping studies for the production of battery grade lithium carbonate from the lithium-rich brines of Solaroz. Whilst these studies are focussed on the same pond evaporation methodology for lithium concentration currently used by Solaroz neighbours Allkem and Lithium Americas, they also include the evaluation of various Direct Lithium Extraction (DLE) technologies as alternatives to, or in combination with, pond evaporation.*
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> *In this regard, the agreement recently executed between the Company and Lanshen provides significant advantage for the Company to examine in parallel to traditional pond evaporation processes which have been proven by both Allkem and Lithium Americas in their operations in the Olaroz Salar, the potential to evaluate the applicability of Direct Lithium Extraction (DLE) technology in the salar in a manner that considerably de-risks the Company in evaluating this technology.*
>
> *Drilling will continue to advance at Solaroz, targeting additional areas where potential for further lithium mineralisation has already been identified by geophysics, together with further infill drilling to upgrade the Maiden Inferred Resource and test production wells planned in support of the engineering and development studies for Solaroz.*
>
> *Having now established this significant 3.3 Million Tonne resource of LCE at Solaroz, Lithium Energy is excited to continue advancing towards the development of its flagship Solaroz Project.*

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 Refer LEL ASX Announcement dated 20 March 2023: Commencement of Lithium Brine Scoping Study at Solaroz

Overview of Maiden Solaroz JORC Inferred Mineral Resource

Table 1 : Solaroz JORC Inferred Mineral Resource Estimate

Units	Sediment Volume m³	Specific Yield %	Brine volume m³	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
Total	17,843,400,000	11.4	2,028,708,000	2,028,708,000,000	310	628,194,540,000	628,195	**3,330,000**

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_2CO_3) 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 2 : High-Grade Core within Solaroz JORC Inferred Mineral Resource Estimate

Units	Sediment Volume m³	Specific Yield %	Brine volume m³	Litres	Li mg/l	Li grams	Li Tonnes	LCE Tonnes
A (Upper Aquifer)	325,000,000	13.0	42,250,000	42,250,000,000	376	15,886,000,000	16,000	85,000
B (Halite Salt Unit)	690,400,000	4.0	27,616,000	27,616,000,000	379	10,466,464,000	10,000	56,000
C (Lower Aquifer)	4,787,600,000	11.5	550,574,000	550,574,000,000	408	224,634,192,000	225,000	1,195,000
Total	5,803,000,000	10.7	620,440,000	620,440,000,000	**405**	250,986,656,000	251,000	**1,340,000**

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 1

(b) Reported at a 350 mg/l Lithium cut-off grade

(c) Refer Notes (a) to (c) of Table 1

Further details are in the Mineral Resource Classification section below.

Project Background

Lithium Energy's Solaroz Lithium Brine Project (LEL:90%[4]) comprises 8 mineral concessions (**Solaroz** or **Project**) located on the Salar de Olaroz basin (the **Olaroz Salar**) in North-West Argentina within South America's 'Lithium Triangle' (refer Figure 2). The Solaroz concessions total approximately 12,000 hectares located in three groups:

- Central Block: Chico I, V and VI, Payo 2 South and Silvia Irene concessions totalling ~8,631ha;
- Northern Block: Payo 1 and Payo 2 North concessions totalling ~2,731ha; and
- Southern concessions: Mario Angel (542.92ha) and Payo (987.62ha) concessions.

4 Lithium Energy has a 90% shareholding in Solaroz S.A., which holds the Solaroz concessions.

The Olaroz Salar covers approximately 45,000 hectares (approximately 30 kilometres long and 15 kilometres wide). Lithium Energy is one of only three groups that control the lithium concession rights on and adjacent to the Olaroz Salar, with the remainder of these lithium rights held by Allkem Limited (ASX/TSX:AKE) (**Allkem**)[5] and Lithium Americas Corporation (TSX/NYSE:LAC) (**Lithium Americas**) (refer Figure 2).

Figure 1: North-Western section of the Olaroz Salar, where Solaroz concessions are located

Allkem's Olaroz Lithium Facility (in a joint venture with Tokyo Stock Exchange listed Toyota Tsusho Corporation (TYO:8015)) has been extracting lithium brine and producing lithium carbonate since ~2015.[6] Lithium Americas' Cauchari-Olaroz Project (in a joint venture with Ganfeng Lithium) has recently commenced production of lithium carbonate on the neighbouring Salar de Cauchari.[7]

Project Location

Solaroz is located approximately 230 kilometres north-west of San Salvador de Jujuy, the capital of the Province of Jujuy, at an altitude of approximately 3,900 metres. The paved international highway (National Route 52 - RN52), linking San Salvador de Jujuy to ports in the Antofagasta region of Chile, passes approximately 35 kilometres south of the Project. Solaroz is reached by the all-weather gravel road (RN70), passing west of the Olaroz Salar and the Allkem Olaroz Lithium Facility plant and camp.

RN52 is used by Allkem to export lithium carbonate product and to import key chemicals used in the production of lithium carbonate (such as soda ash). Solaroz is also located close to an existing gas pipeline. Solaroz is approximately 5 hours light vehicle travel from San Salvador de Jujuy, where Lithium Energy has a local office.

Project Geology

The Project area covers a series of gravelly alluvial fan cones to the north-west of the Olaroz Salar and west of the Rosario River, which flows into the north of the Olaroz Salar, with water evaporating and infiltrating through the gravel sequence as it flows through the basin towards the salar .

In the west of the Solaroz concessions, there are mapped outcrops of the Ordovician Puna Turbidite Sequence, which is mapped as consisting of metasediments, highly fractured sandstones and shales. The Tertiary sediments in the west of the Solaroz concessions are mapped as Sijes Formation, a Miocene Tertiary Formation, composed of sandstones and fine grained sediments deposited in a terrestrial environment, similar to the current setting of the Olaroz Salar.

There are a series of approximately north-south trending reverse faults juxtaposing Tertiary and older units in a series of fault steps on the Western side of the Olaroz Salar, with a similar structural setting, with different geological units on the east of the salar.

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5 Allkem has recently announced a US$10.6 billion merger with lithium processing technology company, Livent Corporation (NYSE:LTHM) - refer Allkem ASX Announcement 10 May 2023: Allkem and Livent to Create a Leading Global Integrated Lithium Chemicals Producer; Allkem (then known as Orocobre Limited (ASX:ORE)) merged with Galaxy Resources Limited (ASX:GXY) in 2021

6 Source: Allkem ASX announcements

7 Source: Lithium Americas public releases

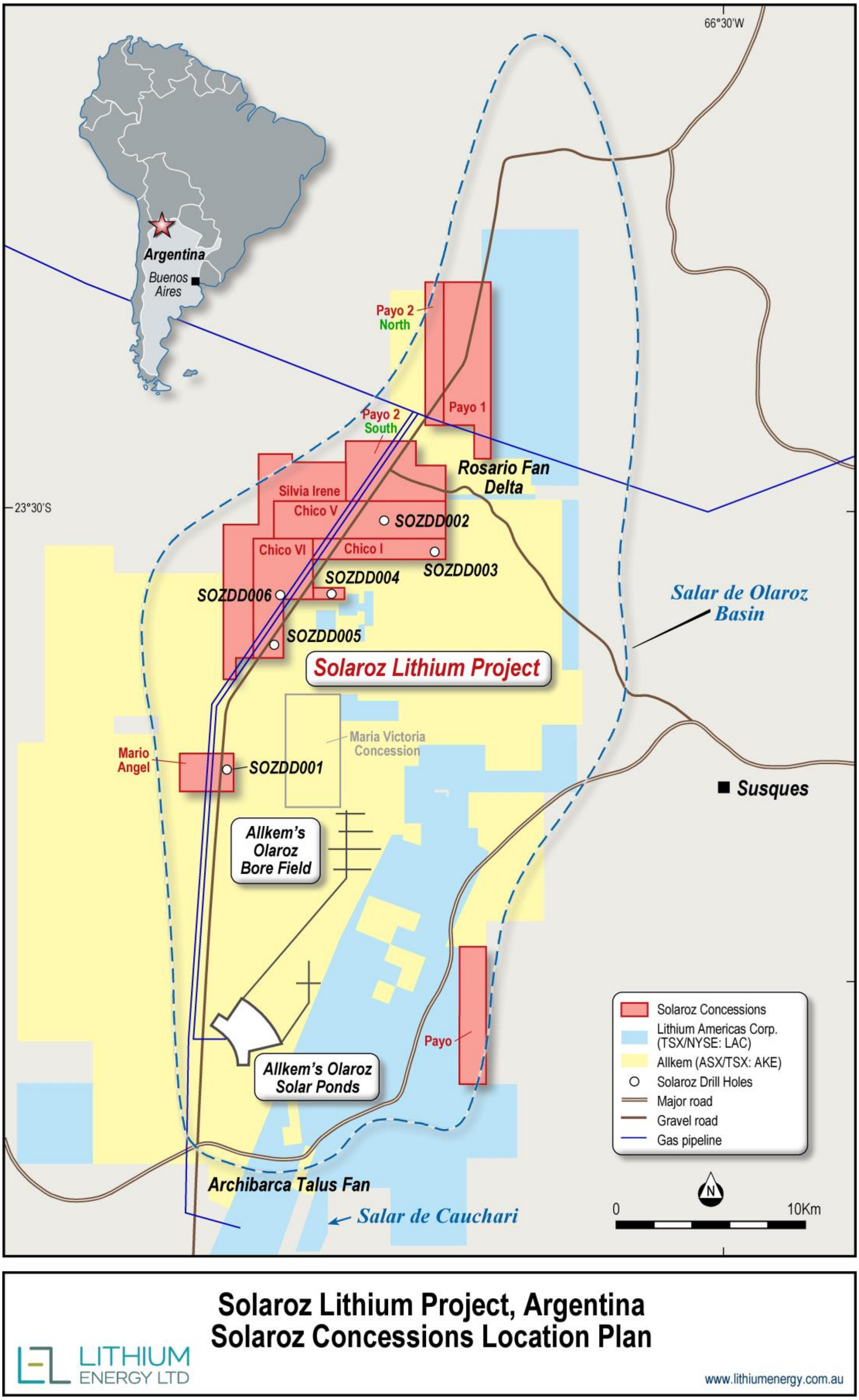

Figure 2: Solaroz Concessions (and Current Drillhole Locations) in Olaroz Salar (Adjacent to Allkem and Lithium Americas Concessions)

Drilling Programme

To date, Lithium Energy has completed 5 diamond drill holes (SOZDD001 to SOZDD005), for a total of approximately 2837.5 metres, in the Central Block (Chico I, IV and V concessions) and the southern Mario Angel concession. The initial 10 hole (approximately 5,000 metres) resource definition drilling programme is designed to target areas identified as having thick sequences of brine, based on the Geological Model for Solaroz derived from historical third-party exploration and the Company's extensive geophysical surveys.

Drilling has encountered an upper sand and gravel sequence (**Unit A** or **Upper Aquifer**) related to the current alluvial fan landform. This overlies a halite (common salt) unit (**Unit B**) identified in three of the drill holes, which is correlated with the extensive salt unit identified by Allkem and Lithium Americas extending through the Olaroz Salar and Salar de Cauchari salt lakes, within the basins of the same names. Beneath the halite there is another extensive sequence of gravel and sand (**Unit C** or **Lower Aquifer / Deep Sand Unit**), extending to what is interpreted as Tertiary bedrock at depths exceeding 500 metres. The halite layer acts as a confining layer, separating the upper and lower sequences of sand and gravel.

An overview of the drilling highlights at Solaroz to date are shown in Figure 3 - massive **intersections of lithium-rich brines** in the upper and lower (Deep Sand Unit) aquifers **of up to 473.5 metres thick** (in Hole 4 - SOZDD004[8]) and **lithium concentrations of up to 555 mg/l** (in Hole 1 - SOZDD001[9]) have been encountered along a ~15 kilometre zone between SOZDD001 and SOZDD003.

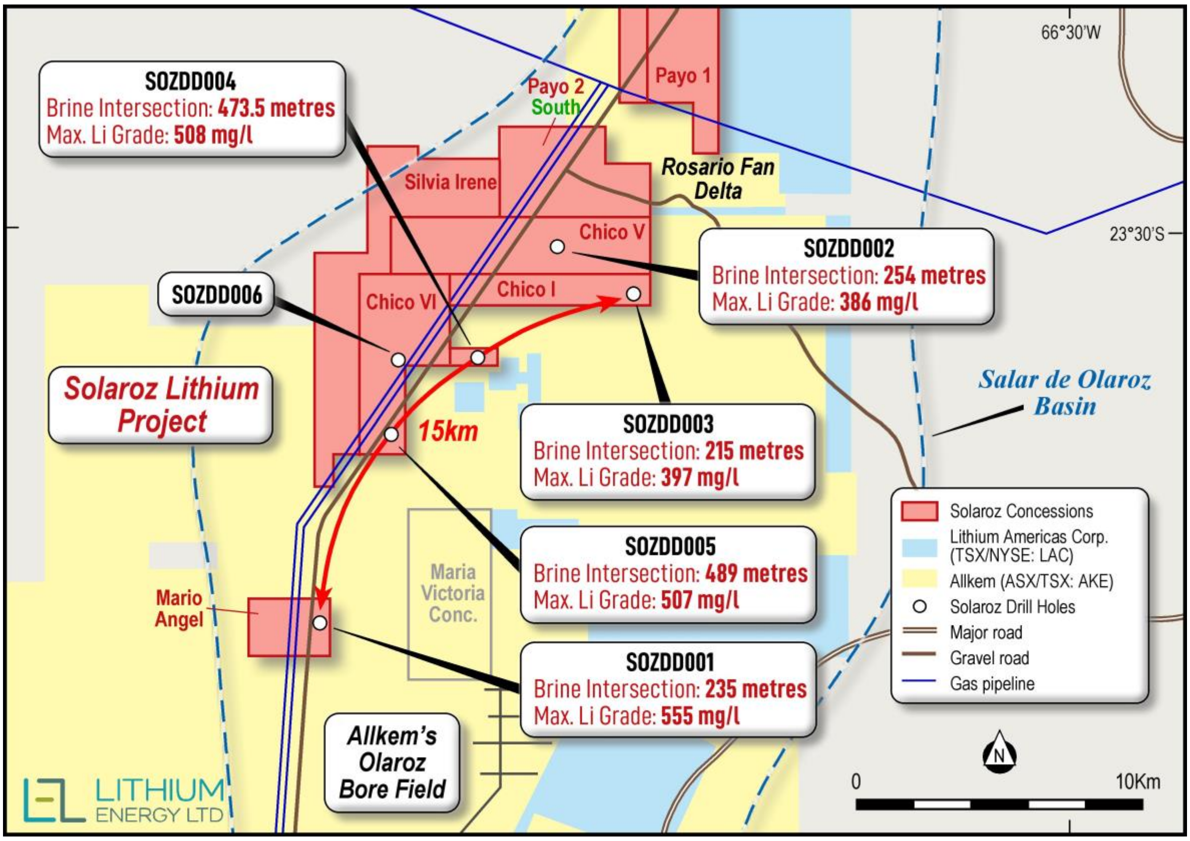

Figure 3: Location of Drillholes Across 15km Zone Between Solaroz Drillholes Where Massive Intersections of Conductive Brines Where High Lithium Concentrations Encountered

8 Refer LEL ASX Announcement dated 15 May 2023: Further Assays Confirm Significant Lithium Brine Concentrations Across Massive Intersections at Solaroz

9 Refer LEL ASX Announcement dated 10 March 2023: Positive Specific Yields and Significant Averaged Lithium Concentrations in SOZDD001 at Solaroz Lithium Brine Project

Holes SOZDD001 and SOZDD003 did not reach the bedrock beneath unconsolidated sediments. Hole SOZDD002,in the centre of the Central Block, intersected what is interpreted as older Ordovician bedrock. Holes SOZDD004 and SOZDD005 intersected interpreted younger Tertiary bedrock, defining the topography in the bedrock surface.

SOZDD004 and SOZDD005 are currently pending geophysical logging, where measurements will be undertaken for total porosity, specific yield, conductivity, resistivity and spectral gamma.[10] SOZDD006 is in progress, in brines hosted in sands of the Upper Aquifer and the clay equivalent of Unit B, corroborating the geological model to date - brine sampling is ongoing with assay results pending.[11]

Drilling is being conducted with diamond HQ diameter drilling rods. Core samples for porosity analysis are being collected directly into Lexan polycarbonate core tubes, for shipping to a designated laboratory for porosity measurements.

In respect of the balance of the initial 10 hole maiden drilling programme:

- Additional holes are planned in the Central Block, to improve the confidence in correlation of lithology, porosity and brine concentration between holes; and
- Drilling will be undertaken to evaluate the Northern Block, comprising the Payo 2 North and Payo 1 concessions.

Geophysics Programme

Lithium Energy has conducted extensive geophysical campaigns across the Solaroz concessions, consisting of[12]:

- Passive seismic tomography surveys - which were used to determine the base of the underlying bedrock, with the bedrock defining the theoretical depth limit of potential lithium mineralisation; and
- Transient Electromagnetic geophysics (**TEM**) - which measures electrical conductivity at depth and was used to identify the depth of conductive brines (i.e. salty water with low electrical resistivity) above the bedrock identified by the Passive Seismic programme.

These investigations confirmed the conductive brine body identified in the historical Allkem Olaroz North AMT[13] geophysical line, which runs beside the Chico I, Chico V and Payo 2 South Solaroz concessions (refer Figure 6). Lithium Energy's own surveys have defined the top of the brine body and the contact between the unconsolidated sediments and underlying consolidated bedrock, to outline the extent of the brine body.

TEM (refer Figure 4) was undertaken to map out the distribution of the brine body in the Solaroz concessions. This method used a loop of 200 by 200 metres centred on stations every 400 metres and was able to resolve conductive zones to a depth of 500 metres or more under the gravels located off the Olaroz Salar. This technique was highly effective in mapping brine, with a conductivity of 2 ohm metre or less, with underlying units, interpreted as bedrock with information from drilling, displaying conductivities of 4 ohm metre or higher. TEM allowed definition of the outer extent of the brine, which was used to define the western boundary of the maiden Solaroz mineral resource. This information was subsequently combined with information from the passive seismic programme.

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10 Refer LEL ASX Announcement dated 15 May 2023: Further Assays Confirm Significant Lithium Brine Concentrations Across Massive Intersections at Solaroz

11 Refer also LEL ASX Announcement dated 1 June 2023: Hole 6 Intersects Conductive Brines in Upper Aquifer at Solaroz Lithium Brine Project

12 Refer also LEL ASX Announcements dated 18 August 2022: Highly Encouraging Geophysics Paves Way for Commencement of Drill Testing of Brines at Solaroz and 9 May 2022: Geophysics Expanded Across all Concessions to Refine Drill Targets at Solaroz Lithium Project

13 Audio-frequency Magnetotellurics (**AMT**) method

Lithium Energy undertook an initial passive seismic (refer Figure 5) programme on a series of lines typically northwest-southeast, northeast-southwest, east-west and north-south through the Solaroz concessions (refer Figure 6). This programme successfully defined the depth to the bedrock, to understand the thickness of the brine body. Given the success with this initial programme, an east-west/north-south oriented grid was established over the Project area for further data collection. The western extent of this grid was based on the western extent of the conductive zone considered to represent the brine body. The location of Allkem's (AMT and gravity) geophysics lines is also shown in Figure 6.

The grid passive seismic survey, with increased frequency of data points, has allowed better definition of the bedrock, and has also allowed definition of the halite unit (discussed below) which is the middle unit (Unit B) in the Project stratigraphy and forms a notable seismic horizon in addition to the bedrock. Definition of the halite unit allows definition of the stratigraphy away from drill holes and more confident definition of the geological model for mineral resource estimate purposes. The halite unit is interpreted to be extensive in the east of the Solaroz concessions, thinning to the west. The intersection of bedrock was used to select the seismic velocity through the gravel and sand sequence, at 613 m/s. The seismic velocity is faster in the halite unit and future interpretation will be improved with a three layer model, rather than a simple two layer model.

The passive seismic survey and TEM geophysics show that the brine body is thicker towards the east of the Solaroz concessions, where it typically extends to greater depth, towards what is interpreted to have been the previous extent of the Olaroz Salar, before it was covered by alluvial sediments.

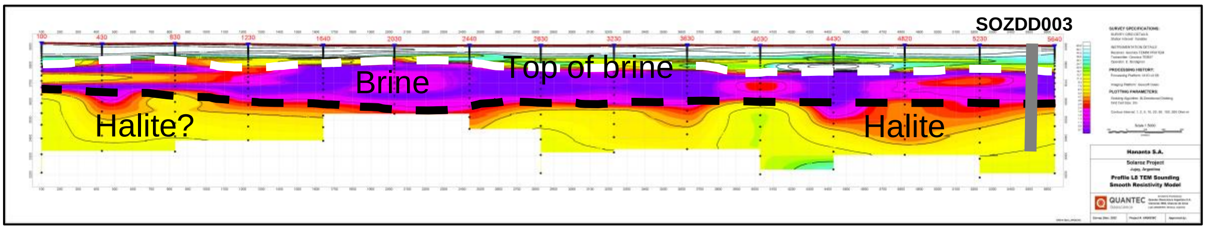

Figure 4: TEM Line 8 in the south of the Central Block, at the widest, where SOZDD003 was completed, showing the upper zone of dry sediments, the top of the brine and the top of the halite unit

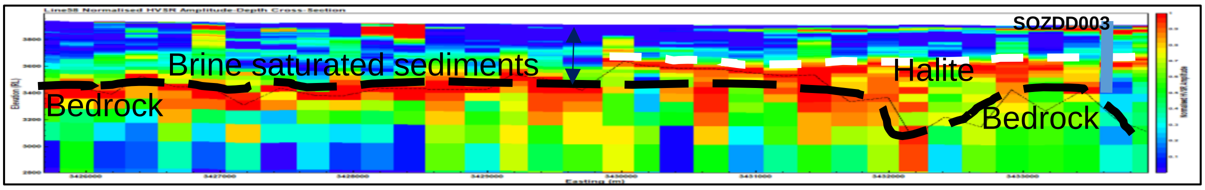

Figure 5: Passive Seismic Line 58, corresponding to TEM Line 8 (above), showing the interpreted bedrock contact and the top of the halite unit

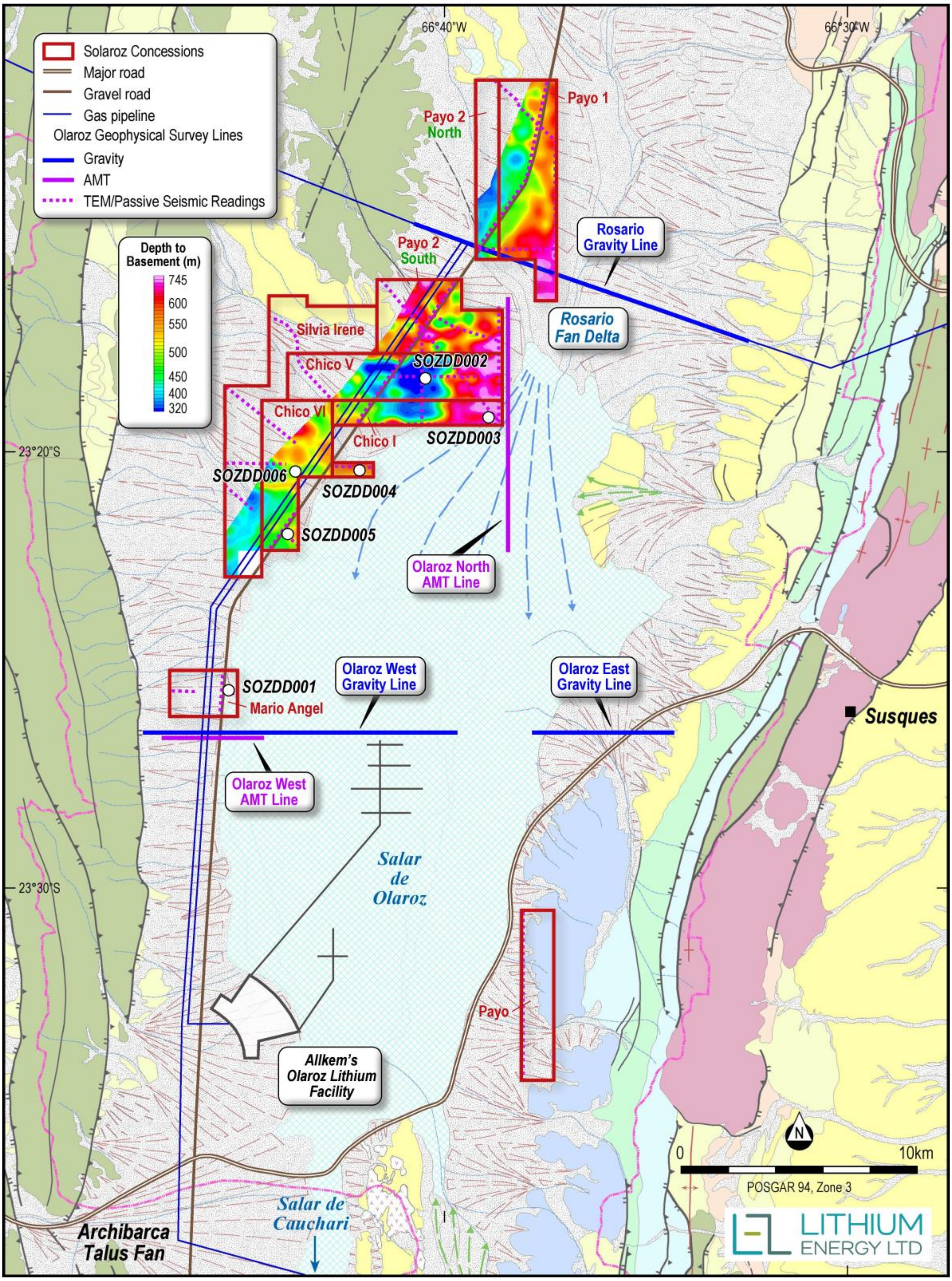

Figure 6: Location of Solaroz (TEM and passive seismic) geophysical lines and Allkem's historical (gravity and AMT) geophysical lines[14]; Geophysical image showing depths to basement (bedrock); Geology of the Olaroz Salar; Location of the Solaroz Concessions

14 Source: Salfity Geological Consultants - www.salfitygeologicalconsultant.com

Drill Hole Stratigraphy

Drilling has established a consistent stratigraphy between the holes drilled to date. This consists of an upper sequence of gravels and sands, with some clay units, a halite (common salt) unit and a lower sequence of gravels and sands, overlying compact sand and clay units, which are interpreted as probable Upper Tertiary weakly lithified bedrock and which, at this stage of the Project's development, have been included in the geological model as part of the bedrock. SOZDD002 intersected a deformed shale unit, which is fully lithified and is interpreted to be Ordovician bedrock, likely to extend beneath the Tertiary bedrock (refer Figure 7).

The upper sequence of gravels and sand (Unit A/Upper Aquifer) is interpreted to reflect the current alluvial fan, meeting the deltaic environment of the Rosario River Delta, which is located adjacent to the alluvial fan. This sequence contains one significant clay unit and several subordinate clayey units. In SOZDD001, there are travertine units and intervals with carbonate cement and gypsum development in the hole. These reflect the peripheral location of this hole relative to the Olaroz Salar.

The middle unit in the sequence is the halite interval (Unit B). In SOZDD003, this unit is over 200 metres thick, in the point closest to the marginal zone (the zone of mixed evaporite crust north of the Olaroz Salar). This unit thins to the west, where intersections in SOZDD004 and SOZDD005 are approximately 40 metres thick. In SOZDD001, the halite unit was not intersected in the hole (where drilling was completed to a depth of 335 metres), however, it may correlate laterally with the unit with clay and silt from 230 to 270 metres. The halite and clay units form important seals (aquitards) between the upper sand and gravel sequence and the lower sand and gravel sequence, likely to minimise any impacts of pumping from the lower sand and gravel sequence.

The lower sand and gravel sequence (Unit C/Lower Aquifer) contains fragments of the interpreted Ordovician bedrock in some gravel layers and a small portion of clay units, up to 15 metres thick. The contact with the underlying interpreted Tertiary Sediments is not sharp and appears to be erosional. The lower interval interpreted as Tertiary bedrock in SOZDD004 is a sequence of compact clays, sands and minor gravel, suggesting a similar environment to the lower sand and gravel sequence, having been subject to partial lithification.

The passive seismic survey identified the Tertiary and Ordovician age bedrock. However, the survey also identified the top of the halite unit as a reflector on many sections, which allowed correlation between drill holes of the distribution of the halite unit, located between the upper and lower sand and gravel sequences. This improved the geological model and assignment of porosity within the model, as the halite unit is compact, with relatively low specific yield, forming an important aquitard.
The passive seismic defined a central bedrock high in the Central Block concessions. This was confirmed with the drilling of SOZDD002, which intersected the interpreted Ordovician bedrock at 293 metres depth and the deeper intersection of interpreted Tertiary aged bedrock in SOZDD004.

By way of illustration, Figure 7 shows the drillhole lithology stratigraphy (and geophysical hole logging results) for SOZDD003. Refer also equivalent Figure 12 (for SOZDD001), Figure 13 (for SOZDD002), Figure 14 (for SOZDD004) and Figure 15 (for SOZDD005).

Geophysical Hole Logging and Specific Yield Measurements

Holes were drilled as HQ diameter diamond holes. During the drilling, core samples were collected in Lexan polycarbonate core tubes. When samples were recovered from the core barrel they were sealed with plastic caps and a 30cm interval of core cut from the bottom of the core. This interval was sealed with caps and tape, to prevent fluid loss. The sample was labelled with top and bottom depths and sent to the GeoSystems Analysis (**GSA**) laboratory in Arizona (USA). There samples were analysed using the Rapid Brine Release (**RBR**) method, which involves applying a suction of 120 mbars to samples, followed by a suction of 330 mbar.

At the date of this announcement, down-hole Specific Yield results have been received for holes SOZDD001 through to SOZDD003 from Borehole Magnetic Resonance (**BMR**) geophysical logging and from GSA laboratory analyses (refer Table 3). Results are pending for holes SOZDD004 and SOZDD005.

Table 3 : Specific Yield (Sy) Data

Drillhole	Units	No. of Measurements	Sy Minimum	Sy Maximum	Sy Average (Uncut)	Sy Average (Cut)
SOZDD001	A	5,795	0.01	0.21	0.125	0.106
SOZDD002	A	4,909	0.01	0.21	0.084	0.084
SOZDD003	A	4,727	0.01	0.21	0.098	0.094
SOZDD001	B	3	0.01	0.05	0.029	0.03
SOZDD001	C	1,069	0.01	0.21	0.060	0.068
SOZDD003	C	1,427	0.01	0.21	0.096	0.090

Notes:

(a) Units A and C data was derived from BMR Geophysical Logging of relevant drillholes

(b) Unit C data was also derived from laboratory analysis of samples

GSA developed the RBR method (Yao et al., 2018) to measure Specific Yield and total porosity. The RBR method is based on the moisture retention characteristics (**MRC**) method for direct measurement of Total Porosity (**Pt**), Specific Retention (**Sr**), and Specific Yield (**Sy**), (Cassel and Nielson, 1986). A simplified Tempe cell design (Modified ASTM D6836-16) was used to test the core samples. Brine release was measured at 120 mbar and 330 mbar of pressure for reference (Nwankwor et al., 1984, Cassel and Nielsen, 1986). Bulk density, particle size analyses and specific gravity are also determined on selected core samples.

The pressures used in the testing are based on extensive research with soils, with the 120 mbar measurement considered to represent free drainage of coarser grained sediments and the 330 mbars to represent long term gravity drainage of sediments, considered to represent the Specific Yield (Sy) of sediments.

In addition to the samples analysed in the GSA laboratory, holes are geophysically logged with a group of geophysical tools by Argentina-based company, Zelandez. Logging tools consisted of spectral gamma, resistivity, conductivity, caliper and BMR. BMR is a geophysical tool developed by the oil industry to measure porosity and permeability in-situ in wells, to assist reservoir studies.

The BMR tool used for the drilling campaign is purpose built for logging of exploration diameter drill holes and was designed and built in Australia to operate in highly saline environments like salars. The tools are factory calibrated in Australia and maintained regularly by the service provider. The data acquisition and processing methodology gives information on the Total Porosity, Specific Yield, Specific Retention and provides a computation of permeability and hydraulic conductivity with a vertical resolution of 2cm, providing much more information than individual core samples analysed for porosity with a spacing every 12 or more metres.

To date, 59 porosity samples have been received from the GSA laboratory and 8 particle size distributions have been completed. The laboratory samples show a reasonable correlation with the BMR Specific Yield Porosity Profile from the holes, although a number of samples were identified as likely to be significantly disturbed, which were excluded from the comparative analysis.

BMR logging of holes is susceptible to intervals of washout in the drill holes, where the hole diameter is greater than the investigation radius of the BMR tool. For this reason, a caliper log is run to check the hole diameter for areas where BMR measurements would not be valid, such as where the halite unit was partially dissolved during drilling.

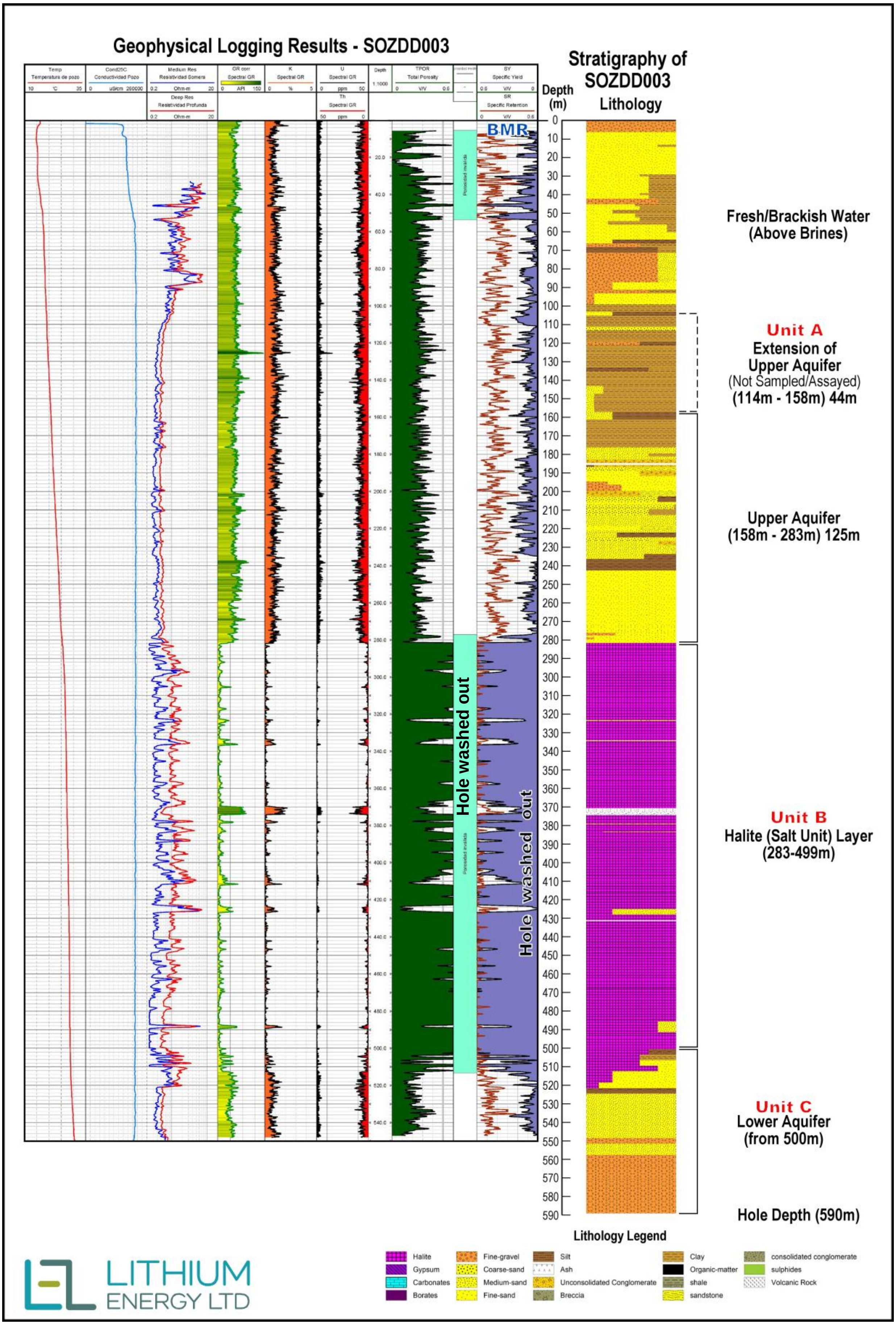

Figure 7: Geophysical Hole Logging Results and Drillhole Stratigraphy for SOZDD003, showing the downhole geophysical profiles and the geological units

As part of the evaluation of porosity data, outliers of more than 30% specific yield porosity were removed from the data set. The average specific yield data from the holes is considered likely to be biased to a lower specific yield, given holes drilled to date are in lower topographic areas, closer to the salar. Consequently, the specific yield used in the Mineral Resource Estimate was adjusted to reflect this view, while remaining within the average specific yield from logging of holes, prior to cutting of high specific yield values.

It is noted the Solaroz Mineral Resource Estimate is extremely sensitive to the specific yield used in the estimation. There was no BMR data available from the halite unit, (due to washouts encountered in SOZDD003). Only a limited number (three) of specific yield samples are available from Unit B in SOZDD001 and SOZDD003. Consequently, an upper value of 4% Specific Yield was applied to this unit, based on the Competent Person's experience in many other lithium brine projects in Argentina.

By way of illustration, Figure 7 shows the geophysical hole logging results (and drillhole lithology stratigraphy) for SOZDD003. Refer also equivalent Figure 12 (for SOZDD001) and Figure 13 (for SOZDD002).

Brine Sampling and Analyses

Brine samples were collected from holes using a packer sampling system. During drilling of holes, samples were taken with a single packer arrangement every approximately 18 metres (or every approximately 24 metres in SOZD004 and SOZD005). The packer is lowered into the hole and the chamber between the packer and the end of the hole is sealed by inflating the packer below the diamond drill bit. The packer sample is extracted from the chamber below the packer by injecting air into the top of the packer assembly, creating a suction effect which extracts brine from the chamber below the packer, flushing the brine to the surface, where it is diverted from the top of the hole via a pipe connected to the top of the drill rods. Purging of three well volumes of brine is conducted, prior to collecting samples for analysis.

When the hole is completed, packer samples are also collected using a double packer arrangement, sampling from the base of the hole upward. The double (straddle) packer arrangement consists of two packers sealing below the diamond bit and another packer sealing within the drill rods, to exclude vertical inflow of brine from other sections of the hole. Double packer samples are compared to single packer results as a QA/QC procedure, along with the use of field duplicate samples, certified brine standards and blank samples as an additional check on laboratory standards.

Brine samples were analysed by the Alex Stewart Laboratory, near San Salvador de Jujuy, which has an extensive history of analysing brine samples from a large number of projects in Argentina over more than a decade. Samples are delivered to the laboratory by Lithium Energy personnel, together with chain of custody data.

Samples are analysed for cations using ICP-OES spectrometry. The anions are analysed using a variety of different techniques defined by ASTM testing guidelines. Analyses include lithium, potassium, magnesium, calcium, boron, iron, manganese, strontium, barium, chloride, sulphate, carbonate and bicarbonate. Samples were submitted with unique sample numbers, related to holes and sample depths in the Project database. Samples have an average low Mg/Li ratio of 2.00 and a relatively low SO_4/Li ratio of 15 to 35, depending on the lithium concentration.

A summary of Lithium concentrations from the 5 holes drilled to date is in Table 4.

Table 4 : Summary of Lithium Concentrations

Drillhole	Li mg/l Minimum	Li mg/l Maximum	Li mg/l Average
SOZDD001	101	555	365
SOZDD002	125	339	231
SOZDD003	299	397	369
SOZDD004	111	508	336
SOZDD005	243	501	420

Note:
(a) Based on drill results to date

Table 9 contains the Lithium concentrations from relevant packer samples collected (and assayed) from the 5 holes drilled to date.

QA/QC Regime

Brine samples were taken in triplicate, with the primary sample sent to the Alex Stewart laboratory in Jujuy. Duplicate samples, standard and blank samples were analysed in the primary and secondary laboratories. Sample batches consisted of field duplicates and standard and or blank samples to test for accuracy, precision and possible contamination between samples. The secondary (triplicate) check samples were sent to the Alex Stewart laboratory in Mendoza, Argentina, and compared with the primary sample and duplicate sample analysed in the Alex Stewart laboratory in Jujuy.

Laboratory porosity samples have been compared with the BMR porosity data measured in holes on the Project, and show a reasonable correlation between the porosity datasets. For additional porosity quality control, paired samples are used, representative of the range in lithology types. These are being tested using other laboratory techniques also used to measure specific yield. The secondary check laboratory for specific yield samples is the Daniel B. Stephens & Associates Laboratory (New Mexico, USA), who use the Relative Brine Release Capacity (**RBRC**, Stormont et. al., 2011) method. Check samples provide an estimate of variability in the definition of the specific yield across different laboratory methods. Results have not yet been processed by the secondary laboratory.

Process Testing

Bulk samples of brine will be provided to Direct Lithium Extraction (**DLE**) technology providers, to evaluate the suitability of different process technologies for the Solaroz brine, which is known to be amenable to conventional processing. Allkem currently uses conventional pond evaporation to produce lithium carbonate at their Olaroz Lithium Facility on the Olaroz Salar.

Geological Model

Lithium Energy's interpretation of the Olaroz Salar basin architecture is a three layer model (refer Figures 8 and 9). At Solaroz, the upper sands and gravels (Unit A) are coarser grained sediments deposited in the alluvial fan, whereas in the Olaroz Salar, the sediments are finer grained clays and sands. The halite unit encountered in Allkem's Olaroz Project and Lithium Americas' Cauchari-Olaroz Project is the same as encountered in Solaroz (Unit B), dividing an upper and lower sequence of clastic sediments. The gravels and sands beneath the halite (Unit C) are coarser equivalents to the highly productive deep sand unit encountered in Olaroz and Cauchari.

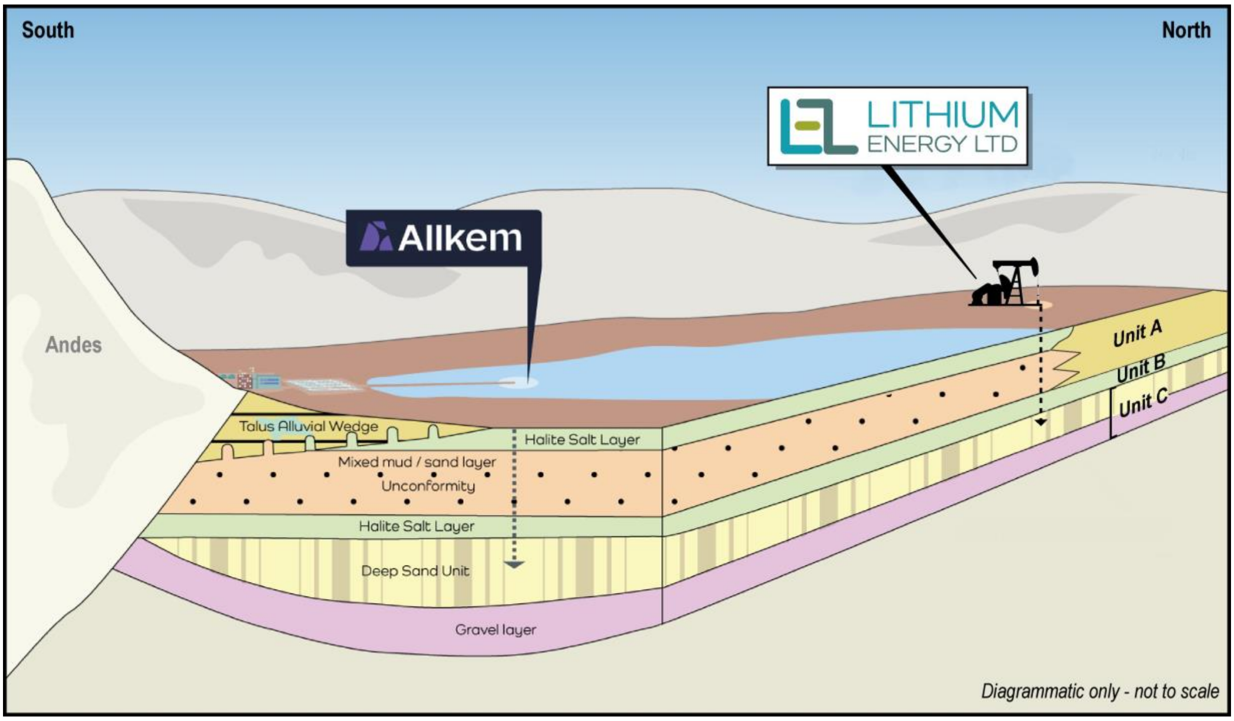

Figure 8: Solaroz Geological Model, showing the Solaroz Project to the north of the Olaroz Salar, with drilling in the Solaroz concessions encountering three geological units (A, B and C) which correlate with other units in the basin found in the Allkem and Lithium Americas concessions

The Company notes that the Rosario Fan Delta at the northern end of the Olaroz Salar, and over which the Payo 1 and Payo 2 concessions are situated (refer Figures 2 and 6), potentially overlies part of the interpreted channel where high porosity sediments were deposited by the Rosario River, with subsequent saturation of these sediments with brine migrating from the then salar surface. A number of Gravity and AMT surveys conducted by Allkem were analysed, some of which were undertaken over or closely adjacent to the Solaroz concessions. These support the interpretation of brine hosted in coarse sediments under the Rosario Delta. The AMT modelling at the Olaroz North AMT Line shows a thickening wedge of resistive material underlain by a conductive layer (interpreted to be conductive brine), whilst the thickening wedge of resistive material above it comprises more recent Rosario sediments, which host brackish water at shallow depths.

The geological model was developed used the lithology data of the 5 holes drilled on the Solaroz concessions to date. Refer also to the lithology and stratigraphy in Figure 12 (for SOZDD001), Figure 13 (for SOZDD002), Figure 7 (for SOZDD003), Figure 14 (for SOZDD004) and Figure 15 (for SOZDD005).

The three layers referred to above were defined using a combination of intersections in the drill holes and the interpretation of the extensive TEM and passive seismic surveys over the Solaroz concessions.

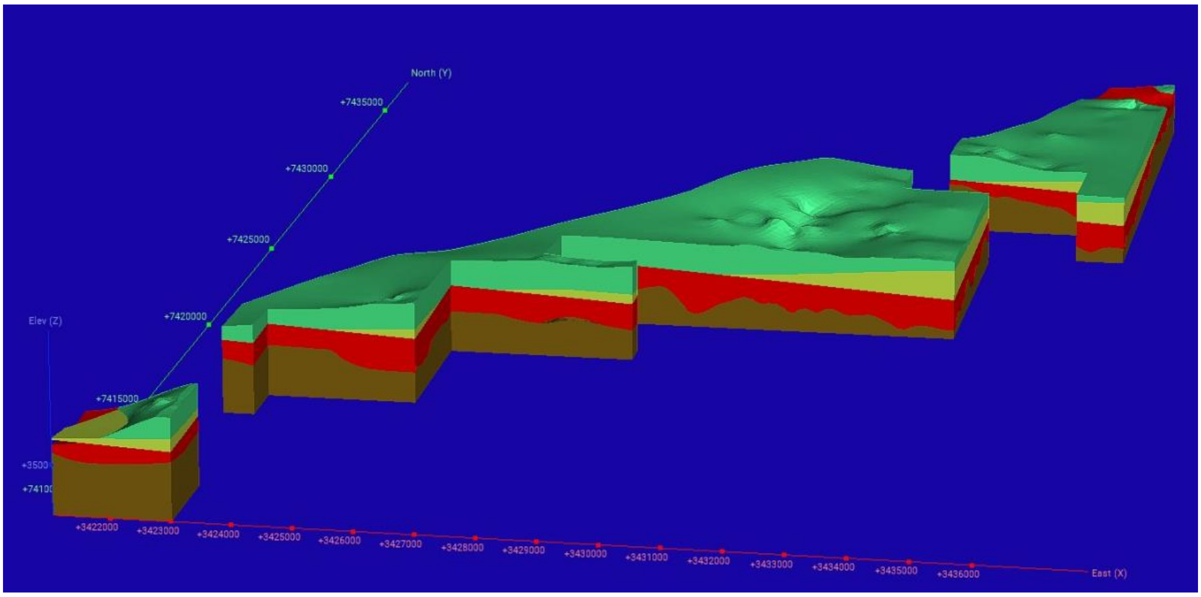

Figure 9: Solaroz Geological Model (with x2 vertical exaggeration) showing Unit A (green), Unit B (yellow) and Unit C (red) over the bedrock (brown)

Unit A is a sandy gravelly layer that extends from the surface to the top of the halite and is only partially saturated in brine, with the water table present in this unit and brackish water becoming progressively more concentrated with depth. Unit B is the halitic layer, which is compact but includes intervals of sand. Unit C is the lower sandy-gravel layer below the halite, which contains fragments of the Ordovician bedrock.

Unit A is present in all 5 holes drilled to date with a relatively uniform thickness. Unit B is present in 4 holes, thickest in well SOZDD003, wedging out towards the west. The deeper clay unit in SOZDD001 is interpreted to be a lateral equivalent of the halite unit (present in only 3 holes) due to lateral facies changes and is included within Unit B. In SOZDD002, the halite layer completely disappears against the bedrock high, which occurs in the centre of the Central Block of concessions.

Resource Estimate Inputs

Brine samples were taken with a nominal spacing of 18-24 metres over the number of drill holes used for resource estimation. Individual single and double brine packer sample have been used as inputs for the resource estimation, with single packer samples the primary source of information. This is considered acceptable, given the level of information available in the Olaroz Salar, the drill spacing and the lithological and brine concentration continuity between drill holes. Brine samples were not composited, given the paucity of data and spacing between individual samples.

Specific Yield data collected from BMR downhole geophysical logging was analysed by drill hole and unit and values above 30% and below 1% Specific Yield were removed (due to concern about their representativity)before data was averaged by unit across the three holes with specific yield data. Analysis of the BMR data provided an average for Unit A of 8.4 to 10.6% and Unit C of 6.8 to 9%. However, because two of the three holes that are the source of specific yield data are located close to the contact of the alluvial gravels with the Marginal (mixed evaporite) Zone of the salar, it is considered the average Specific Yield is likely to be higher than the average of the three holes where all data has been received to date. Consequently a value of 13% has been used for the averaged porosity for Unit A and 11.5% for Unit C. Unit C is present in all hole, except in SOZDD002, where the only layer present in the model is Unit A, overlying the Ordovician bedrock.

To define the base and the top of the model, and the distribution of brine, the geophysical data available in the Project were used. The top of the model was defined with TEM geophysics and was defined where the change from resistive to conductive (<1 ohm m) zones occurs. The base of the model was delimited by the passive seismic geophysical data, considering this method defines deeper more competent rock interpreted as the bedrock (and coinciding with this unit in SOZDD002). Unit C is bounded below by the top of the bedrock.

The lateral limits of the model were assigned by the Solaroz concessions, except on the western side of the model, where they are delimited by the interpreted termination of concentrated brine, based on the TEM data.

Limited information is available for the halite of Unit B, from laboratory analysis, averaging 3% in SOZDD001, where the halite unit is interpreted to thin laterally, with deposition of a clay sequence as a lateral equivalent of the halite. Clay is known to have a low specific yield, based on the results of BMR and laboratory analyses in many other salt lakes. Therefore, a 4% Specific Yield value has been applied across the halite+/-sand unit and the clay equivalent unit for the resource estimate, which is consistent with other measurements in the Olaroz Salar (Flow Solutions, 2019). Future drilling will assist to reduce uncertainty regarding the Specific Yield of this unit.

The thickness of the individual lithological units was defined by the geophysical logs, geological logging from the diamond cores and the geophysical profiles measured in the Project area.

Mineral Resource Estimation Methodology

Estimation of a brine related JORC Mineral Resource involves the definition of the following parameters:

(a) The spatial distribution of the host sediments (the geological model and aquifer distribution, defined by geophysics and drilling);

(b) The external limits (geological or property boundaries) of the resource area;

(c) The distribution of specific yield values (defined by downhole geophysics and laboratory values) within the (three) major lithological units;

(d) The distribution of elements in the brine (defined by chemical analysis of brine samples from packer sampling in drill holes); and

(e) The top of the brine body. This is because unlike on the physical salar, the brine in the alluvial fans does not begin at surface, but begins part way through the upper sand and gravel sequence, beneath brackish water. The western extent of the brine body has been defined based on the TEM geophysics, with a decrease in the conductivity of the interpreted brine unit providing the limit.

The lithium contained in the mineral resource is based on a combination of the aquifer volume, the specific yield (the portion of the aquifer volume filled by potentially extractable brine) and the concentration of lithium dissolved in the brine.

The lithological units in the Solaroz concessions are a layered sequence of sediments that can be correlated across the Central Block and southern concession and which are expected to extend into the Northern Block, where drilling has not yet been conducted. More permeable sand and gravel units provide relatively higher flows.

The lateral extent of the mineral resource is defined between the Solaroz concession boundaries with Allkem and the western extent of the brine body, as defined by the 2 ohm metre western limit in the TEM lines. The TEM lines show the brine becomes progressively less conductive (and hence less concentrated), extending to the west. The resource area covers 44.13 km^2 (4,413 ha) in the Central Block and 3.64 km^2 (364ha) in the southern Mario Angel concession, for a combined total of 47.77 km^2 (4,777 ha). Brine extends from the top of the brine body, below the upper brackish sequence, to the base of the unconsolidated sediments above Tertiary or Ordovician bedrock.

Because the bedrock has been interpreted in only two of the five holes drilled to date, the resource estimate is continued to the interpreted base of the unconsolidated sediments with these units corresponding reasonably with the interpreted depth in the passive seismic survey.

The three-dimensional distributions of the different hydrostratigraphic units were defined using Leapfrog software, with units based on geological and geophysical logging observations and correlated between resource drillholes.

BMR downhole geophysics was used to provide specific yield data for the resource estimate, with the average porosity applied to the sediment volume defined in the block model. The BMR data was compared with laboratory test results for the available results from physical properties, and provides a more data intensive data set than the laboratory porosity samples.

The distribution of lithium was estimated from packer interval sampling data, assigned to the intervals from the packer sample from the top of the brine body to the base of the unconsolidated sediments. Brine samples were nominally spaced at 18 to 24 metre intervals, but actual sampling depended on conditions of the holes. Double packer samples were collected during sampling up the hole, upon reaching total hole depth. Comparison of results shows there is a good correlation with simple packer samples collected during drilling of the hole.

Three models were made with different estimators to evaluate the performance in this environment, where lithium grades are interpreted to decrease towards the north and west in the Solaroz concessions, with the top of the brine unit becoming progressively deeper in these directions. Kriging, nearest neighbour and the Radial Basis Function (RBF), which is the signature estimator of the Leapfrog software, were evaluated.

After evaluating the results it was decided to use the RBF model for estimation of lithium, since it better represents the distribution of chemistry outside the salar environment, with the curved shape of the estimator algorithm. The resource model estimation is bounded by the limit of the Solaroz concessions, the western extent of the brine, the upper brine surface, defined from TEM geophysics and the base of the unconsolidated sediments defined by the passive seismic survey.

The search ellipse used for estimation was horizontal, with lateral and vertical aspects of 8:4:1, aligned in a NNE orientation. This anisotropic isotropic search ellipse was used and estimation was contoured in 50 mg/l intervals for presentation.

Because porosity information was only available for three holes it was not estimated spatially. The results of the BMR profiles of each hole were evaluated and extreme high and low values removed. The results were applied once the resource volume and lithium concentration were determined. The results from the BMR data showed a reasonable correlation with the laboratory data, when some outliers (potentially related to sample disturbance) were removed.

The resource estimate was undertaken using Leapfrog software. The block model was constructed with 200 by 200 metre blocks, with 10 metre vertical extent (Figure 10).

The block model results were compared with composite and original drill hole data at the drill hole locations, to check the estimation reasonably reflects the original drill hole data. Data was considered to adequately reflect the original data.

Mineral Resource Classification

As prescribed in paragraph 21 of the 2012 Edition of the 'Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves' (the **JORC Code**):

- *An 'Inferred Mineral Resource' is that part of a Mineral Resource for which quantity and grade (or quality) are estimated on the basis of limited geological evidence and sampling. Geological evidence is sufficient to imply but not verify geological and grade (or quality) continuity. It is based on exploration, sampling and testing information gathered through appropriate techniques from locations such as outcrops, trenches, pits, workings and drill holes.*
- *An Inferred Mineral Resource has a lower level of confidence than that applying to an Indicated Mineral Resource and must not be converted to an Ore Reserve. It is reasonably expected that the majority of Inferred Mineral Resources could be upgraded to Indicated Mineral Resources with continued exploration.*

This maiden Mineral Resource Estimate (**MRE**) for Solaroz (refer Table 5) has been classified as an Inferred Mineral Resource, given the relatively limited drilling and sampling conducted to date. Additional drilling is expected to result in an upgraded mineral resource classification in the future.

No internal cut-off Lithium concentration has been applied to the MRE, as brine resources are fluid and flow in response to pumping. The MRE is reported at a zero Lithium mg/l cut-off (as at this early stage of the Project's development, the processing technology to be used and the corresponding cut-off grade are not yet clear).

Table 5 : Solaroz JORC Inferred Mineral Resource Estimate

Units	Sediment Volume m³	Specific Yield %	Brine volume m³	Litres	Li mg/l	Li grams	Li Tonnes	LCE Tonnes
A	8,290,800,000	13.0	1,077,804,000	1,077,804,000,000	255	274,840,020,000	275,000	1,460,000
B	1,968,600,000	4.0	78,744,000	78,744,000,000	345	27,166,680,000	27,000	140,000
C	7,584,000,000	11.5	872,160,000	872,160,000,000	374	326,187,840,000	325,000	1,730,000
Total	17,843,400,000	11.4	2,028,708,000	2,028,708,000,000	310	628,194,540,000	627,000	3,330,000

Notes:

(a) This 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_2CO_3) equivalent (LCE) using a conversion factor of 5.323

(c) JORC Code definitions were followed for Mineral Resources

(d) The Competent Person for this MRE is Murray Brooker (MAIG, MIAH)

(e) Totals may differ due to rounding

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

Table 6 : High-Grade Core within Solaroz JORC Inferred Mineral Resource Estimate

Units	Sediment Volume m³	Specific Yield %	Brine volume m³	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
Total	5,803,000,000	10.7	620,440,000	620,440,000,000	405	250,986,656,000	251,000	1,340,000

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 5

(b) Reported at a 350 mg/l Lithium cut-off grade

(c) Refer Notes (a) to (e) of Table 5

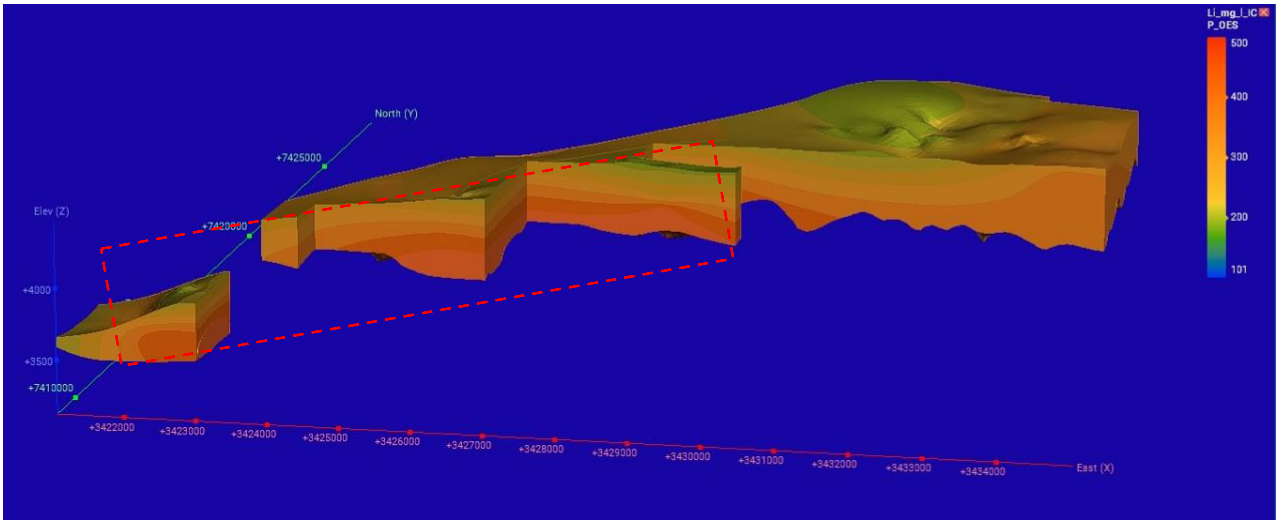

Figure 10: Solaroz Resource Model (with x2 vertical exaggeration) showing the distribution of lithium concentrations through the Central Block and Mario Angel concessions;
Concentrations decrease towards the west and north; Warmer colours are higher lithium concentrations;
Red dashed line shows the area of the high-grade core Mineral Resource referred to in Table 6

Mario Angel Concession - Mineral Resource Estimate

The JORC Inferred MRE for Solaroz (outlined in Table 5) includes the Mario Angel concession, where the first hole (SOZDD001) at Solaroz was drilled[15]. The JORC Inferred MRE for the Mario Angel concession (within the overall MRE for Solaroz) is outlined in Table 7.

Table 7 : Mario Angel Concession - JORC Inferred Mineral Resource Estimate

Units	Sediment Volume m³	Specific Yield %	Brine volume m³	Litres	Li mg/l	Li grams	Li Tonnes	LCE Tonnes
A	285,680,000	13.0	37,138,400	37,138,400,000	337	12,515,640,800	12,500	67,000
B	170,230,000	4.0	6,809,200	6,809,200,000	364	2,478,548,800	2,500	13,000
C	641,550,000	11.5	73,778,250	73,778,250,000	358	26,412,613,500	26,500	140,000
Total	1,097,460,000	10.7	117,725,850	117,725,850,000	**352**	41,406,803,100	41,500	220,000

Notes:

(a) This Mineral Resource Estimate encompasses the Mario Angel concession only

(b) This Mineral Resource Estimate is within (not in addition to) the Mineral Resource Estimate outlined in Table 5

(c) Refer Notes (b) to (f) of Table 5

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15 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

Lithium Energy has entered into an agreement for Xi'an Lanshen New Material Technology Co., Ltd (**Lanshen**) to manufacture and commission a 3,000tpa battery grade lithium carbonate demonstration plant (**Plant**) on the Mario Angel concession, using their proprietary sorbent-based direct lithium extraction (**DLE**) technology. Lanshen will supply, build and initially operate the Plant at its own cost, with Lithium Energy being responsible for securing all necessary approvals and permits and establishing the necessary supporting site infrastructure. Lithium Energy is entitled to purchase the plant once constructed, if it meets pre-agreed acceptance criteria – the value together with detailed plant specifications, technical, engineering and operating parameters (including the final acceptance criteria) will be outlined in a more detailed agreement to be executed before September 2023[16].

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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 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 graphite deposits – 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 Mineral Resources (and the interpretation and reporting of Exploration Results related thereto) in relation to the Solaroz Lithium Brine Project is based on information compiled by Mr Murray Brooker (MAIG, MIAH), a Competent Person who is a Member of the Australian Institute of Geoscientists (**AIG**). Mr Brooker is an employee of Hydrominex Geoscience Pty Ltd, an independent consultant to Lithium Energy Limited. Mr Brooker 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 Brooker 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 Exploration Results (assays of brine samples taken from drillholes SOZDD002, SOZDD004 and SOZDD005, geophysical hole logging results, geophysics programme) 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 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. 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.

16 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) 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:

- 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).

OTHER REFERENCES

Allkem Limited (ASX/TSX:AKE) (formerly Orocobre Limited (ASX:ORE))

- Allkem Limited ASX/TSX Announcement dated 27 March 2023 entitled “Olaroz resource increases 27% to 20.7 million tonnes LCE”.
- Allkem Limited ASX/TSX Announcement dated 4 April 2022 entitled “Olaroz resource upgraded 2.5x to 16.2 million tonnes LCE – Confirmation of strong project economics for Olaroz stage 2”.
- 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”.
- Orocobre Limited ASX/TSX Announcement dated 23 October 2014 entitled “Olaroz Project - Large Exploration Target Defined Beneath Current Resource”.
- 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.

Lithium Americas Corporation (TSX/NYSE:LAC)

- 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.

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.

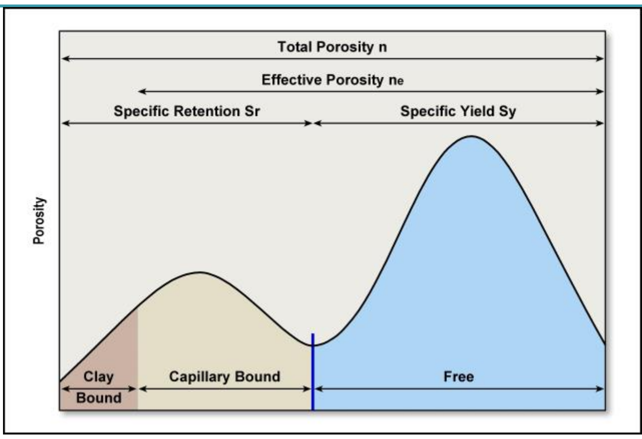
JORC CODE (2012 EDITION) CHECKLIST OF ASSESSMENT AND REPORTING CRITERIA FOR EXPLORATION RESULTS

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). 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. Relevant results of Lithium concentration assayed from brine samples taken at various intervals in drillholes SOZDD001, SOZDD002, SOZDD003, SOZDD004 and SOZDD005 (to date) are presented in Table 9 – the Company has also previously announced field and assay results of samples in respect of these holes. **Geophysics** Sampling was carried out with TROMINO® Passive Seismic equipment. TROMINO® is a small (1 dm^3, < 1 kg) all-in-one instrument, equipped with: • 3 velocimetric channels (adjustable dynamic range) • 3 accelerometric channels • 1 analog channel • GPS receiver • built-in radio transmitter/receiver (for synchronization among different units) • radio triggering system (for MASW surveys and similar) TROMINO® works in the [0.1, 1024] Hz range. Samples were collected for a 20 minute duration at station spacing of

Criteria	Explanation	Comments
		250m and in the second campaign for a 40 minute duration. Transient Electromagnetic Surveys (**TEM**) were carried out by Quantec Geophysics, based out of Mendoza, Argentina: • Transmitter: Geonics Protem. • Receiver: EM37 Receiver, with 3 Component Coil sensor. • Method: Soundings (300m loops) • Station spacing approx. 400m
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 Salara. 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 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.*	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 the lithium is present in brine. Brine will be extracted and the sediments are not the target for lithium extraction.
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.

Criteria	Explanation	Comments
		 *Figure 11: 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. **Geophysics** The TROMINO® Passive Seismic equipment works in the [0.1, 1024] Hz range. The TEM equipment was operated at 2.5Hz and 25 Hz.
Sub-sampling techniques and sample preparation	• *If core, whether cut or sawn and whether quarter, half or all core 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.*	**Drill Samples** 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 and for this reason downhole BMR logging is undertaken. **Geophysics** No sub sampling was carried out as the Passive Seismic method is not invasive and is passive in nature. The TEM data has been bundled into standard bin widths, as is the default with the ProTEM receiver.

Criteria	Explanation	Comments
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 are analysed in a secondary porosity laboratory, as a check on the GSA results. 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. The Company has previously announced field brine sampling results and the analytical results (to date) from the Alex Stewart International Laboratory in respect of drillholes SOZDD001, SOZDD002, SOZDD003, SOZDD004 and SOZDD005 - relevant results of Lithium concentration assayed from brine samples taken at various intervals in these drillholes are presented in Table 9. 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. **Geophysics** Individual Passive Seismic readings are continuous in nature, at up to 1000Hz, and can be statistically processed to optimise the data quality. The TEM is a result of stacking on the individual readings per station. The data quality noted by the field technicians is of a high quality giving confidence in the collected data.
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. **Geophysics** The TROMINO® Passive Seismic equipment is equipped with internal and external GPS and is processed by external consultants proficient in passive seismic data collection and processing. Repeats and cross line correlation have been used to assist in sampling verification and QAQC.
Location of data points	• *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.* • *Specification of the grid system used.* • *Quality and adequacy of*	**Drilling** 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. **Geophysics** The TROMINO® Passive Seismic equipment is equipped with internal and external GPS, and is processed to present the data in POSGAR

Criteria	Explanation	Comments
	topographic control.	Argentine Zone 3 co-ordinates (a local Argentinian Grid format similar to a UTM grid). The TEM equipment was located in the field by GPS, and co-ordinated with the WGS UTM Zone 19S co-ordinate system.
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. **Geophysics** Passive Seismic data spacing is on lines selected nominally perpendicular to known Geology, and at station spacing of 250m. TEM data spacing is on lines selected nominally perpendicular to known Geology, and at station spacing of ~250m.
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. **Geophysics** Passive Seismic data spacing is on lines selected nominally perpendicular to known Geology, and at station spacing of ~250m. TEM data spacing is on lines selected nominally perpendicular to known Geology, and at station spacing of ~250m.
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. **Geophysics** Data collection is stored digitally, and uploaded daily to the external consultant for processing.
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. Drilling is on-going. 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. **Geophysics**

Criteria	Explanation	Comments
		No external audit or review of the data has taken place.

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 2): (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 Allkem Limited (ASX/TSX:AKE) (formerly Orocobre Limited) (**Allkem** or **Orocobre**) and Lithium Americas Corporation (TSX/NYSE:LAC) (**Lithium Americas**). 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". • Allkem 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 40,000 tpa Lithium Carbonate Production at the Cauchari-Olaroz Salars, Jujuy Province, Argentina, prepared for Lithium Americas Corporation, 30 September 2020. • Salfity Geological Consultants Map for Salar de Olaroz

Criteria	Explanation	Comments
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 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. 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*
	    • *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.*
		Details of the collar location, azimuth, depth for Drillhole ID's SOZDD001 to SOZDD005 are reported in Table 8.
		All holes are drilled vertically through the unconsolidated clastic sediments and halite (salt) unit.

Criteria	Explanation	Comments
Data aggregation methods	• *In reporting Exploration results, weighting 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 2 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 SOZDD005, on the Olaroz Salar. Figure 3 shows the location of drillholes SOZDD001 to SOZDD005 within the Solaroz Concessions and highlights of the drilling results (to date). Figure 4 (TEM Line 8) and Figure 5 (corresponding Passive Seismic Line 58) illustrates the results of geophysics undertaken near the location of SOZDD003. Figure 6 shows the Company's (TEM and passive seismic) geophysical lines and Allkem's historical (gravity and AMT) geophysical lines, geophysical images showing depths to basement (bedrock) within parts of the Solaroz concessions, the geology of the Olaroz Salar and the Location of the Solaroz Concessions. Figures 8 and 9 a illustrates the Project's geological model. Figure 10 illustrates the resource model for the mineral resource estimate. 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. Figure 12 shows the geophysical hole logging results and drillhole

Criteria	Explanation	Comments
		lithology stratigraphy for SOZDD001. Figure 13 shows the geophysical hole logging results and drillhole lithology stratigraphy for SOZDD002. Figure 7 shows the geophysical hole logging results and drillhole lithology stratigraphy for SOZDD003. Figure 14 shows the 5 drillhole lithology stratigraphy for SOZDD004 (to date). Figure 15 shows the drillhole lithology stratigraphy for SOZDD005 (to date).
Balanced reporting	• *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.*	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. 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 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. The Company has undertaken its own geophysics programme across all the Solaroz Concessions, comprising: • 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 • 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". 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. 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.

Criteria	Explanation	Comments
		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 "Further Significant Lithium Discovery Extends Mineralisation at Solaroz Lithium Brine Project". 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". The initial (field) results of airlift sampling at the sixth drillhole (SOZDD006, located on the Chico VI concession) have also been previously reported – refer to the Company's ASX Announcement dated 1 June 2023 entitled "Hole 6 Intersects Conductive Brines in Upper Aquifer at Solaroz Lithium Brine Project" (but as this hole is not complete these results have not been included in the resource estimation).
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 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. 6 holes have been drilled to date (with 3 drill rigs currently mobilised on site) - SOZDD001 (on the Mario Angel concession), SOZDD002 (on the Chico V concession), SOZDD003 (on the Chico I concession), SOZDD004 (on the Chico I concession, pending hole completion), SOZDD005 (on the Chico VI concession, pending hole completion) and SOZDD006 (on the Chico VI concession, pending hole completion). 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 Lithium Mineral Resource will be 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

Criteria	Explanation	Comments
		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 is finalising a Scoping Study (being prepared by Hatch) 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). 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 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 continuity both of grade and geology.*	There is a reasonable confidence in the geological model for the Project, with five 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 Allkem and Lithium Americas 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 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 some impact on the contained lithium tonnage, as the specific yield is lower in the halite unit. The specific yield is similar for the upper (Unit A) and lower (Unit C) clastic units. As the porosity characteristics of the halite unit are distinct (and

Criteria	Explanation	Comments
		significantly lower) the resource estimation uses hard boundaries for porosity. 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 44.13 km^2 (4,413 ha) in the Central Block and 3.64 km^2 (364ha) in the southern Mario Angel concession, for a combined total of 47.77 km^2 (4,777 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 in depth to hole SOZDD002, which is further from the salar. Such a deepening with greater depth from the salar is expected and observed in other salt lake basins. 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 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*	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 contaminated samples. 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. The BMR data was reviewed and values above 21% 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. These results were also checked with a second porosity laboratory. 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

Criteria	Explanation	Comments
	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.*	considered. Interpolation of lithium for each block in mg/l used the Leapfrog Radial Basis Function. 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).
Cut-off parameters	• *The basis of the adopted cut-off grade(s) or quality parameters applied.*	No cut-off grade has been applied to the Mineral Resource, as it is not yet clear what processing method will be 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*	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.

Criteria	Explanation	Comments
	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 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 Allkem and Lithium Americas 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 be reported with an explanation of the environmental assumptions made.*	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 Allkem Olaroz and Lithium Americas 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.
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.*	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 and potassium 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 possibly vugs

Criteria	Explanation	Comments
	• *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.*	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 Inferred category, based on the early stage of exploration in the initial drilling programme. Additional drilling and data collection from existing holes will support future reclassification of the Mineral Resource. The Inferred Mineral Resource status reflects the early stage of exploration, with complete laboratory porosity data not yet received for all holes. 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. In the view of the Competent Person, 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 initial 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*	Univariate statistics for global estimation bias, visual inspection against samples on sections and swath plots were evaluate to detect any spatial bias and shows a reasonable agreement between the samples and the estimate.

Criteria	Explanation	Comments
	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.*	

Table 8 - Drillhole Collar Location, Azimuth and Depth for Diamond Core Holes SOZDD001 to SOZDD005

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
SOZDD002	3430878	7423314	3925	90	0	482.5
SOZDD003	3433485	7421712	3910	90	0	590
SOZDD004	3430878	7423314	3905	90	0	787.5
SOZDD005	3433485	7421712	3909	90	0	640

Notes:

(a) SOZDD001 - Drilling was stopped for operational reasons whilst still in lithium brine mineralisation in the Deep Sand Unit, which remains open at depth[17]

(b) SOZDD002 – Drilling was terminated due to unstable drill hole conditions[18]

(c) SOZDD003 – Drilling was terminated due to drill rig limitations; the hole was still in lithium brine mineralisation (hosted in sandstone units and fine gravels); the full depth of lithium mineralisation is yet to determined[19]

(d) SOZDD004 - Hole completion is pending geophysical hole logging[20]

(e) SOZDD005 - Hole completion is pending geophysical hole logging[20]

17 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

18 Refer LEL ASX Announcements dated 27 February 2023: Drilling Continues to Advance at Solaroz Lithium Brine Project and 31 January 2023: Drilling Continues to Encounter Significant Intersections of Highly Conductive Brines at Solaroz Lithium Project

19 Refer LEL ASX Announcement dated 14 March 2023: Further Significant Lithium Discovery Extends Mineralisation at Solaroz Lithium Brine Project

20 Refer LEL ASX Announcements dated 15 May 2023: Further Assays Confirm Significant Lithium Brine Concentrations Across Massive Intersections at Solaroz, 12 May 2023: Massive Intersections of Brine Continue at Solaroz at up to ~780 Metre Depth, 1 May 2023: Massive Intersections of Lithium Rich Brine Confirm World Class Potential of Solaroz Lithium Project and 19 April 2023: Holes 4 and 5 Encounter Significant Intersections of Conductive Brines at Solaroz Lithium Project

Table 9 - Consolidated Results of Relevant Lithium Assays from Brine Samples – SOZDD001, SOZDD002, SOZDD003, SOZDD004, SOZDD005

Hole	Inter-section Samples	Hole Depth Range		Li (mg/l)	Mg (mg/l)	Mg/Li Ratio	Hole	Inter-section Samples	Hole Depth Range		Li (mg/l)	Mg (mg/l)	Mg/Li Ratio
		From (m)	To (m)						From (m)	To (m)			
SOZDD001	1	72.6	74.1	**158**	363	2.3	SOZDD003	16	510	511.2	**76**	158	2.1
SOZDD001	2	75.6	79.4	**101**	226	2.2	SOZDD004	1	51	60	**111**	630	5.7
SOZDD001	3	93.6	97.1	**399**	931	2.3	SOZDD004	2	71	80	**184**	504	2.7
SOZDD001	4	111.6	115.1	**414**	968	2.3	SOZDD004	3	80	100	**223**	528	2.4
SOZDD001	5	129.6	133.1	**416**	962	2.3	SOZDD004	4	90	100	**224**	530	2.4
SOZDD001	6	147.6	153.3	**270**	650	2.4	SOZDD004	5	111	120	**298**	566	1.9
SOZDD001	7	227	229	**555**	1201	2.2	SOZDD004	6	121	144	**220**	442	2.0
SOZDD001	8	268	274	**517**	1074	2.1	SOZDD004	7	145	168	**215**	423	2.0
SOZDD001	9	275	293	**485**	739	1.5	SOZDD004	8	168	192	**215**	443	2.1
SOZDD002	1	185	186	**297**	641	2.2	SOZDD004	9	193	216	**288**	593	2.1
SOZDD002	2	186	204	**199**	438	2.2	SOZDD004	10	217	240	**302**	624	2.1
SOZDD002	3	186	204	**194**	429	2.1	SOZDD004	11	241	264.5	**288**	593	2.1
SOZDD002	4	189	229	**254**	545	1.9	SOZDD004	12	265	287.5	**239**	494	2.1
SOZDD002	5	189	229	**136**	279	2.2	SOZDD004	13	288	312	**174**	363	2.1
SOZDD002	6	191	193	**127**	279	2.1	SOZDD004	14	313	336	**154**	334	2.2
SOZDD002	7	197.7	198	**246**	429	2.0	SOZDD004	15	336	360	**424**	627	1.5
SOZDD002	8	205	329	**36**	196	1.9	SOZDD004	16	360	384	**508**	655	1.3
SOZDD002	9	206.5	223	**242**	526	1.9	SOZDD004	17	384.5	407.5	**500**	638	1.3
SOZDD002	10	208.55	208.85	**386**	629	1.9	SOZDD004	18	408.5	431.5	**461**	623	1.4
SOZDD002	11	210.4	210.7	**312**	630	2.0	SOZDD004	19	432	456.5	**474**	668	1.4
SOZDD002	12	210.7	211	**243**	488	2.0	SOZDD004	20	456	480	**456**	719	1.6
SOZDD002	13	211	229	**256**	524	2.0	SOZDD004	21	480	504	**482**	790	1.6
SOZDD002	14	222.7	223	**24**	64	2.7	SOZDD004	22	552.5	575.5	**493**	709	1.4
SOZDD002	15	226	228	**149**	306	2.1	SOZDD004	23	600.5	623.5	**482**	751	1.6
SOZDD002	16	240.7	241	**259**	528	2.0	SOZDD004	24	624	647.5	**501**	786	1.6
SOZDD002	17	240.7	241	**261**	530	2.0	SOZDD005	1	86.5	110.5	**243**	473	2.0
SOZDD002	18	258.7	259	**164**	322	2.0	SOZDD005	2	110	134.5	**295**	540	1.8
SOZDD002	19	266	268	**162**	313	1.9	SOZDD005	29DP	111.3	112.9	**315**	580	1.8
SOZDD002	20	281	283	**162**	308	1.9	SOZDD005	3	134	158.5	**305**	562	1.8
SOZDD002	21	284	301	**125**	278	2.2	SOZDD005	4	158.5	182.5	**301**	561	1.9
SOZDD002	22	301	320	**295**	614	2.1	SOZDD005	5	182.5	206.5	**345**	654	1.9
SOZDD002	23	320	343	**339**	664	2.0	SOZDD005	6	230.5	254.5	**421**	771	1.8
SOZDD002	24	320	343	**339**	666	2.0	SOZDD005	7	254	278	**433**	709	1.6
SOZDD002	25	320	343	**323**	639	2.0	SOZDD005	8	278.5	302.5	**439**	718	1.6
SOZDD002	26	366	368	**266**	475	1.8	SOZDD005	9	302.5	326	**408**	775	1.9
SOZDD002	27	368	391	**294**	564	1.9	SOZDD005	10	326.5	350.5	**356**	684	1.9
SOZDD002	28	392	415	**294**	556	1.9	SOZDD005	11	350.5	374	**430**	712	1.7
SOZDD002	29	416	439	**325**	609	1.9	SOZDD005	12	374.5	398.5	**468**	740	1.6
SOZDD003	1	158	176	**227**	479	2.1	SOZDD005	27DP	375.5	376.5	**505**	749	1.5
SOZDD003	2	177.9	194	**299**	587	2.0	SOZDD005	13	398	422	**479**	684	1.4
SOZDD003	3	195.5	212	**342**	607	1.8	SOZDD005	14	422	446	**475**	755	1.6
SOZDD003	4	215.5	230	**389**	821	2.1	SOZDD005	15	446	470.5	**480**	850	1.8
SOZDD003	5	231.5	248	**397**	866	2.2	SOZDD005	26DP	447.3	448.9	**508**	827	1.6
SOZDD003	6	246.5	266	**390**	863	2.2	SOZDD005	16	470	494	**472**	905	1.9
SOZDD003	7	266.5	284.5	**387**	780	2.0	SOZDD005	17	494.5	518.5	**490**	703	1.4
SOZDD003	8	458.5	488.5	**59**	133	2.3	SOZDD005	18	518.5	542.5	**495**	717	1.5
SOZDD003	9	518.5	539.5	**249**	481	1.9	SOZDD005	25DP	519.3	520.9	**501**	783	1.6
SOZDD003	10	539.5	557.5	**349**	659	1.9	SOZDD005	19	542.5	566.5	**492**	746	1.5
SOZDD003	11	557.5	575.5	**350**	651	1.9	SOZDD005	20	566.5	602.5	**486**	885	1.8
SOZDD003	12	557	589	**383**	704	1,83	SOZDD005	21	590.5	614.5	**507**	928	1.8
SOZDD003	13	570	571.2	**372**	696	1.9	SOZDD005	24DP	595.3	596.9	**504**	794	1.6
SOZDD003	14	550	551.2	**395**	728	1.8	SOZDD005	23	614	638	**496**	798	1.6
SOZDD003	15	530	531.2	**359**	671	1.9							

Notes:

(a) A pre-collar has been cemented in place to a drill hole depth of ~50 to 60 metres. Drilling uses HQ rods, followed by HWT casing, to isolate fresh/brackish water in the upper part of the hole and to prevent dilution with the sampling and assaying of the deeper brines.

(b) Brine samples which evidence suggests were diluted and are considered to be contaminated samples have been excluded from the Mineral Resource Estimate.

(c) Double packer (DP) sampling upon hole completion has been used to obtain check samples to compare with original primary packer samples. Results have generally shown reasonable repeatability between the sampling rounds.

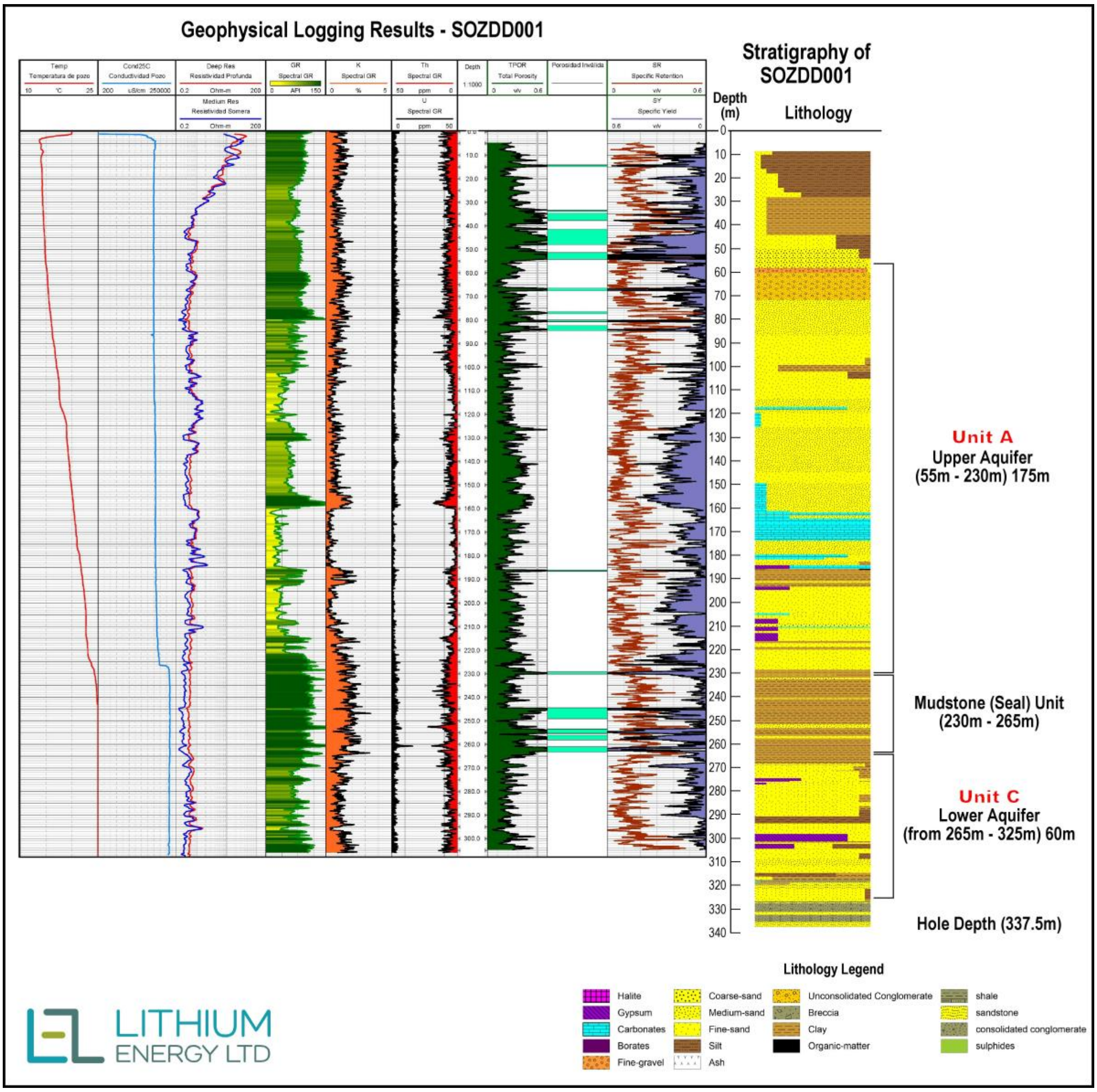


Figure 12: Geophysical Hole Logging Results and Drillhole Stratigraphy for SOZDD001, showing the downhole geophysical profiles and the geological units

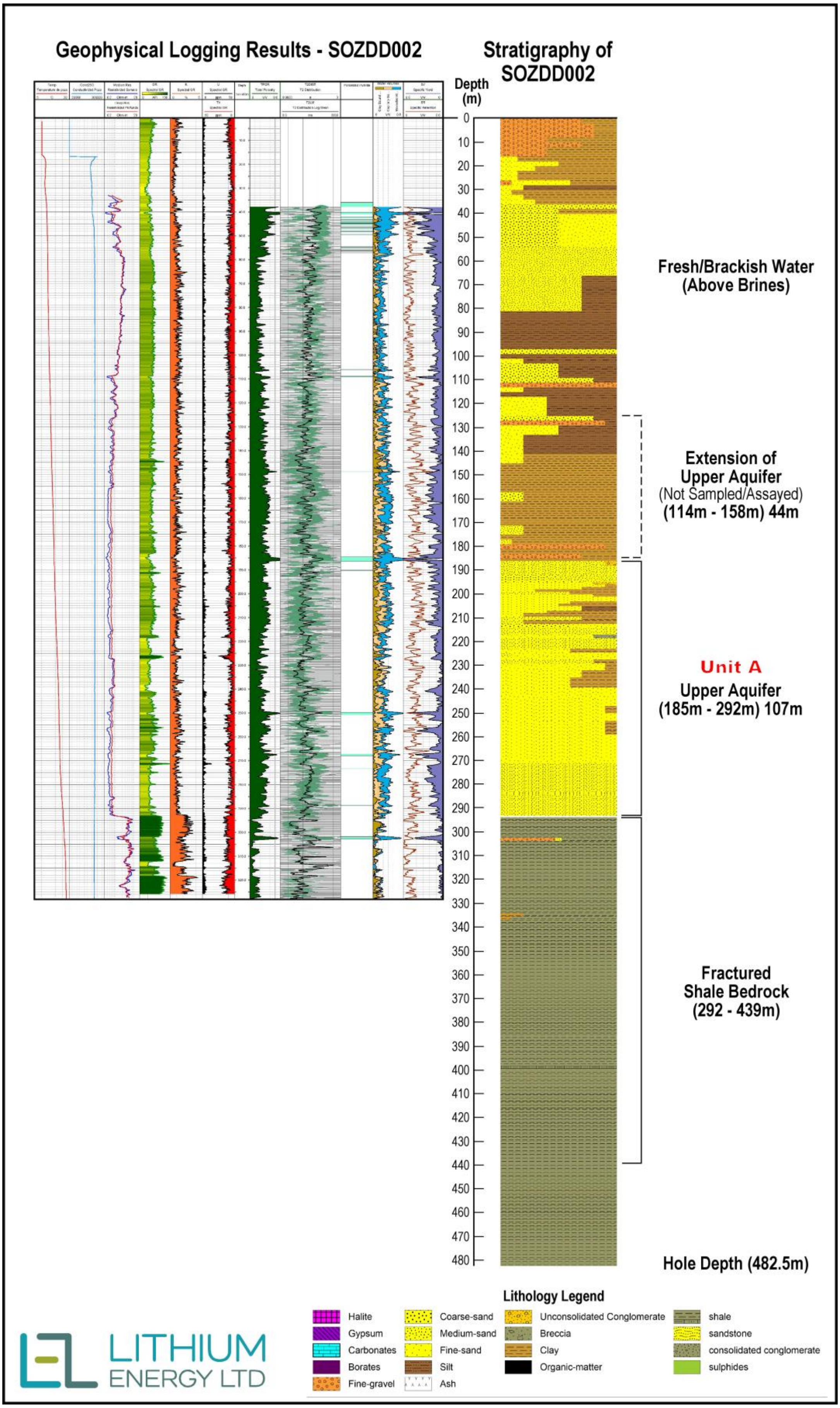


Figure 13: Geophysical Hole Logging Results and Drillhole Stratigraphy for SOZDD002, showing the downhole geophysical profiles and the geological unit

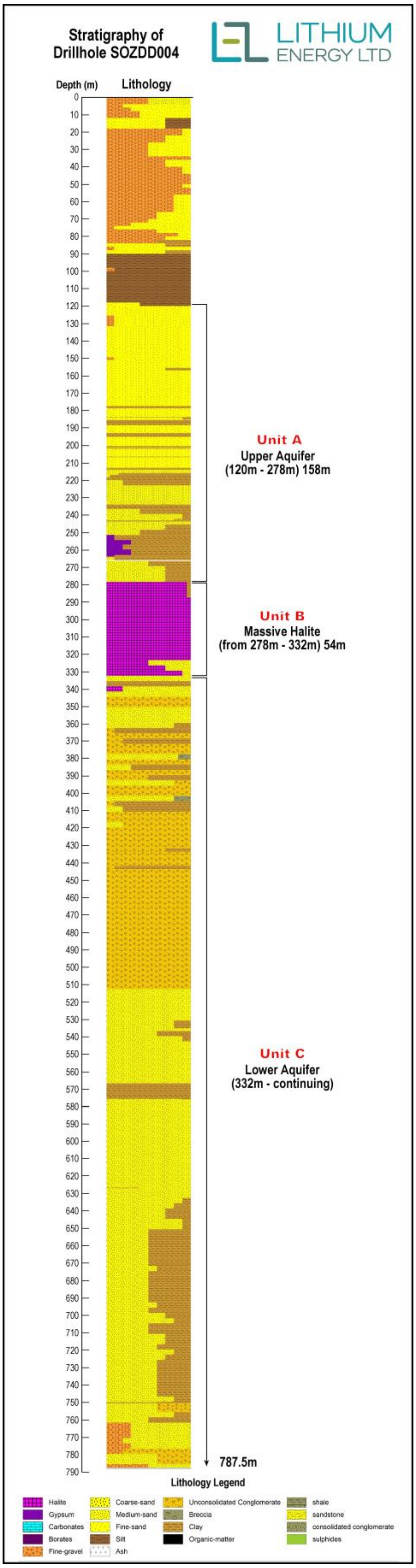


Figure 14: Drillhole Stratigraphy for SOZDD004, showing the geological units

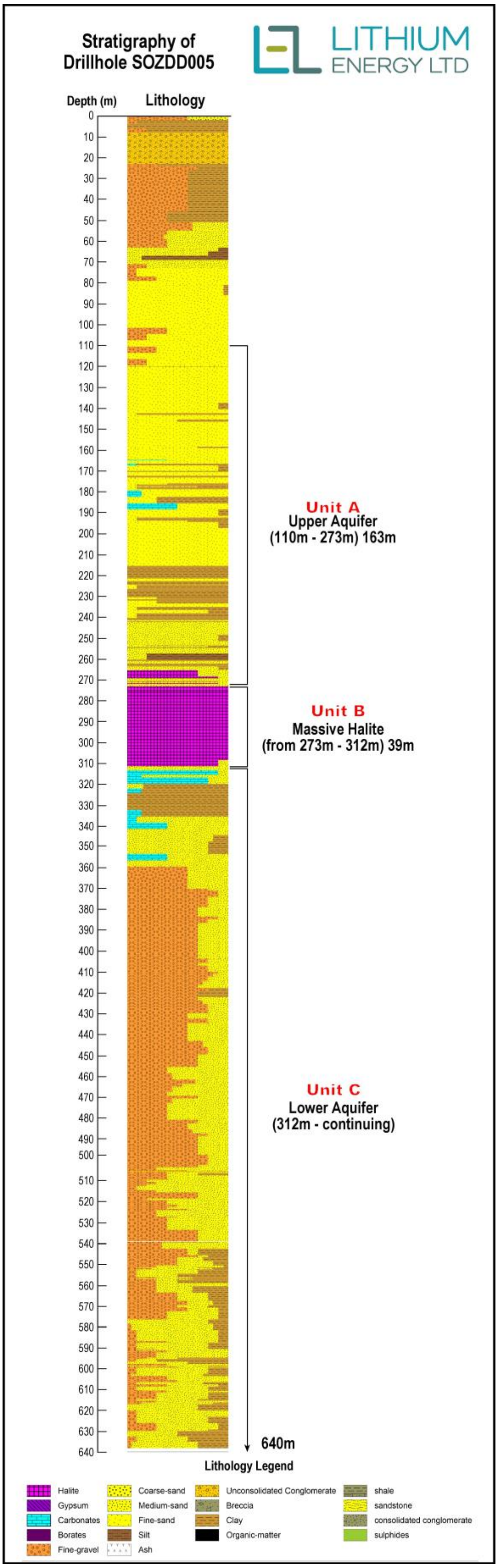


Figure 15: Drillhole Stratigraphy for SOZDD005, showing the geological units