ASX Announcement

31 October 2023

LITHIUM ENERGY LTD

ASX:LEL

Scoping Study Highlights Solaroz Potential as a Large Scale, Long Life, High Margin Lithium Project

Highlights

Exceptionally Strong Project Economics

- Project production capacity of up to 40,000 tpa battery grade Lithium Carbonate Equivalent (LCE) with conventional evaporation pond processing.
- Pre-tax Net Present Value (**NPV_{10}**) of **US$3.9Bn** (**~A$6.2Bn**).
- Internal Rate of Return (**IRR**) of **44%.**
- **Payback period of 2 years.**
- Average life of mine (LOM) EBITDA of **US$730 million** per year.
- Forecast **Cash Operating cost of US$4,611/t LCE** in lowest quartile of global industry LCE cost curve.
- Project economics based upon a LOM assumed price of US$25,000/t for lithium carbonate (Li_2CO_3).

Low Technical Risk

- Project will follow current operations of Allkem and Lithium Argentina using conventional evaporation ponds for processing brines from the Salar de Olaroz (**Olaroz Salar**) to produce LCE.
- Grade and chemistry of Solaroz brines from the same Olaroz Salar are suitable for conventional evaporation pond processing.
- Design and engineering component of Study completed by Hatch.

Low Development Risk

- Located in Jujuy Province, north-west Argentina – an established lithium-producing province.
- Adjacent to major lithium producers, Allkem's (ASX/TSX:AKE) Olaroz Lithium Facility and Lithium Argentina's (TSX:LAAC) recently completed Cauchari-Olaroz Lithium Facility.
- Key utilities, including grid power and gas in close proximity to the site.
- Large industrial water aquifers intersected by drilling on the Solaroz concessions.
- Nearby infrastructure including major transport links to the port of Antofagasta in Chile and Buenos Aries in Argentina.

Significant Upside Opportunity

- Project economics calculated on 1.3Mt LCE out of Total JORC Indicated and Inferred Mineral Resources of 3.3Mt LCE, with further potential for resource expansion.
- Direct Lithium Extraction (**DLE**) production methods subject to ongoing evaluation, which could further improve Project capacity, economics and sustainability.

Potential Project Partners

- Continued engagement (including completed site visits) with multiple, major third parties active in the EV battery sector for strategic partnership or investment to develop Solaroz.

Strong Sustainability Focus

- Renewable solar power facility connected to nearby grid with pending regional expansion development.
- Future studies to focus on minimising water usage and carbon footprint.

Lithium Market

- Lithium market is in deficit with increasing demand from Electric Vehicles (EVs) estimated to require 5.3Mt of LCE by 2030, compared to the ~0.9Mt LCE production in operation today[1].

1 Source: Benchmark Minerals

Cautionary Statements: The Scoping Study referred to in this Announcement has been undertaken primarily to ascertain whether a business case can be made for proceeding to a more definitive study on the viability of the Project. It is a preliminary technical and economic study of the potential viability of the Project. It is based on low level technical and economic assessments that are not sufficient to support the estimation of ore reserves. Further evaluation work and appropriate studies are required before the Company will be in a position to estimate any ore reserves or to provide any assurance of an economic development case.

The Scoping Study is based on the material assumptions outlined below. These include assumptions about the availability of funding. While the Company considers all of the material assumptions to be based on reasonable grounds, there is no certainty that they will prove to be correct or that the range of outcomes indicated by the Scoping Study will be achieved. To achieve the range of outcomes indicated in the Scoping Study, funding in the order of US$700 million (for a 20ktpa LCE 36 year LOM Plant) to $1,300 Million (for a 40ktpa LCE 19 year LOM Plant) (both inclusive of 30% contingencies in respect of capital costs) will likely be required. Investors should note that there is no certainty that the Company will be able to raise that amount of funding when needed. It is also possible that such funding may only be available on terms that may be dilutive to or otherwise affect the value of Company's existing shares.

It is also possible that the Company could pursue other 'value realisation' strategies such as a sale, partial sale or joint venture of the Project. If it does, this could materially reduce the Company's proportionate ownership of the Project. Given the uncertainties involved, investors should not make any investment decisions based solely on the results of the Scoping Study.

The Mineral Resources underpinning the production targets in the Scoping Study have been prepared by a Competent Person in accordance with the requirements of the JORC Code (2012). The production targets in the Scoping Study are underpinned (94%) by Indicated Mineral Resources of 1,185kt LCE and (6%) by Inferred Mineral Resources of 73kt LCE, being a Total Indicated and Inferred Mineral Resource of 1,258kT LCE at an average grade of 400 mg/l Lithium (at a 320mg/l Li cut-off grade). There is a low level of geological confidence associated with inferred mineral resources and there is no certainty that further exploration work will result in the determination of indicated mineral resources or that the production target itself will be realised.

Lithium Energy Limited (ASX:LEL) (Lithium Energy or the Company) is pleased to announce the outstanding results of the Scoping Study (Study) for the Company's flagship Solaroz Lithium Brine Project in Argentina (Solaroz or Project), located next to Allkem's Olaroz Lithium Facility in the Salar de Olaroz basin (the Olaroz Salar) in the heart of South America's world renowned 'Lithium Triangle'.

The Study is supported by the recently upgraded Solaroz Mineral Resource Estimate (**MRE**) of 3.3Mt Lithium Carbonate Equivalent (**LCE**), comprising an **Indicated Mineral Resource** of **2.36Mt LCE** and an **Inferred Mineral Resource of 0.9Mt LCE** (at a zero Li mg/l cut-off grade)[2]. Within the 3.3Mt LCE Total Mineral Resource, there is a **high-grade core of 1.3Mt of LCE** with an average concentration of **400 mg/l Lithium** (at a 320 mg/l Li cut-off grade). This high-grade core underpins the Study outcomes, being **~36 years of LCE production at 20ktpa or ~19 years production at 40ktpa**.

Solaroz is located on the Olaroz Salar adjacent to the Allkem Limited[3] (ASX:AKE) (**Allkem**) Olaroz Lithium Facility, with FY22 production of 13ktpa and targeted ramp-up in production to 42.5ktpa LCE[4]. Also neighbouring the Project is the recently commissioned Lithium Argentina Corporation[5] (TSX:LAAC) (**Lithium Argentina**) Cauchari-Olaroz Facility, targeting an annual production capacity of 40ktpa LCE[6].

The Company engaged global multidisciplinary project management, engineering and professional services consultancy group, Hatch, to undertake the design and engineering components of the Study. Hatch has substantial experience in lithium engineering processing of brines, including projects located on salars in Argentina.

Economic modelling was undertaken by the Company using the Study outputs together with the Company's own forecast of long-term LCE pricing and other economic assumptions.

The successful completion of the Study is a key milestone for Lithium Energy to progress the Project with a number of financiers and potential partners, where the Company has received unsolicited interest and has ongoing discussions underway. A number of these parties have already completed site visits.

The outstanding results of the Study demonstrate that Solaroz has the potential to be a world class project, supported by exceptional margins, environmental credentials, product quality and located in a salar hosting established lithium brine producers.

Key Scoping Study Outcomes

	20ktpa	40ktpa
Pre-Tax NPV_{10} (USD)	$2.3bn	$3.9bn
Pre Tax IRR	41%	44%
Mine Life	36 Years	19 years
Capital Payback Period (Post Tax)	2.5 Years	2 Years
Annual EBITDA	$378m	$730m
CAPEX (excl 30% contingency)	$542m	$987m

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

3 Allkem has announced a merger with lithium processing technology company, Livent Corporation (NYSE:LTHM)

4 Source: Allkem ASX announcements

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

6 Source: Lithium Argentina public releases

Lithium Energy Limited Executive Chair, William Johnson commented:

" We are extremely pleased with the results of the Scoping Study, confirming the Solaroz Lithium Brine Project as a high-margin project with significant upside, positioned to become a material producer of battery-grade lithium into the accelerating demand curve of the net zero energy transition.

The strong Study economics confirm the Board's confidence in the quality of this asset, located in a proven region of Argentina which hosts several significant lithium brine deposits, including the neighbouring Allkem Olaroz Facility which has been in production since 2015.

The Study also presents significant upside opportunities to improve both scale and economics. The exploration upside potential for Lithium Energy to upgrade the mineral resource estimate in size and classification further strengthens the scale of the operation.

What is particularly pleasing to the Board is that the Study shows that Solaroz brine grades are suitable for producing a battery grade LCE product by conventional evaporation pond technology, which gives us an immediate low risk go-forward case to produce from the same salar next door to Allkem.

Furthermore, the Study highlights the potential for application of new technologies such as DLE to have the potential to reduce both capital and operating costs, and the Company will continue to evaluate their economic and environmental implications .

With the forecast exponential growth in demand for critical minerals, supported by global government supply chain and diversification incentives, Lithium Energy continues to receive strong unsolicited interest from potential investors and financiers in the Project.

The case for development of Solaroz is clear:

- Solaroz contains a meaningful mineral resource with the potential to support long term lithium carbonate production of 20 to 40ktpa.
- Located in a lithium-producing province, with nearby infrastructure and amenable weather conditions for simple pond evaporation, as shown by the neighbouring Allkem and Lithium Argentina operations.
- Solid project economics support fast-track project development and highlight the significant opportunity for potential partners.

As the global economy decarbonises, the supply of lithium remains of great importance to fulfil electrification demand. We are proud to demonstrate such a strong project at Solaroz and are excited to move forward with its next stage of development. Lithium Energy is committed to building a project with world class environmental credentials, to satisfy increasing global scrutiny on sustainable supply chains."

Key Study Highlights

Study Parameters[1]	Units	20,000 tpa	40,000 tpa
		LCE	LCE
Lithium Carbonate (Li_2CO_3) Production	**Tonnes/year**	20,000	40,000
Project Life Estimate[2]	**Years**	36	19
Total Capital Cost (CAPEX)[3]	**US$M**	542	987
Direct Capital Cost[4]	**US$M**	372	714
Average Annual Operating Cost (OPEX)	**US$/tonne**	4,985	4,611
Average Li_2CO_3 Selling Price[5]	**US$/tonne**	25,000	25,000
Average Annual EBITDA	**US$M**	378	730
Pre-Tax Net Present Value (NPV10[6]) [7]	**US$M**	2,290	3,879
Pre-Tax Internal Rate of Return (IRR)	**%**	41	44
After-Tax Net Present Value (NPV_{10})[8]	**US$M**	1,319	2,200
After-Tax and Royalties IRR	**%**	29	32
Payback Period (After-Tax)	**Years**	2.5	2.0

Notes:
(1) Presented in 100% terms (Lithium Energy own 90% of Solaroz)
(2) Including ramp-up
(3) Excludes 30% contingencies
(4) Excludes contingencies, indirect costs and Owner's costs
(5) Assumed to be constant over life of mine (LOM)
(6) NPV is calculated using a 10% discount rate
(7) Includes royalties
(8) Includes working capital and depreciation

Refer to Financials section for full economic assumptions under the Study.

Project Location

Lithium Energy's Solaroz Lithium Brine Project is located within South America's 'Lithium Triangle' and comprises the 8 concessions located in the Jujuy Province in northern Argentina, approximately 230 kilometres north-west of the provincial capital city of Jujuy and lie at an altitude of approximately 3,900 metres. The Solaroz concessions total approximately 12,000 hectares located in three groups (refer Figure 1):

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

The Solaroz concessions are accessed by good quality road infrastructure. The Project's location is supported by favourable conditions in terms of both the operating environment and local infrastructure. Very limited rainfall combined with dry, windy conditions create a favourable environment for the brine-evaporation process. The area is serviced with key utilities and access roads, which include a gas pipeline which intersects the Solaroz concessions and local high voltage electricity supply. Three major international seaports, Buenos Aires in Argentina, Antofagasta and Iquique in Chile are accessible by road from the Project area.

The Solaroz concessions are on the same Olaroz Salar as concessions held by Allkem and Lithium Argentina and are directly adjacent to the producing Olaroz Lithium Facility (operated by Allkem in a joint venture with Tokyo Stock Exchange listed Toyota Tsusho Corporation (TYO:8015)) producing lithium carbonate from lithium-rich brine extracted from bore fields drilled on the salar (refer Figure 1). Lithium Argentina's Cauchari-Olaroz Facility (in a joint venture with Ganfeng Lithium) has recently commenced production of lithium carbonate on the neighbouring Salar de Cauchari (refer Figure 6).

The Olaroz Salar is one of a number of land locked salt lakes located high up in the Argentinian Puna Region. This basin is bounded by a pair of north-south reverse faults that thrust Andes Paleozoic sediment west to east as a result of the Pacific Plate colliding with the South American Plate. This results in the west side of the basin being continually pushed higher which replenishes the sediment fill within the basin.

Argentina holds the world's biggest lithium resources (as brine deposits) and is currently the world's third largest producer of lithium, after Australia and Chile. One of the key attractions of lithium brine projects in Argentina is their low cost of production compared to hard rock lithium projects – Argentinian (and Chilean) lithium brine projects are well recognised as being among the lowest on the lithium carbonate production cost curve. The principal reason for the low operating cost is that lithium rich brine, once pumped to the surface (typically from aquifers which are several hundred metres below the surface) is then transferred to large evaporation ponds, which rely on free energy from the sun and local atmospheric conditions to concentrate the brine. There are generally no environmentally damaging tailings or toxic by-products.

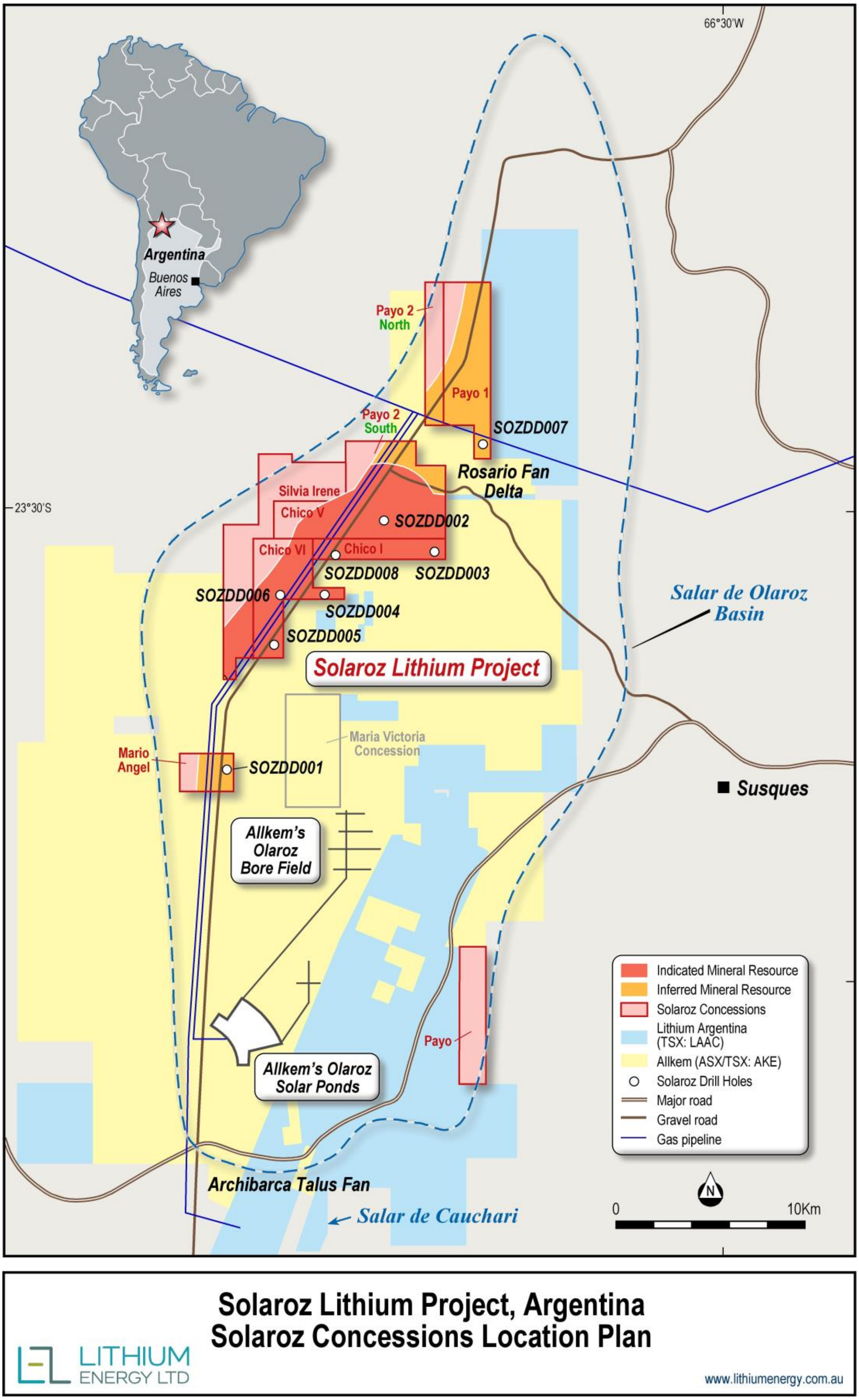

Figure 1: Mineral Resource Areas within Solaroz Concessions (and Drillhole Locations) in Olaroz Salar (Adjacent to Allkem and Lithium Argentina Concessions)

Geology and Mineralisation

The Solaroz concessions lie over the same Olaroz Salar from which Allkem is extracting and processing lithium rich brine for sale as lithium carbonate since 2015. The Solaroz concessions follow and overlap into the visible white halite salt layer of the 'Salar' (salt lake) and extend as substantial flat areas with 1 - 2 metres of elevation to the visible halite area, providing a favourable location and topography for the construction of evaporation ponds (refer Figures 6 and 7).

Lithium Energy has completed 8 diamond drill holes (SOZDD001 to SOZDD008) and one rotary hole (SOZDD04R, which was a twin of diamond hole SOZDD004) to date, for a total of ~5,087 metres). There are 6 diamond holes in the Central Block (Chico I, IV and V concessions) and one hole each in the southern Mario Angel concession the Payo 1 concession (in the Northern Block). This initial resource definition drilling programme was designed to target areas identified as having thick sequences of brine in the Transient Electromagnetic geophysics (**TEM**), which has been confirmed by the drilling. Down-hole geophysics has also been conducted on relevant holes, providing detailed characterisation of the lithologies encountered in the holes. The Geological Model for Solaroz was derived from the Company's extensive geophysical surveys and historical third-party exploration.

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 four of the drill holes, which is correlated with the extensive salt unit identified by Allkem and Lithium Argentina extending through the Olaroz Salar and Salar de Cauchari salt lakes. 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.

Lithium Energy's interpretation of the Olaroz Salar basin architecture is a three layer model (refer Figure 2) overlying the Tertiary and Ordovician bedrock. 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 Argentina's 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. Beneath Unit C, the Tertiary bedrock displays a moderate specific yield and brine samples have slightly higher lithium concentrations than the overlying Unit C.

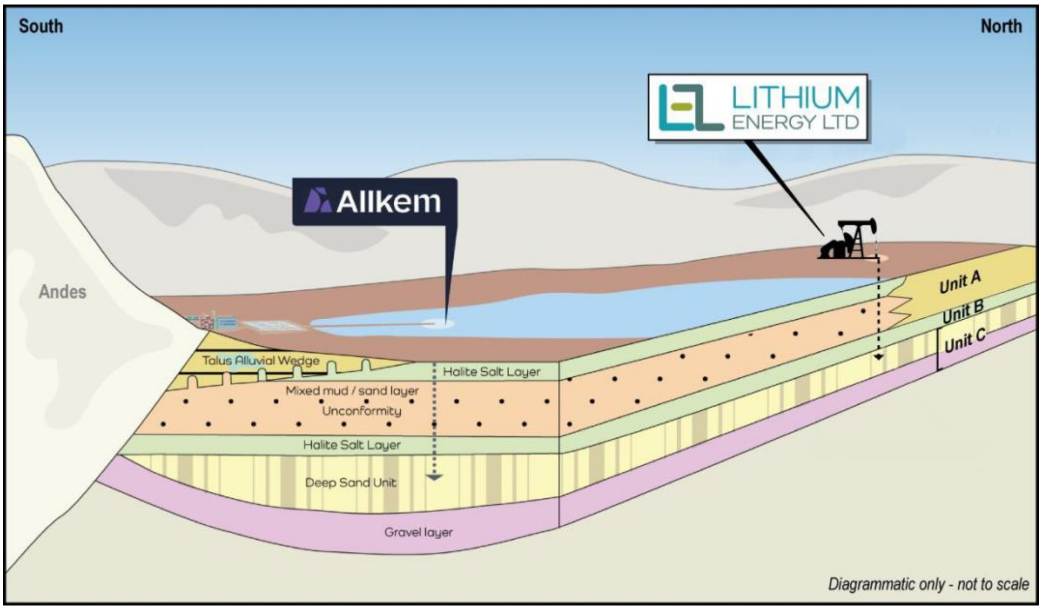

Figure 2: Solaroz Geological Model, showing the Solaroz Project to the north of the Olaroz Salar, with drilling in the Solaroz concessions encountering three geological units (A, B and C) which correlate with other units in the basin found in the Allkem and Lithium Argentina concessions

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[7]) and **lithium concentrations of up to 594 mg/l** (in Hole 6 - SOZDD006[8]) have been encountered along a ~15 kilometre zone between SOZDD001 and SOZDD003.

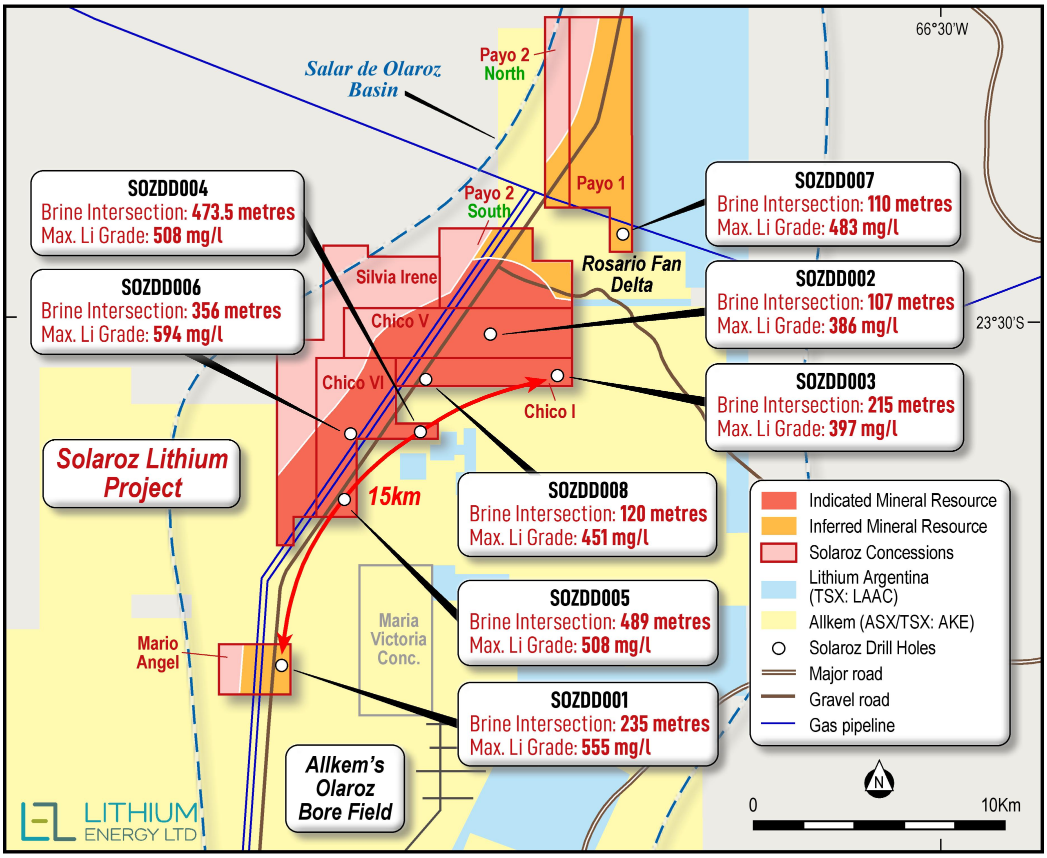

Figure 3: Location of Drillholes Across 15km Zone Between Solaroz Drillholes Where Massive Intersections of Conductive Brines Where High Lithium Concentrations Encountered

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

8 Refer LEL ASX Announcements dated 27 July 2023: Highest Lithium Concentrations Encountered at Solaroz Lithium Project in Hole 6 and 29 August 2023: Lithium Mineralisation Encountered in Northern Solaroz Concession

Project Overview

The Solaroz concessions are held by an Argentinian subsidiary, Solaroz S.A., which is owned 90% by Lithium Energy and 10% by Hanaq Argentina S.A.

Lithium Energy has undertaken extensive geophysics (passive seismic tomography surveys and TEM) campaigns across the Solaroz concessions and recently completed an initial resource definition drilling programme.

The initial maiden JORC Mineral Resource for Solaroz (defined in June 2023[9]) was recently upgraded[10] to a JORC Indicated and Inferred Mineral Resource Estimate (MRE) of 3.3Mt LCE, including 2.4Mt LCE in the Indicated Resource category. Within this MRE, is a high-grade core of 1.3Mt LCE with an average concentration of 400 mg/l Lithium at a 320 mg/l Lithium cut-off grade (refer Table 2).

The design and engineering components of the Study was undertaken by Hatch, a global multidisciplinary project management, engineering and professional services consultancy with extensive experience in critical minerals. Hatch has substantial experience in design and development of lithium processing of brines, including projects located on salars in Argentina.

The Study conducted modelling, engineering and estimating to assess the suitability of the Solaroz brine grades and chemistry for processing by either evaporation processing or DLE technologies to produce a battery-grade lithium carbonate. In the Study, two process configurations were conceptually reviewed for the initial concentration and recovery of lithium as part of the overall flowsheets to nominally produce 20ktpa of LCE:

(1) A conventional brine solar evaporation pond process design - as implemented by Solaroz neighbours in the Olaroz Salar, Allkem's Olaroz Lithium Facility and Lithium Argentina's Cauchari-Olaroz Facility, and others; and

(2) Direct Lithium Extraction (DLE) options, which replaces the use of evaporation ponds - DLE consists of several chemical processes that can bypass the need for large evaporation ponds for the production of lithium from brines.

The Study assumed brine feed with an average grade of 400 mg/L Lithium, consistent with the high-grade core of 1.3Mt LCE Indicated and Inferred Mineral Resource at Solaroz (refer Table 2).

The simulation and modelling results based on the Solaroz lithium brine chemistry and grade support the production of lithium carbonate using conventional evaporation pond technology. The Company considers that this conventional evaporation scenario currently presents the lowest risk pathway to production when considering permits and approvals in Argentina, as well as being a proven processing methodology for processing brine from the same salar as Solaroz, currently being used by the neighbouring operations of Allkem and Lithium Argentina.

DLE processing technology that was assessed in the Study shows the potential to offer a range of potential benefits when compared to evaporation pond processing. These potential benefits include:

- Lower capital and operating costs;
- Increased lithium recovery;
- Faster pathway to production;
- Improved sustainability; and
- Reduced physical footprint.

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

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

Given the relatively low technical risk and likely easier pathway for permitting and approvals, conventional evaporation pond technology is currently considered by the Company as the 'base case' go-forward development option for Solaroz. However, given the potential benefits presented by DLE, Lithium Energy will continue to evaluate DLE in parallel as an alternative or complimentary production methodology, before making a final determination of the technical development pathway for Solaroz.

Mineral Resource Estimate

The initial maiden JORC Mineral Resource for Solaroz (defined in June 2023[9]) was recently upgraded in October 2023[10] to:

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

Table 1 : Upgraded Total JORC Indicated and Inferred Mineral Resource

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

Notes:

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

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

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

(d) Totals may differ due to rounding

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

(f) The Indicated and Inferred Mineral Resource areas within the Solaroz concessions (and drill hole locations) are shown in Figure 1.

(g) Total Specific Yields are weighted averages

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

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

Notes:

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

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

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

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

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

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

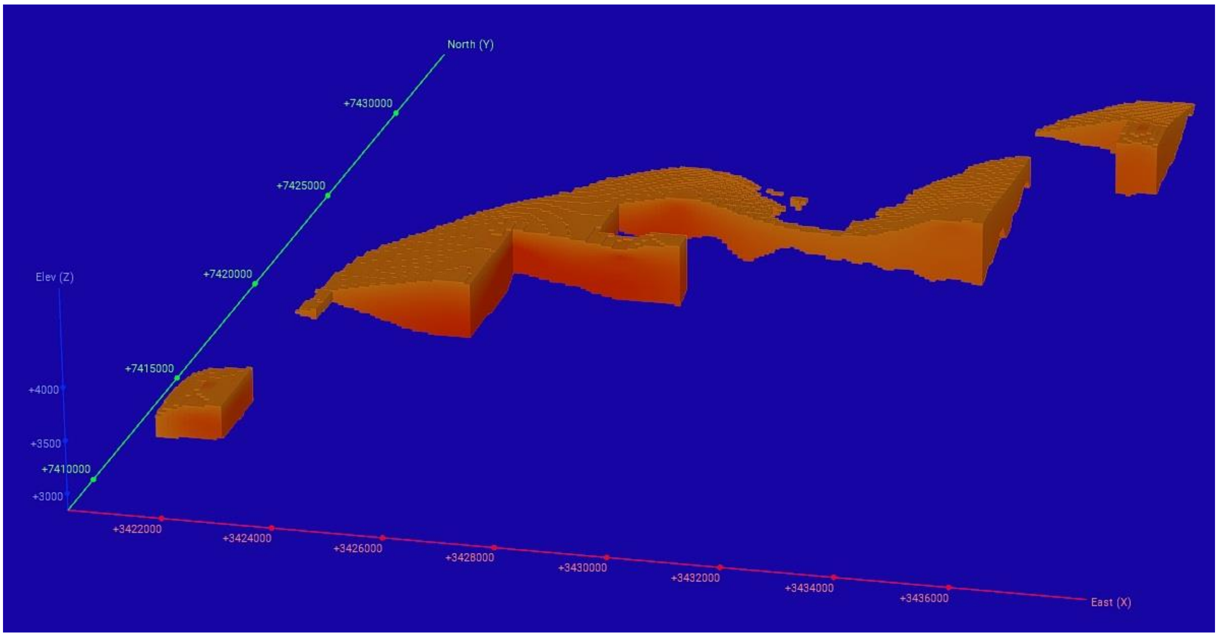

Figure 4: Solaroz Resource Model (x2 vertical exaggeration) showing the distribution of lithium concentrations through the Central Block with concentrations > 320 mg/l (averaged overall lithium concentration of 400 mg/l Li);
Warmer colours are higher lithium concentrations;
This corresponds to the high-grade core of the Mineral Resource referred to in Table 2.

Conventional Evaporation Pond Processing Option

Summary

The results of the brine chemistry and pond modelling conducted in the Study indicate that the Solaroz concessions have the capacity to host pond areas to support up to 40ktpa LCE production. Two separate evaporation pond locations were identified each with sufficient areas to support up to 20ktpa LCE production (refer Figures 6 and 7).

This proposed pond configuration supports dual 20ktpa processing trains, providing the opportunity to assess a staged approach to production development and the opportunity to generate early cashflow from 20ktpa LCE production before potentially expanding to 40ktpa LCE production.

A system of wells will provide the brine to the evaporation pond system. In the evaporation ponds, the various salts will be precipitated by either concentration of the liquor or by adding lime. The output of the ponds is a concentrated Lithium-rich brine, with a small quantity of deleterious minerals that will be removed in the battery grade lithium carbonate production processing plant.

The process flowsheet configuration was based on a typical LCE production process as operated by Allkem and Lithium Argentina on the Olaroz Salar/Salar de Cauchari brines.

A summary of the capital (CAPEX) and operating (OPEX) costs for a 20ktpa LCE and 40ktpa LCE conventional pond production operation are shown in Tables 3 and 4 respectively.

Table 3: Summary of Capital Cost Estimates for Evaporation Pond Processing LCE Plants

Capital Costs (US$M)	20 ktpa LCE	40 ktpa LCE
Total direct costs	$371.6	$714.2
Total indirect costs	$142.1	$243.6
Sub-Total Direct and Indirect CAPEX	**$513.7**	**$958.1**
Owner's Costs	$28.5	$28.5
Contingency (30%)	$162.7	$296.0
TOTAL CAPEX	**$704.9**	**$1,282.6**
	$35,246 / t LCE	*$32,052 / t LCE*

Table 4: Summary of Operating Cost Estimates for Evaporation Pond Processing LCE Plants

Operating Costs (US$M per year)(1)	20 ktpa LCE	40 ktpa LCE
Well costs	$0.9	$1.8
Labour	$9.9	$11.0
Reagents	$55.0	$109.9
Utilities	$11.5	$22.3
Others (consumables, maintenance, waste disposal, transport, general and admin)	$20.5	$39.4
TOTAL OPEX	**$99.7**	**$184.4**
	$4,985 / t LCE	*$4,611 / t LCE*

Notes:

(1) On an FOB (Free on Board), Buenos Aires, basis

Further work will be conducted in future study phases to determine the optimal capacity and staging strategy to achieve the maximum production and value for the Project. The optimisation will consider the trade-off of lowest initial stage capital cost versus final capital cost, the benefit of having redundancy in multiple processing lines versus the lower capital cost of a single larger scale processing line.

Utilities

A key aspect to cost effective operations is the access to a ready supply of power. A natural gas pipeline with surplus capacity runs adjacent to the Solaroz concessions and is used by both Allkem and Lithium Argentina to provide gas for heating, steam and power generation.

In addition, 100km south of the Project location, a 380MW solar farm ties into the Argentinian national grid. This grid supplies power to the Lithium Argentina operations.

Industrial water is also an important input into the processing flowsheet. The Company notes substantial aquifers hosting fresh and industrial water have been intersected by drilling on the Solaroz concessions (to date), which may be suitable as potential sources of water for processing.

Flowsheet Configuration Development

The Solaroz flowsheet for the conventional evaporation ponds is based on the standard configurations which are similar to the commercially proven Olaroz (Allkem) and Cauchari-Olaroz (Lithium Argentina) operations. Assumptions based on the Olaroz Salar location and literature data were used to refine the flowsheet.

The Solaroz feed composition used for the Study is shown in Table 5, based on representative brine assay data.

Table 5: Brine Feed composition

Parameter	Unit	Value
SO4	mg/L	12,070
Cl	mg/L	163,719
B	mg/L	477
Ba	mg/L	0.2
Ca	mg/L	692
Fe	mg/L	6
K	mg/L	3,111
Li	mg/L	400
Mg	mg/L	855
Mn	mg/L	0.5
Na	mg/L	104,684
Sr	mg/L	20
pH	-	6.6

The key process steps are shown in the process schematic summary in Figure 5.

The conventional process configuration is comprised of three main areas:

- Lithium concentration increase and initial impurity rejection via evaporation ponds – pre-liming ponds, liming and then post-liming ponds.
- Impurity removal – for removal of boron, sulphates, calcium and magnesium.
- Lithium production – via lithium carbonate precipitation and bicarbonate purification.

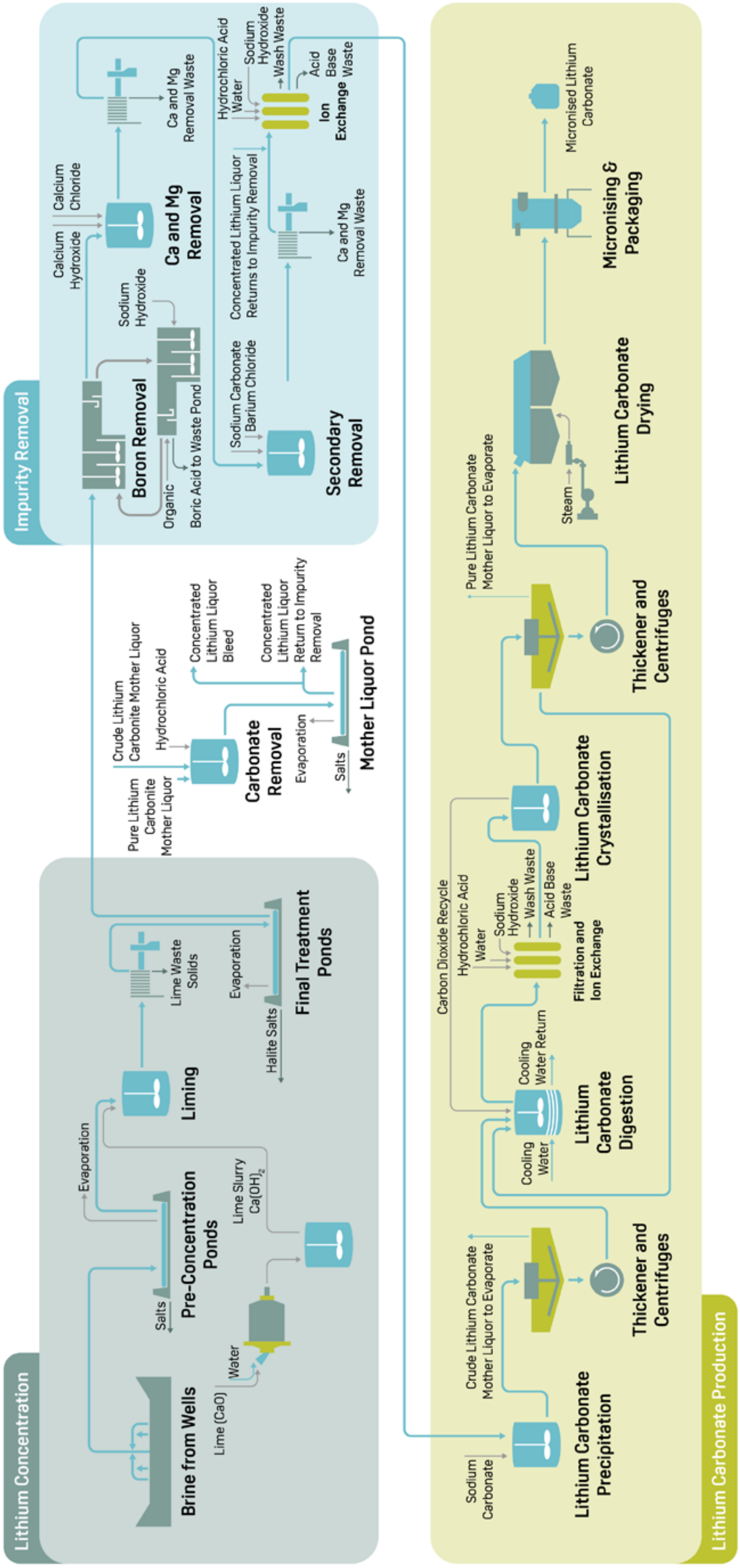

Figure 5: Schematic of the conventional process configuration to produce battery-grade lithium carbonate

Evaporation Ponds

Evaporation ponds use the natural elements of wind and sun to evaporate the water from the salar brine. In these ponds, the various mineral salts precipitate as the brine concentration changes. Lime is added to facilitate the precipitation of potassium salts. The overall function of the ponds is to remove high concentration of sodium and potassium salts and to produce a concentrated lithium liquor suitable for treatment in the lithium carbonate production plant.

Evaporation Principles

The calculation methodology is based on estimating the site evaporation rate and calculating the specific evaporation rates in each pond, considering:

- The brine composition in each pond and the impact on brine activity which impacts evaporation rate from each pond;
- The solids predicted to form in each pond based on the brine composition as water is evaporated; and
- Allowances for seepage and entrainment.

The assumed site evaporation rate was based on reference brine and water evaporation rates from projects in the region with a range of similar climatic cand site elevation conditions. Weather data was sourced from the nearby (Lithium Argentina) Minera Exar station.

Evaporation Pond Design

The pond performance and size was verified using OLI electrolyte thermodynamic modelling and confirmed using the UNIQUAC based modelling. From the evaporation pond modelling, it was estimated that an area of 11.2km^2 (1,120 Ha) would be required to support 20ktpa of lithium carbonate production.

The ponds would be lined and would be built with raised earthworks walls and to take advantage of the topographic slopes on the Solaroz concessions to reduce the requirement to pump brine between pond segmentation.

Two site options within the Solaroz concession boundaries were identified, shown in Figures 6 and 7, as preferred locations for an 11.2km^2 pond area. These locations take advantage of the flat nature and the natural slope of the areas, which will reduce the earthworks and pumping requirements of the proposed operations. The pond layout includes evaporation, salt deposition and mother liquor ponds.

Having two separate locations for evaporation ponds each with the capacity to support 20ktpa of lithium carbonate production, highlights the potential for Solaroz to support up to 40ktpa of lithium carbonate production using conventional evaporation ponds.

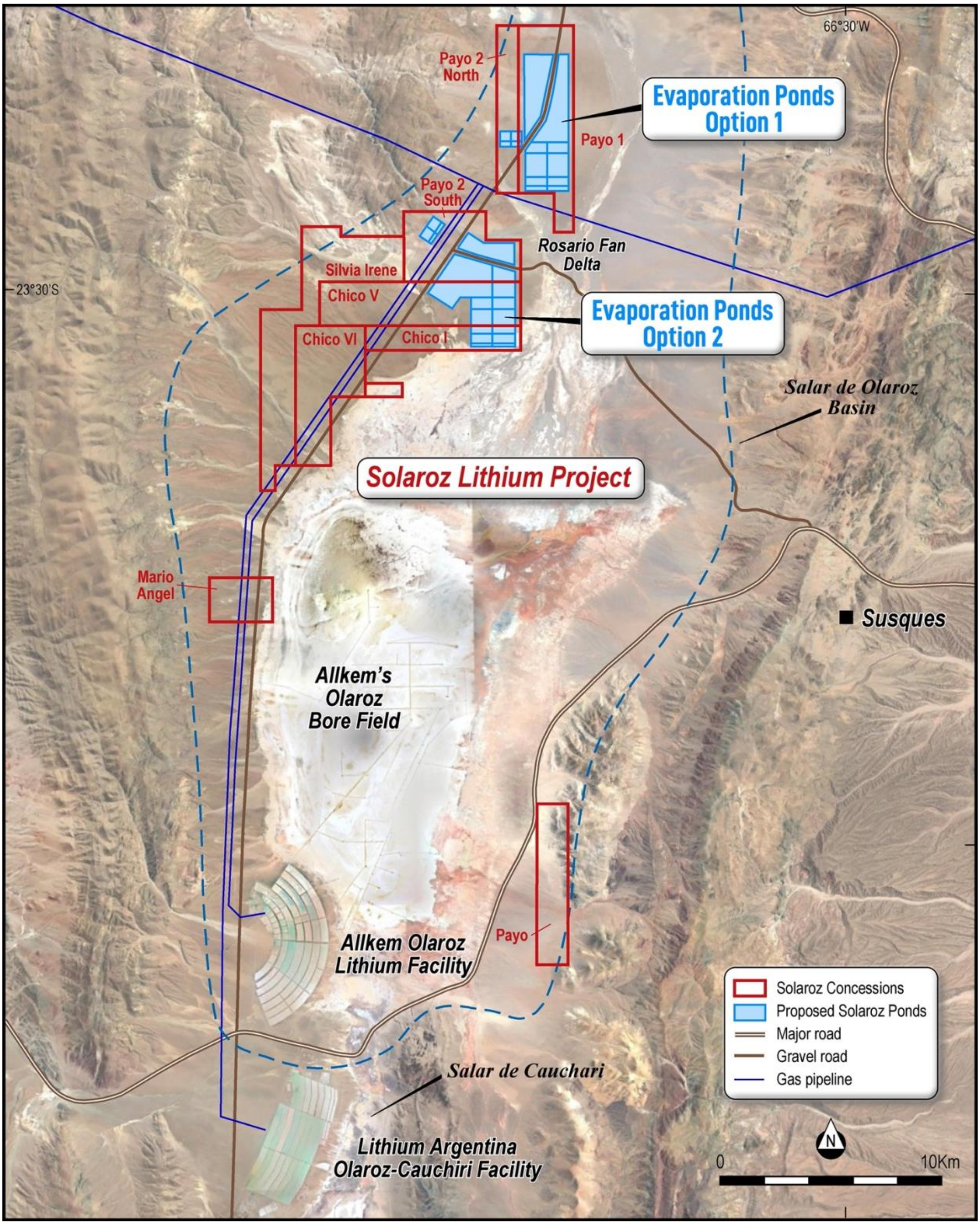

Figure 6: Potential Solar Evaporation Pond Locations (two options shown) within the Solaroz Concessions; and proximity to Allkem and Lithium Argentina Lithium Evaporation Ponds and LCE Processing Facilities

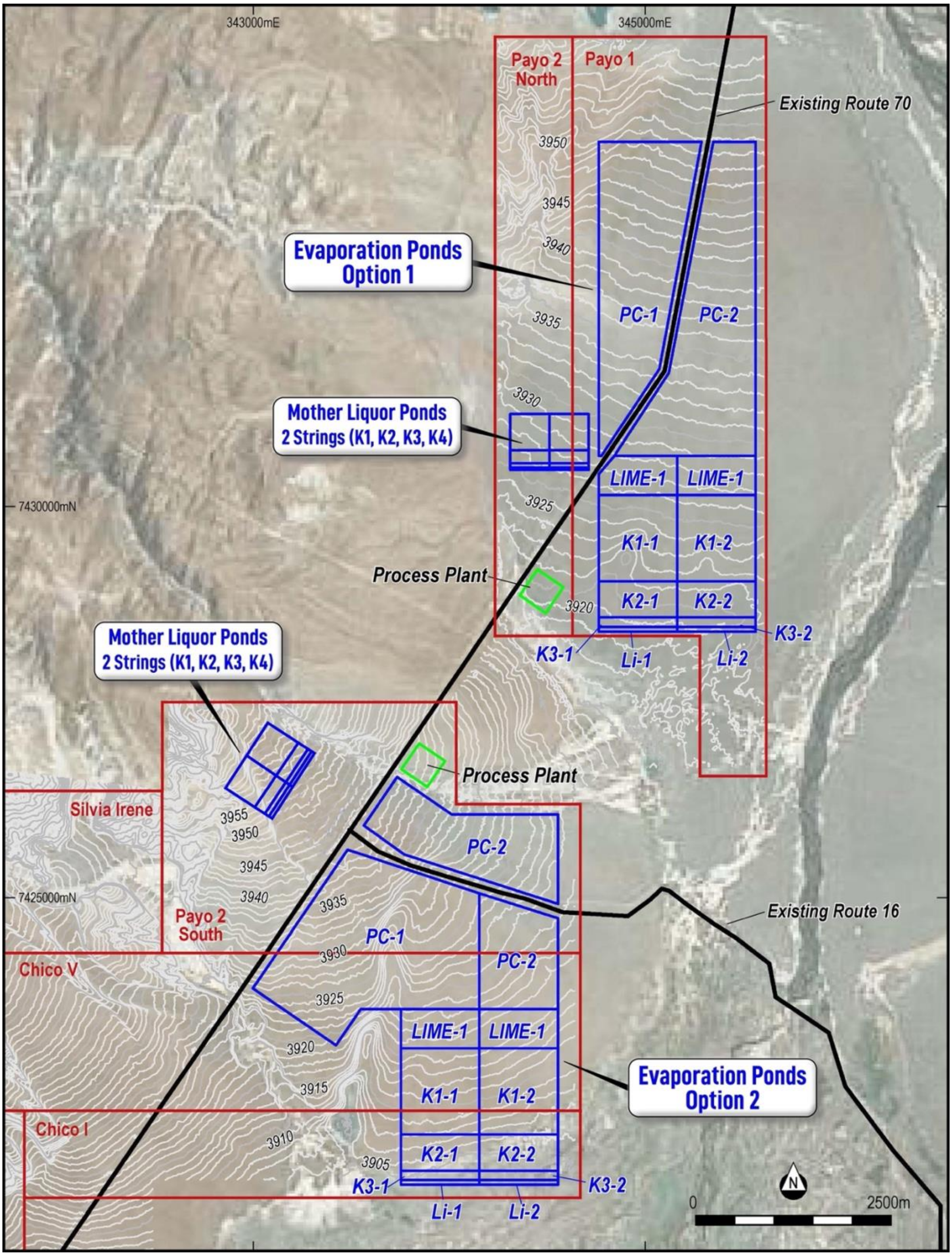

Figure 7: Close-Up of Potential Solar Evaporation Pond Locations (two options shown) within Solaroz concessions

In the evaporation pond configurations shown in Figures 6 and 7, the raw brine is pumped from the various production wells to the largest ponds (PC1/PC2). As the brine evaporates, brines progress from these ponds (PC1/PC2) through to the final smaller lithium ponds (L1/L2). The present location and arrangement would support gravity overflow from each pond to the next, however this will be optimised in future design phases based on site geotechnical data and the trade- off of pond construction versus pumping costs.

Salt Stockpile

The evaporation ponds require periodic cleaning to remove the deposited salts. This is required to maintain the pond volumes and stabilise the pond brine concentrations. The deposited salts, which are typically Sodium Chloride ($NaCl$) and Potassium Chloride (KCl) are stored within the Solaroz concessions in stockpiles. The stockpile areas will be lined to prevent salt infiltration on the concession location and will be built using mobile equipment to progressively stack the salts. The capital cost estimate includes a two year stockpile development cost allowance.

Lithium Carbonate Production

In the evaporation pond system, the lithium content is upgraded from nominally 0.04% Li to 0.93% Li. In addition a large quantity of the occurring salts are removed by deposition. The concentrated brine is pumped to the processing plant for further salt removal and finally to produce lithium carbonate.

Boron Removal

The brine is dosed with hydrochloric acid to reduce the pH and heated. The brine is treated in a solvent extraction plant process where the Boron is selectively extracted by an organic material. The boron rich organic phase is separated from the brine and mixed with a caustic solution, which precipitates the boron. The organic phase material, now stripped of boron is reused in the boron extraction step.

Magnesium and Sulphate Removal

Magnesium and the sulfate ions are precipitated with the addition of lime, to increase the pH and by Calcium chloride, which reacts with the $MgCl_2$ and Na_2SO_4 to form solid $Mg(OH)_2$ and $CaS0_4$. These solid precipitates are filtered out of the brine and stored in the salt storage dumps. A final polishing step is undertaken where Barium chloride is dosed into the brine which removes the aqueous remnant sulfates and calcium as solid salts, which are also stored in the salt dumps.

Crude Lithium Carbonate Precipitation

The liquor from the magnesium and calcium removal stage is heated and mixed with sodium carbonate in a series of agitated tanks. The lithium carbonate precipitates as a solid and the liquor is pumped to a thickener to allow solid removal. The overflow from the thickener is pumped to the mother liquor pond to evaporate excess water, before the liquor is returned to the process to recover remaining lithium. The solids are removed by centrifuge and washed. The centrate is pumped to the thickener overflow. The lithium carbonate crude crystals are stored for further processing.

Pure Lithium Carbonate Production

The crude lithium carbonate crystals are redissolved in water, cooled and carbon dioxide gas is sparged through the liquid. The lithium carbonate dissolves as lithium bicarbonate while the impurity salts remain as solids. The slurry is then filtered to remove the impurities and the remaining liquid is heated which causes high purity lithium carbonate to precipitate. The lithium carbonate solids are removed by filter and washed, dried and micronised before bagging for transportation/export. The wash streams are all recycled back into the process to ensure maximum lithium and water recovery.

Direct Lithium Extraction (DLE) Overview

DLE has emerged as a potential disruptive technology to the conventional solar evaporation process to produce lithium carbonate from brines. The main advantages of DLE over conventional evaporation ponds are:

- Increased lithium recovery – processing less brine to produce the same production, relative to conventional ponds.
- Reduced process time – hours from well to product versus years for conventional processing.
- Improved sustainability – with brine returned to the salar in similar condition to the brine extracted, versus evaporation-based processing which sees the salar brine levels depleted.
- Reduced footprint without the requirement for large evaporation / crystallisation ponds.
- Potentially lower capital and operating costs.

The various DLE technology options use a number of different DLE media which recover lithium whilst rejecting the majority of saline impurities. Suppliers of the DLE technology have claimed recoveries greater than 90% for lithium.

Lithium Energy continues to evaluate DLE technology, and to that end has executed an agreement with Lanshen[11], for Lanshen to construct a demonstration plant capable of producing up to 3,000 tonnes per annum of battery grade lithium carbonate at Solaroz. The Plant will include Lanshen's proprietary sorbent-based DLE technology, which has already been proven on industrial and commercial scale.

Subject to receipt of all environmental and other permits, the Plant is planned to be built at the discrete stand-alone Mario Angel concession (comprising ~543 hectares out of a total Solaroz concession area of ~12,000 hectares), located to the south-west of the main Central Block of Solaroz concessions.

Drilling at Mario Angel (Hole SOZDD001) has encountered cumulative intersections of up ~235 metres of lithium brine mineralisation across the upper and lower aquifers, with an average grade of 446mg/l Li in the upper aquifer and 501 mg/l Li in the lower aquifer. Mario Angel was selected as it is a relatively small (543 hectares), discrete stand-alone concession ideally suited for DLE test purposes. The testing and plant operation at Mario Angel will also not impact on the development of the broader concession holdings at Solaroz.

DLE Basis for Scoping Study

The Study assumed a sorbent based DLE as a first basis for the DLE flowsheet case. This technology has the key advantage of being the only commercialised technology and being in operation on salar brine in Argentina. The Solaroz DLE design basis was set based on the feedback of the major sorbent based DLE industry providers in Argentina, Sunresin and Lanshen.

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

Lithium Carbonate Production Plant Layout

A preliminary 3D model was developed for the lithium carbonate production plant shown in Figure 8 below. The layout includes a single-train plant for the production of 20 ktpa LCE, with space for a second train to bring the total production to 40ktpa LCE. A total area of approximately 300,000m^2 (30ha) is required.

The layout includes an area for DLE should this technology be integrated into the plant.

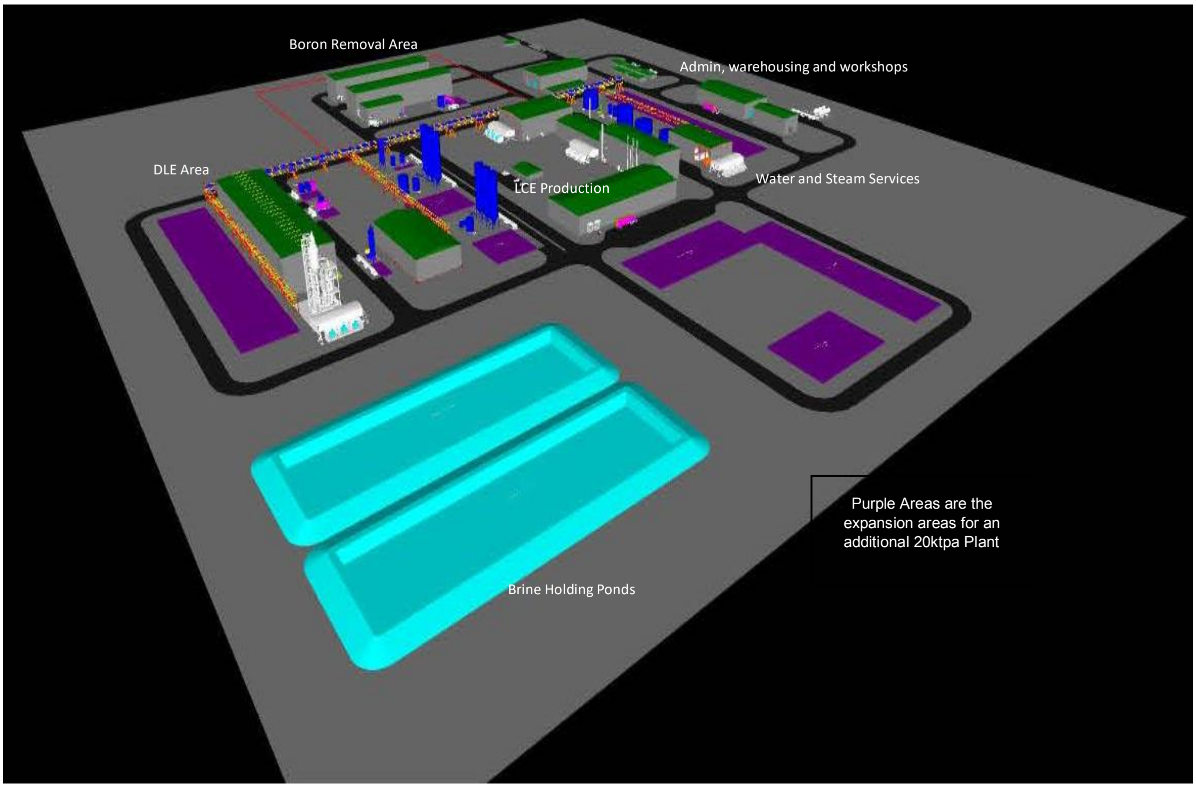

Figure 8: Layout Overview from the 3D Model

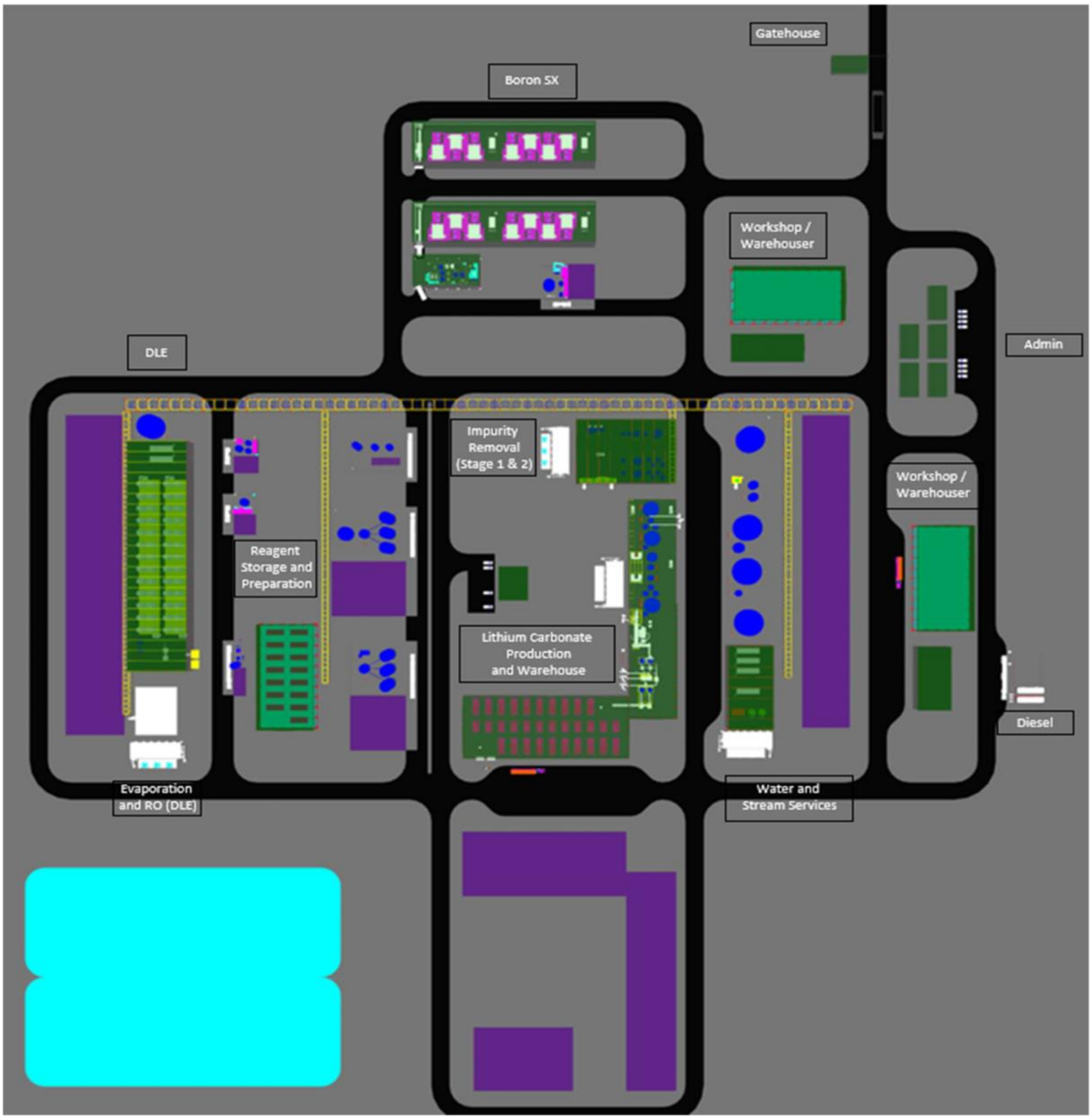

Figure 9: Top view of conceptual layout with areas shown for a single line production of 20ktpa LCE; Future expansion to a second line (total 40ktpa LCE) is shown by the purple reserved areas); Brine holding ponds are shown in blue (bottom left); the DLE area (left most) is only required for the DLE flowsheet option and would replace the Evaporation Ponds

Financials

Summary Project Financials

Table 6: Summary Project Financials for Conventional Evaporation Pond Processing Plant

Study Parameters[1]	Units	LCE Production Scenarios	
		20ktpa	40ktpa
Lithium Carbonate (Li_2CO_3) Production	Tonnes/year	20,000	40,000
Project Life Estimate[2]	Years	36	19
Total Capital Cost (CAPEX)[3]	US$M	542	987
Direct Capital Cost[4]	US$M	372	714
Average Annual Operating Cost (OPEX)	US$/tonne	4,985	4,611
Average Li_2CO_3 Selling Price[5]	US$/tonne	25,000	25,000
Average Annual EBITDA	US$M	378	730
Pre-Tax Net Present Value (NPV_{10}[6]) [7]	US$M	2,290	3,879
Pre-Tax Internal Rate of Return (IRR)	%	41	44
After-Tax Net Present Value (NPV_{10})[8]	US$M	1,319	2,200
After-Tax and Royalties IRR	%	29	32
Payback Period (After-Tax)	Years	2.5	2.0

Notes:

(9) Presented in 100% terms (Lithium Energy own 90% of Solaroz)

(10) Including ramp-up

(11) Excludes 30% contingencies

(12) Excludes contingencies, indirect costs and Owner's costs

(13) Assumed to be constant over life of mine (LOM)

(14) NPV is calculated using a 10% discount rate

(15) Includes royalties

(16) Includes working capital and depreciation

All economic results are based upon an assumed constant (over the LOM) price of US$25,000/t of battery grade lithium carbonate (Li_2CO_3). This assumed price is based upon an internal assessment undertaken by Lithium Energy, taking into account current and historical LCE prices together with various forecasts of future demand and supply from third-party sources. This compares with the current Lithium Carbonate (FOB, South America) price of US$28,250/t (as at 18 October 2023) and a 12 month high of US$64,500/t (as at 25 January 2023).[12]

12 Source. S&P Global Market Intelligence, 27 October 2023

Capital Cost Estimate

Processing plant capacities of 20ktpa and 40 ktpa LCE were estimated for the conventional flowsheet, to determine the impact on the capital intensity. A summary of the capital cost estimates is shown in Table 7.

Table 7: Summary of Capital Cost Estimates for Conventional Evaporation Pond Processing Plant

	LCE Production Scenarios	
Capital Cost Items (US$'Million)	**20ktpa**	**40ktpa**
Mechanical and Material Supply Costs	$74.2	$138.0
Mechanical Installation	$8.9	$16.6
Mobile Equipment for operations	$4.5	$6.0
Earthworks and Civil	$3.7	$6.9
Concrete	$11.1	$20.7
Structural Steel	$22.3	$41.4
Piping and Valves	$18.5	$34.5
Architectural	$7.4	$13.8
Electrical and Instrumentation	$40.8	$75.9
Brine wells, extraction and transfer to site	$30.0	$60.0
Evaporation and Mother Liquor ponds	$144.2	$288.5
Salt stockpile	$6.1	$12.2
Sub-Total Direct Costs	**$371.7**	**$714.5**
Common distributables including temporary facilities	$26.0	$46.4
Freight	$6.7	$12.4
Accommodation and travel	$11.2	$20.0
Allowance for establishment of temporary construction camp	$6.0	$6.8
Permanent operations camp	$7.2	$8.3
Heavy construction plant	$4.0	$5.0
First fills	$3.0	$5.5
Capital spares	$3.7	$6.9
EPCM	$55.8	$96.5
Owner's Costs (Project and Operational Readiness)	$18.6	$35.7
Owner's Costs (incl utility connections)	$28.5	$28.5
Sub-Total Indirect Costs	**$170.5**	**$272.1**
Contingency	$162.7	$296.0
Escalation	Excluded	Excluded
TOTAL CAPITAL COSTS	**$704.9**	**$1,282.6**

Estimate Methodology

The capital cost estimate was compiled based upon Study outputs (and the assumptions contained therein), following concept study order of magnitude methodologies to a target accuracy of -30% to +50%. Equipment costs are calculated based on capacity, factoring major process area total costs from recent similar projects. Mechanical installation, earthworks, concrete, structural steel, piping, architectural, electrical and instrumentation costs are included via factors on the estimated equipment supply cost and benchmarked against similar projects in Argentina. Project indirects are included as factored allowances based on historical data. 5% of Direct Costs was allocated as Owner's costs which account for Owner's project staffing and operational readiness costs. In addition to this, Lithium Energy added an additional US$28.5M of Owner's costs to account for utilities connection and supply, project insurance and training and plant support. Contingency has been included as a +30% factor on total direct and indirect costs and is intended to produce an estimate which has an equal chance of cost under run / over run. The estimate excludes Government levies and taxes; start-up and ramp-up costs; land acquisition; and any delays or accelerations.

A working capital allowance of US$31.6M per year was included in the financial model calculations.

Operating Cost Estimate

The operating costs for processing plant capacities of 20ktpa and 40 ktpa LCE using the conventional flowsheet were estimated, with a summary shown in Table 8.

Table 8: Operating cost summary for, 20, and 40 ktpa LCE Conventional flowsheet

	LCE Production Scenarios			
	20 ktpa		40 ktpa	
Operating Cost Items	US$ million / year	US$ /t LCE	US$ million / year	US$ / t LCE
Well Costs	$0.9	$45	$1.8	$45
Labour	$9.9	$496	$11.0	$276
Reagents	$60.0	$2,747	$109.9	$2,747
Utilities	$11.5	$573	$22.3	$557
Consumables	$2.0	$102	$3.5	$87
Maintenance	$7.0	$347	$13.5	$338
General and administration	$5.9	$294	$7.2	$180
Product transport costs	$2.1	$107	$4.3	$107
Waste disposal	$5.5	$273	$10.9	$273
TOTAL OPERATING COSTS	$99.7	$4,985	$184.4	$4,611

The LCE cost curve shown in Figure 10 below highlights the highly competitive position of Solaroz forecast operating costs compared to other global producers of LCE.

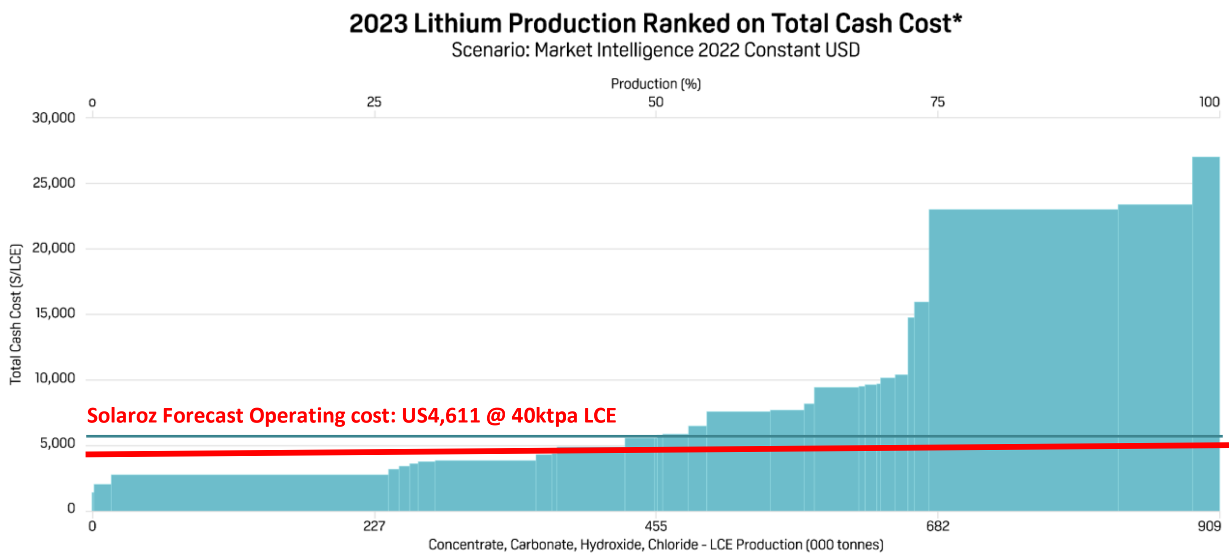

Figure 10: Industry Total Cash Cost curve for LCE production 2023 (source: S&P Global Market Intelligence, 27 October 2023)

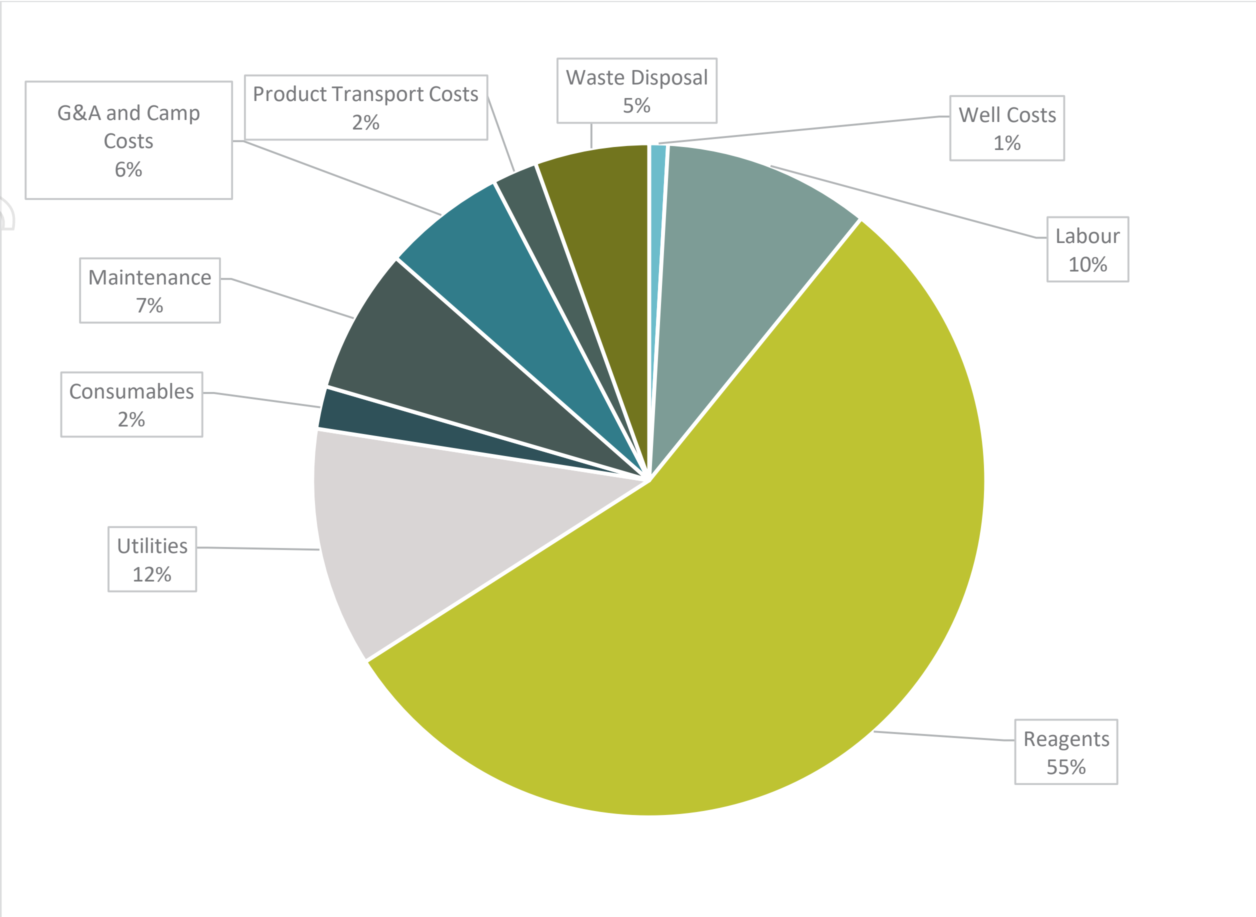

Figure 11: Operating cost breakdown for 20 ktpa LCE with a Conventional Evaporation Pond Configuration

Estimate Methodology

Reference to projects of similar complexity were used to derive many of the Study output costs and allowances.

The operating cost estimate was prepared with a target accuracy of ±50% - typical for a scoping study with order of magnitude costing: labour and utilities estimates were based on industry reference points; logistics and reagent delivery costs were based on delivery from Antofagasta; brine supply well costs were based on a 100 metre head total plus 150 metres for transfer. Product logistics costs were estimated by Lithium Energy and based on trucking product to the port of Buenos Aires.

The operating cost is based on a full year of typical operation, with production of 20ktpa of battery grade lithium carbonate and factored to reflect a 40ktpa operation. The operating cost is not reflective of construction, commissioning, or ramp-up phases of the Project.

Sensitivity Analysis

Sensitivity analysis shown in Figures 12 and 13 below for the 20ktpa LCE operation indicate the Project has a low sensitivity to both capex and opex fluctuation between ±30%. However, the Project is highly sensitive to fluctuations in both LCE price and production capacity. In a lower-case scenario modelled, if the assumed long term LCE price of US$25,000/t is reduced by 30%, the 20ktpa LCE capacity Project would still return an NPV_{10} of approximately US$1.2Bn with an IRR of 27%.

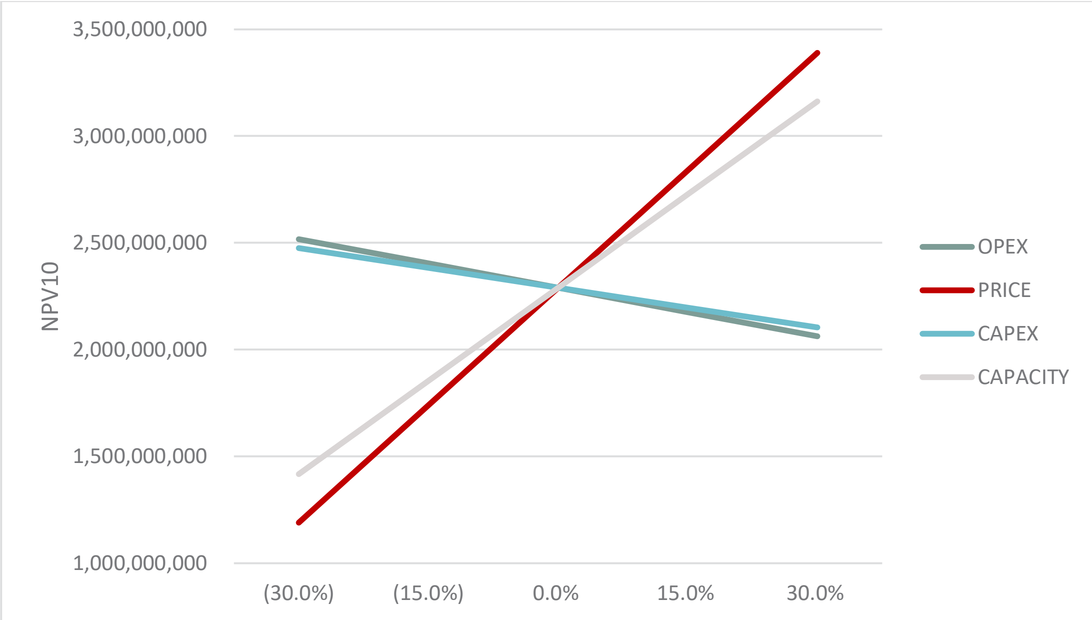

Figure 12: 20ktpa LCE Evaporation Plant NPV Sensitivity Analysis

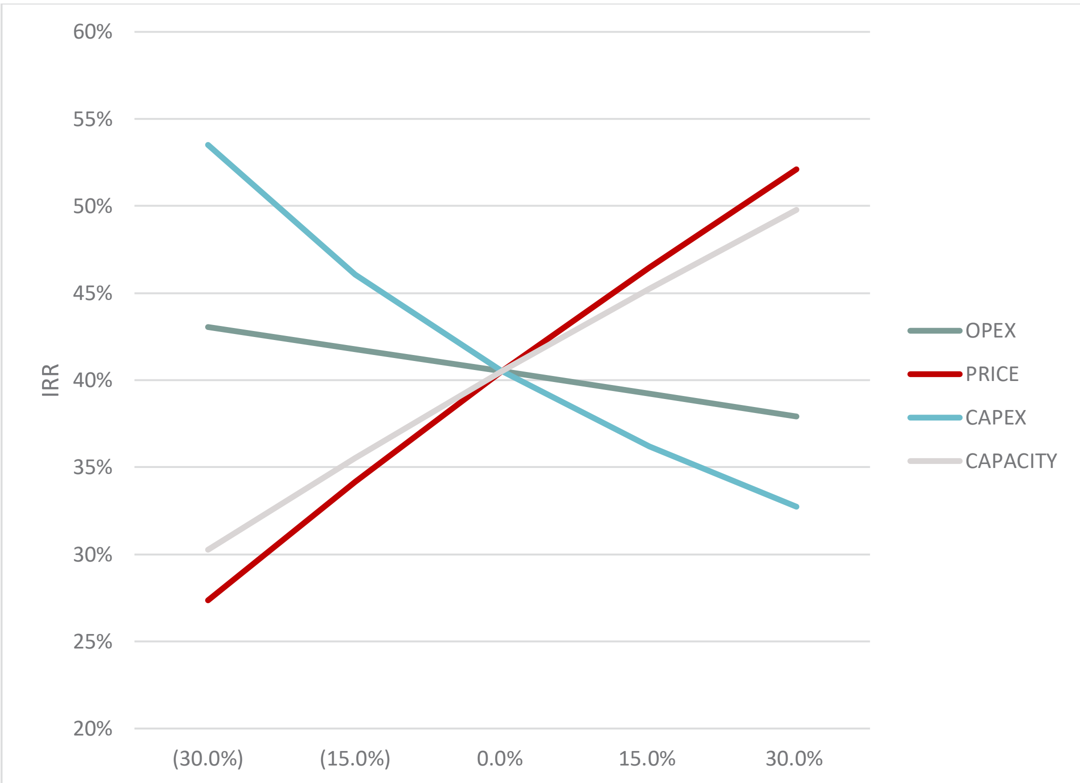

Figure 13: 20ktpa LCE Evaporation Plant IRR Sensitivity Analysis

Sensitivity analysis shown in Figures 14 and 15 below for the 40ktpa LCE operation indicate the Project has a low sensitivity to both capex and opex fluctuation between ±30%. However, the Project is highly sensitive to fluctuations in both LCE price and production capacity. In a lower-case scenario modelled, if the assumed long term LCE price of US$25,000/t is reduced by 30%, the 40ktpa LCE capacity Project would still return an NPV_{10} of approximately US$2.0Bn with an IRR of 30%.

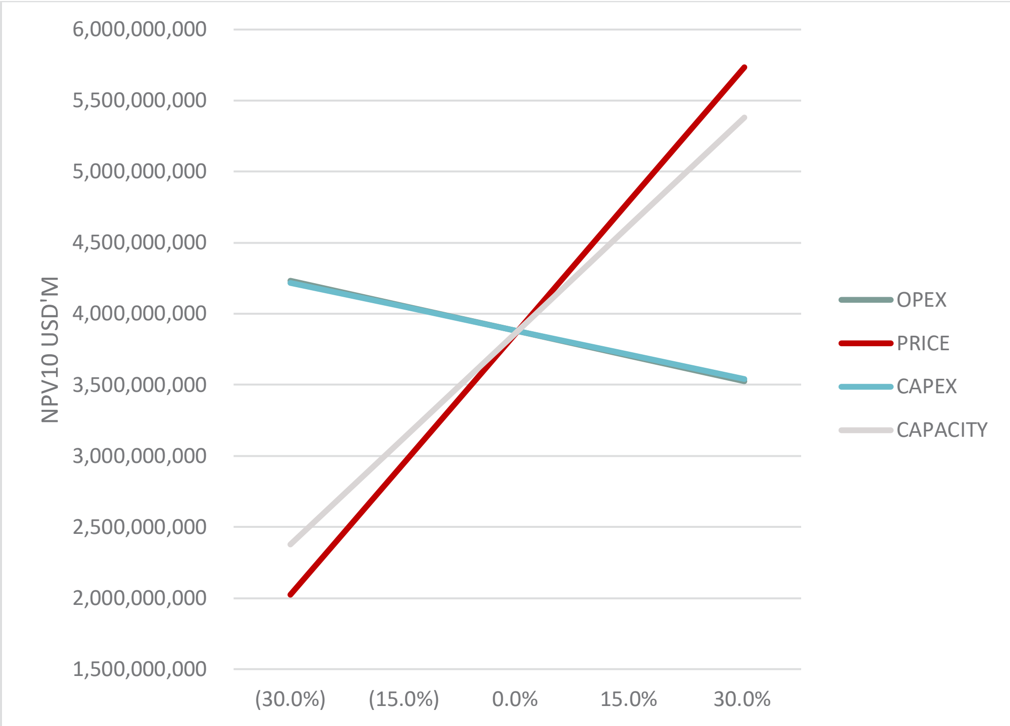

Figure 14: 40ktpa LCE Evaporation Plant NPV Sensitivity Analysis

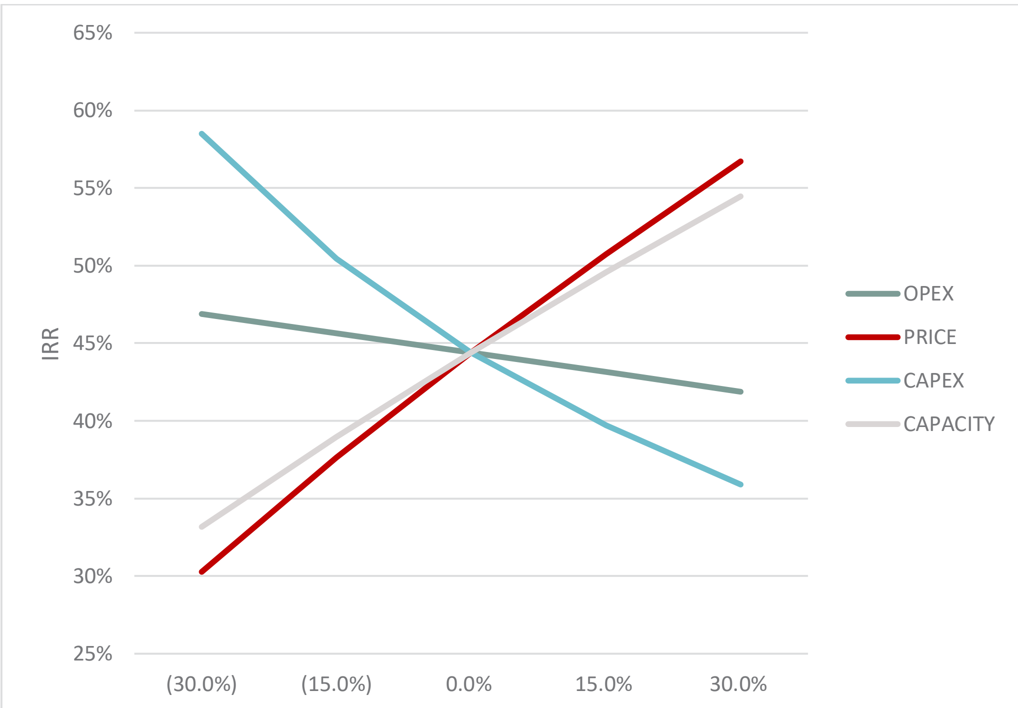

Figure 15: 40ktpa LCE Evaporation Plant IRR Sensitivity Analysis

Upside Opportunities

Extended Mine Life: The current 2.4Mt LCE Indicated Mineral Resource (at an average 400 mg/l Lithium grade) is based upon drilling results from only 6 of the 8 holes drilled under the initial resource definition drilling programme. The Company expects that the current JORC Indicated and Inferred Lithium Mineral Resource will be further upgraded as a consequence of on-going additional drilling on the Solaroz concessions, providing the opportunity to potentially extend forecast mine life.

ESG and Decarbonisation: The base case utilities basis for the development of Solaroz is electrical power and gas for heating purposes. Future studies will further investigate the potential for tie-in to local renewable power sources, potentially in combination with on-site renewable power generation and power storage.

Use of DLE in Place of Conventional Evaporation Ponds: The Study has indicated that DLE can potentially provide better recoveries and a more cost-effective operation. This could allow greater production capacity per cubic metre of brine processed and/or extended mine life as global demand grows. The Company will continue with its assessment of this technology, including the potential development of a 3,000 tpa DLE demonstration plant in collaboration with Lanshen[12].

Processing Economies of Scale by Production of lithium chloride solution: The present flowsheet is based on the production of battery grade lithium carbonate. The Project is located close to two other lithium operations – there may be a business case to produce only concentrated brine (potentially purified) and supply this product for final lithium carbonate production to the other operations. This could provide an opportunity for initial lower capital cost and early cash flow.

Risks & Mitigation

Evaporation ponds: Pressure is being applied to operations and projects in Chile and Argentina to reduce extraction volumes of brine, increase lithium recovery, reduce freshwater usage and reduce the physical footprint of evaporation and waste salts storage ponds.

Water Consumption: The reduction of water consumption (boilers, cooling towers, product washing) in the process will be a key focus in the development of the Project, where water recovery processes, such as reverse osmosis technologies and inter process recycling will be assessed.

Logistics: The location of the proposed plant is remote, hence the logistics required for the bulk handling of reagents requires further studies. The two adjacent (Allkem and Lithium Argentina) plants will make use of the same access roads and likely similar supply logistics. This could lead to higher costs or supply bottleneck, but also could see cost reductions if the operators negotiate bulk supply. Logistics studies will further explore supply opportunities in the next engineering phase.

Battery Grade Product: Salar evaporation operators have traditionally been less able to meet battery-grade specifications due to impurity carry over in the brine and due to impurities in the wash water and soda ash supplies. The Solaroz flowsheet includes a Bicarbonation purification stage to ensure battery-grade lithium carbonate is achieved. DLE operations typically result in lower levels of impurities occurring in the final product solution, however the risks of impurity addition with the final wash step and soda ash quality still exists. In future design development to mitigate this product purity risk, attention will be paid to the key influences of wash water, soda ash purity and fila product purification steps to ensure the value of the final product is maximised.

Project Implementation Plan

Lithium Energy is planning to focus on conducting the technical studies and environmental impact assessment work during the next 12 to 18 months to ensure a solid basis is defined on which an investment decision can be based. Figure 16 below provides a high-level view of the of the proposed Solaroz Implementation Plan

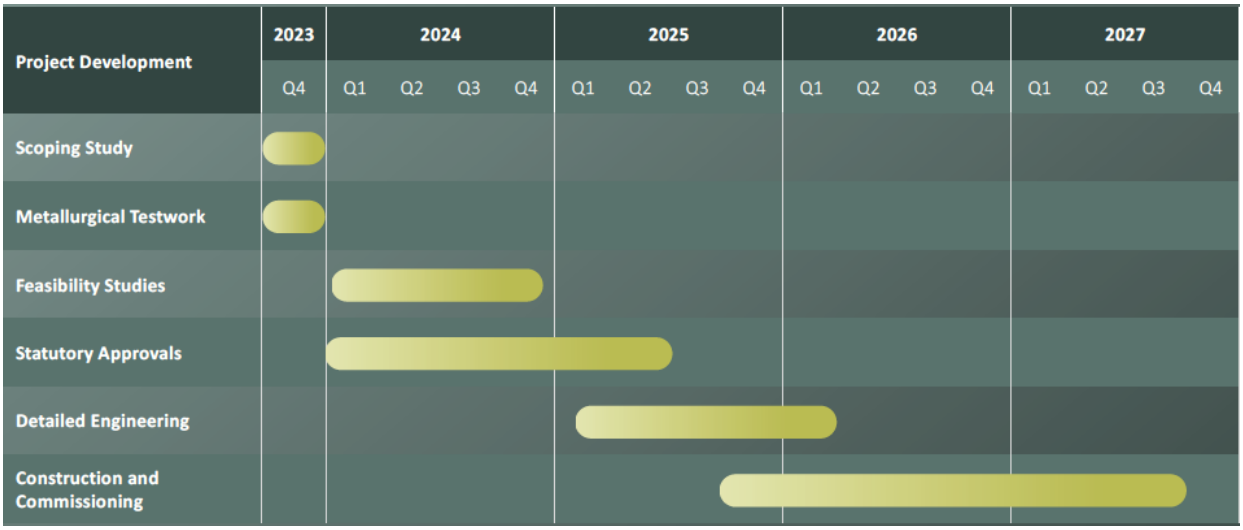

Figure 16: Project Implementation Plan.

Forward Work Plan

The key focus of the 18-month forward work plan is to define appropriate, representative and suitable data and design information which will underpin the next stage feasibility studies. This work will include:

Metallurgical Testwork

- Evaporation Pond and Processing metallurgical testwork to define evaporation rates, brine chemistry and salt precipitation conditions and lithium recovery, which will be used in designing the evaporation ponds. Work on this important aspect will be undertaken using representative Solaroz brine samples.
- DLE metallurgical testwork will be undertaken by Lanshen in their Santiago based laboratory pilot plant, where key design criteria such as resin performance, lithium recovery and spent brine chemistry will be determined.

Feasibility Studies

- On completion of the metallurgical testwork programmes, feasibility studies will be undertaken to further define the Project designs, capital costs and operating costs to an appropriate level to support an investment decision and funding. A key outcome will be a final decision on capacity strategy and processing technology.
- Part of the feasibility study process will be to undertake key ground works including geotechnical investigations, production well drilling and pumping simulations and defining water resources to support the Project.
- Utility supplies, including gas and electricity, will be defined and designed into the Project scope.

Statutory Approvals

- Environmental data collection and monitoring will be undertaken during the next 18 months, supported by design and further study work to develop an Environmental Impact Assessment (EIA), with the aim of securing all necessary environmental and other permits and approvals for Project development.
- Community engagement and agreements will also be ongoing, building on the positive community relationships developed to date by the Company.
- Permits and approvals to mine, produce and export product will be supported by the EIA and community agreements and are targeted to be secured by mid-2025.

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ABOUT LITHIUM ENERGY LIMITED (ASX:LEL)

Lithium Energy Limited is an ASX listed battery minerals company which is developing its flagship Solaroz Lithium Brine Project in Argentina and the Burke and Corella Graphite Projects in Queensland. The Solaroz Lithium Project (LEL:90%) comprises 12,000 hectares of highly prospective lithium mineral concessions (where a JORC Indicated and Inferred Mineral Resource of lithium has been delineated) located strategically within the Salar de Olaroz Basin in South America's "Lithium Triangle" in north-west Argentina. Lithium Energy shares the lithium rights in the Olaroz Salar basin with lithium carbonate producers Allkem Limited (ASX/TSX:AKE) and Lithium Argentina Corporation (TSX:LAAC). Lithium Energy has completed a Scoping Study on Solaroz and is investigating the development of a 20/40ktpa lithium carbonate equivalent (LCE) production facility using conventional evaporation ponds; the Company is also evaluating direct-lithium extraction (DLE) technologies. The Burke and Corella Graphite Projects (LEL:100%) in Queensland, Australia, contains high grade JORC Indicated and Inferred Mineral Resources of graphite; Lithium Energy is investigating the proposed development of a vertically integrated battery anode material manufacturing facility in Queensland.

JORC CODE COMPETENT PERSONS' STATEMENTS

(1) The information in this document that relates to Mineral Resources estimates (dated October 2023) in relation to the Solaroz Lithium Brine Project is extracted from the following ASX market announcement made by Lithium Energy Limited dated:

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

The information in the original announcement is based on information compiled by Mr Murray Brooker (MAIG, MIAH), a Competent Person who is a Member of the 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 which is relevant to the style of mineralisation and type of deposit under consideration and to the activity being undertaken to qualify as a Competent Person as defined in the 2012 Edition of the 'Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves' (the **JORC Code**). The Company confirms that it is not aware of any new information or data that materially affects the information included in the original market announcement (referred to above). The Company confirms that the form and context in which the Competent Person's findings are presented have not been materially modified from the original market announcement (referred to above).

(1) 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:

- 26 October 2023 entitled "Significant Solaroz Milestone Achieved with Upgrade to 2.4Mt LCE JORC Indicated Resource"
- 9 October 2023 entitled "Evaporation and Direct Lithium Extraction (DLE) Metallurgical Testwork Programmes Advancing at Solaroz Lithium Project"
- 20 September 2023 entitled "Drillhole 7 Yields Highest Grade Lithium to Date in Upper Aquifer"
- 5 September 2023 entitled "Conventional Solar Evaporation Option for Solaroz Lithium Project as Multiple EV Battery Parties Seek Partnership"
- 29 August 2023 entitled "Lithium Mineralisation Encountered in Northern Solaroz Concession"
- 31 July 2023 entitled "Quarterly Activities and Cash Flow Reports – 30 June 2023"
- 27 July 2023 entitled "Highest Lithium Concentrations Encountered at Solaroz Lithium Project in Hole 6"
- 13 July 2023 entitled "Drilling Commences at Hole 7 and Hole 6 Intersects Lithium-Rich Brines at Solaroz Lithium Project"
- 29 June 2023 entitled "Significant Maiden JORC Lithium Resource of 3.3Mt LCE at Solaroz Project in Argentina"
- 1 June 2023 entitled "Hole 6 Intersects Conductive Brines in Upper Aquifer at Solaroz Lithium Brine Project"
- 15 May 2023 entitled "Further Assays Confirm Significant Lithium Brine Concentrations Across Massive Intersections at Solaroz"
- 12 May 2023 entitled "Massive Intersections of Brine Continue at Solaroz at up to ~780 Metre Depth"
- 1 May 2023 entitled "Massive Intersections of Lithium Rich Brine Confirm World Class Potential of Solaroz Lithium Project"
- 19 April 2023 entitled "Holes 4 and 5 Encounter Significant Intersections of Conductive Brines at Solaroz Lithium Project"
- 14 March 2023 entitled "Further Significant Lithium Discovery Extends Mineralisation at Solaroz Lithium Brine Project"
- 10 March 2023 entitled "Positive Specific Yields and Significant Averaged Lithium Concentrations in SOZDD001 at Solaroz Lithium Brine Project"
- 18 August 2022 entitled "Highly Encouraging Geophysics Paves Way for Commencement of Drill Testing of Brines at Solaroz"
- 9 May 2022 entitled "Geophysics Expanded Across all Concessions to Refine Drill Targets at Solaroz Lithium Project"
- 26 May 2021 entitled "Geophysical Data Supports Highly Encouraging Exploration Potential for Solaroz"

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

OTHER NOTES

(1) The Scoping Study referred to in this announcement has been undertaken for the purpose of initial evaluation of a potential development of the Solaroz Lithium Brine Project in Argentina. It is a preliminary technical and economic study of the potential viability of the Solaroz Project. The Scoping Study outcomes, production target and forecast financial information referred to in the release are based on low level technical and economic assessments that are insufficient to support estimation of Ore Reserves. The capital and operating cost estimates in the Scoping Study are presented in US dollars to an accuracy level of - 30% to +50%.

(2) The Mineral Resources underpinning the production target in the Scoping Study have been prepared by a competent person in accordance with the requirements of the JORC Code (2012). For full details on the Mineral Resource estimate, please refer to the ASX announcement dated 26 October 2023 entitled “Significant Solaroz Milestone Achieved with Upgrade to 2.4Mt LCE JORC Indicated Resource”. Other than as presented in this announcement, the Company confirms that it is not aware of any new information or data that materially affects the information included in the previous announcement and that all material assumptions and technical parameters underpinning the estimate continue to apply and have not been changed. This Scoping Study is based on the material assumptions outlined in this announcement. These include assumptions about the availability of funding. While the Company considers that all the material assumptions are based on reasonable grounds, there is no certainty that they will prove to be correct or that the range of outcomes indicated by the Scoping Study will be achieved.

(3) The Company has concluded that it has reasonable grounds for disclosing a production target which includes an amount of Inferred Mineral Resources. The production targets in the Scoping Study are underpinned (94%) by Indicated Mineral Resources of 1,185kt LCE and (6%) by Inferred Mineral Resources of 73kt LCE, being a Total Indicated and Inferred Mineral Resource of 1,258kT LCE at an average grade of 400 mg/l Lithium (at a 320mg/l Li cut-off grade). There is a low level of geological confidence associated with Inferred Mineral Resources and there is no certainty that further exploration work will result in the determination of Indicated Mineral Resources or that the production target itself will be realised. The viability of the development scenario envisaged in the Scoping Study does not depend on the inclusion of Inferred Mineral Resources.

(4) While each of the modifying factors was considered and applied, there is no certainty of eventual conversion to Ore Reserves or that the production target itself will be realised. Further exploration and evaluation and appropriate studies are required before the Company will be able to estimate any Ore Reserves or to provide any assurance of any economic development case. Given the uncertainties involved, investors should not make any investment decisions based solely on the results of the Scoping Study. Of the Mineral Resources proposed for extraction in the Scoping Study production plan, approximately 94% are classified as Indicated and 6% as Inferred.

(5) To achieve the range of outcomes indicated in the Scoping Study, funding in the order of US$700 million (for a 20ktpa LCE 36 year LOM Plant) to $1,300 Million (for a 40ktpa LCE 19 year LOM Plant) (both inclusive of 30% contingencies in respect of capital costs) will likely be required. Investors should note that that there is no certainty that the Company will be able to raise that amount of funding when needed. It is also possible that such funding may only be available on terms that may be dilutive to or otherwise affect the value of the Company existing shares. It is also possible that the Company could pursue other value realisation strategies such as a sale or partial sale of its interest in the Solaroz Lithium Brine Project.

(6) The design and engineering components of the Scoping Study has been prepared by professional services firm Hatch for exclusive use by the Company, is not intended for public disclosure, must not be used or relied upon by third parties, covers only selected aspects of the Project, is based on various information provided by or on behalf of the Company, and is subject to various assumptions, conditions and disclaimers. Hatch does not endorse or otherwise provide any guarantee, warranty or other statement on the feasibility or any particular outcome of the Project.

FORWARD LOOKING STATEMENTS

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

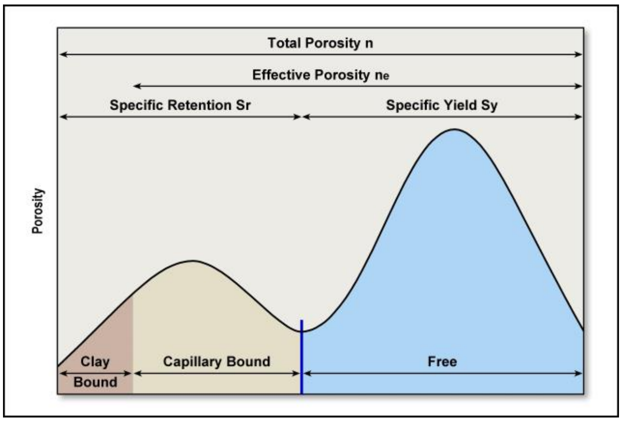
JORC CODE (2012 EDITION)
CHECKLIST OF ASSESSMENT AND REPORTING CRITERIA
FOR EXPLORATION RESULTS

Section 1 Sampling Techniques and Data

(Criteria in this section apply to all succeeding sections)

Criteria	Explanation	Comments
Sampling techniques	• *Nature and quality of sampling (e.g. cut channels, random chips, or specific specialised industry standard measurement tools appropriate to the minerals under investigation, such as down hole gamma sondes, or XRF instruments, etc.). These examples should not be taken as limiting the broad meaning of sampling.* • *Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used* • *Aspects of the determination of mineralisation that are material to the Public report. In cases where 'industry standard' work has been done this would be relatively simple (e.g. 'reverse circulation drilling was used to obtain 1m samples from which 3kg was pulverised to produce a 30g charge for fire assay'). In other cases more explanation may be required, such as where there is coarse gold that has inherent sampling problems. Unusual commodities or mineralisation types (e.g. submarine nodules) may warrant disclosure of detailed information.*	**Drill Samples** The pre-collars from surface were drilled using the Tricone drilling method, and chips were logged as collected, to variable depths below surface, depending on the hole. The pre-collar was then cemented in and HQ Core drilled. Core recovery from the HQ was carefully measured by comparing the measured core to the core runs and then a total recovery per section determined. HQ Drill core sampling was undertaken to obtain representative samples of the stratigraphy and sediments that host brine. Water/brine samples were taken from target intervals, using single packer sampling descending and double packers as check samples ascending the holes (depending on the condition of the drillhole). Packer samples isolate a volume of the stratigraphy around the hole, to collect representative brine samples from that interval. Brine was collected by purging isolated sections of the hole of all fluid, removing more than three volumes of the sampling chamber and drilling rods to minimise the possibility of contamination by drilling fluid. The hole was then allowed time to re-fill with ground water, where a sample for laboratory analysis is collected (~1.5L), with collection of the hole in triplicate. The casing lining the hole ensures contamination with water from higher levels in the borehole is likely prevented. Samples were taken systematically in the holes based upon geological logging and conductivity testing of water. Samples were taken as descending packers with a spacing of ~18m (later ~24m) between samples descending in the holes. Conductivity and Density measurements are taken with a field portable High Range Hanna multi parameter meter and floating densiometers. Testing of the chemical composition (including Lithium, Potassium, Magnesium concentrations) of brines are undertaken at a local laboratory in Argentina. Relevant results of Lithium concentration assayed from brine samples taken at various intervals in drillholes SOZDD001, SOZDD002, SOZDD003, SOZDD004, SOZDD005, SOZDD006, SOZDD007 and SOZDD008 are presented in Table 9 – the Company has also previously announced field and assay results of samples in respect of some 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.

Criteria	Explanation	Comments
		Samples were collected for a 20 minute duration at station spacing of 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 is extracted during sampling and the sediments are not the target for lithium extraction (I.e. the sediments are not mined, milled or processed), the lithium is extracted directly from the brine.
Logging	• *Whether core and chip samples have been geologically and geotechnically logged to a level of detail to support appropriate Mineral Resource estimation, mining studies and metallurgical studies.* • *Whether logging is qualitative or quantitative in nature. Core (or costean, channel etc.) photography.* • *The total length and percentage of the relevant intersections logged*	**Drilling** Lithium Energy has geologists at each drillhole site logging the drill core 24/7. The core is logged by a senior geologist and contract geologists (who are overseen by the senior geologist). The senior geologist also supervises the taking of samples for laboratory analysis. Logging is both qualitative and quantitative in nature. The relative proportions of different lithologies which have a direct bearing on the overall porosity, contained and potentially extractable brine are noted, as are more qualitative characteristics such as the sedimentary facies. Cores are photographed. Downhole geophysical logging was undertaken by Zelandez, a Salta (Argentina) based specialist Borehole Geophysical Logging company, with a number of logging probes, including, Caliper, Conductivity, Resistivity, Borehole Nuclear Magnetic Resonance (NMR or BMR), Spectral Gamma. The BMR probe in particular provides information of Total Porosity, Specific Retention and Specific Yield. The total porosity of a rock formation represents the total pore space. Although Total Porosity has two principal components, Specific Retention and Specific Yield: (a) Specific Retention (Sr), represents the portion of the Total Porosity that is retained by clay and capillary bound sections of a sediment. (b) Specific Yield (Sy) is the amount of water/brine that is actually available within the sediment for groundwater pumping.

Criteria	Explanation	Comments
		 *Figure 17: 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 over less than 1 metre 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 will be analysed in a secondary porosity laboratory, as a check on the GSA results. Results are plotted versus BMR data on downhole plots, to compare results from the two methods. Brine samples were sent to the Alex Stewart International Laboratory in Jujuy, Argentina, where detailed chemistry was processed. The laboratory is ISO 9001 and ISO 14001 certified and specialises in the chemical analysis of brines and inorganic salts, with considerable experience in this field. The Company has previously announced field brine sampling results and the analytical results from the Alex Stewart International Laboratory in respect of drillholes SOZDD001, SOZDD002, SOZDD003, SOZDD004, SOZDD005, SOZDD006 and SOZDD007 - 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. Due to challenges encountered with completing SOZDD004, the drilling company has drilled an adjacent (twin) hole (SOZDD04R) for geophysical hole logging (at their cost). Geophysical hole logging was completed to a depth of 403 metres in SOZDD004 and 464 metres in the twin-hole SOZDD04R, located 10 metres from the original SOZDD004. With completion of this twin-hole, measurements were completed for total porosity, specific yield, conductivity, resistivity and spectral gamma. Due to drill hole conditions and the limitations of the drill rig, geophysical hole logging was not able to be completed to the hole depth at 787.5 metres. **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.

Criteria	Explanation	Comments
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 topographic control.*	**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 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

Criteria	Explanation	Comments
		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. The initial resource definition drilling programme has been completed. The Company's independent Competent Person (in respect of the delineation of a JORC Mineral Resource for the Project) has approved the procedures to date and visited the site (on multiple occasions) to review first-hand the drilling practice and logging, sampling, QA/QC controls and data management. **Geophysics** 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 1): (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 Argentina Corporation (TSX:LAAC) (formerly part of Lithium Americas Corporation (TSX:LAC)) (**Lithium Argentina**). The Company has reviewed the relevant open file published documents and images relating to the Salar de Olaroz (**Olaroz Salar**) and from this review made its interpretations relating to the Company's Solaroz Concessions. The published data upon which the geological model for the Company's Solaroz Project has been developed includes the following works: • Houston, J., Gunn, M., Technical Report on the Salar De Olaroz Lithium-Potash Project, Jujuy Province, Argentina. NI 43-101 report prepared for Orocobre Limited, 13 May 2011. • Orocobre Limited ASX/TSX Announcement dated 23 October 2014 entitled "Olaroz Project - Large Exploration Target Defined Beneath Current Resource". • Allkem Limited ASX/TSX Announcement dated 27 March 2023, "Olaroz resource increases 27% to 20.7 million tonnes LCE".

Criteria	Explanation	Comments
		• Reidel, F., Technical Report on Cauchari JV Project – Updated Mineral Resource Estimate, prepared for Advantage Lithium Corporation, 19 April 2019. • Orocobre Limited ASX/TSX Announcement dated 10 January 2019 entitled "Cauchari Drilling Update – Phase III Drilling Complete". • Burga, E. et al, Technical Report - Updated Feasibility Study and Mineral Reserve Estimation to support 40ktpa Lithium Carbonate Production at the Cauchari-Olaroz Salars, Jujuy Province, Argentina, prepared for Lithium Argentina Corporation, 30 September 2020. • Salfity Geological Consultants Map for Salar de Olaroz
Geology	• *Deposit type, geological settings and style of mineralisation.*	The Salar de Olaroz originated as a structurally bounded, closed basin during the late Paleogene-Early Neogene. During much of the Miocene it appears to have slowly filled with medium to coarse grained alluvial fans and talus slopes eroded from the surrounding mountain ranges. As accommodation space was filled the sediments became progressively finer grained, braidplain, sandflat, playa and fluvial architectures are noted in the Upper Miocene and Pliocene. As the climate became more arid during the Pliocene evaporitic deposits first appeared. Normal faulting created additional accommodation space probably initiated at this time too. The lowest drilled sediments indicate an arid climate with abundant halite. These Units are probably Pleistocene in age and are likely contiguous with the lowest drilled and reported sediments in the Salar de Cauchari to the south, suggesting the two basins operated as a continuous hydrologic entity at that stage. Succeeding Units suggest continued subsidence in the centre of the basin, with a climate that was variable, but never as arid as during the period dominated by the abundant Halite development. Influx of water and sediment is primarily from the Rosario catchment at the north of Salar de Olaroz and alluvial fans around the edge of the basin. At depth a thick highly porous sand aquifer has been intersected in both the Salar de Cauchari (by Lithium Argentina) and the Salar de Olaroz (by Orocobre). Due to its depth the aquifer was only intersected in a few holes, as of the 23 October 2014 Orocobre announcement. However, more recent drilling at Olaroz has confirmed the extent and importance of this unit. The significance of the 'Deep Sand Unit' is that sands of this type have free draining porosity of up to 25%, based on previous third party test work, and the sands unit could hold significant volumes of lithium-bearing brine which could be added to the resource base by future drilling" (per Orocobre's 23 October 2014 announcement).

Drill hole Information	• *A summary of all information material for the understanding of the exploration results including a tabulation of the following information for all Material drill holes:*
	  • *Easting and northing of the drill hole collar*
	  • *Elevation or RL (Reduced level-elevation above sea level in metres) and the drill hole collar*
	  • *Dip and azimuth of the hole*
	  • *Down hole length and*
		Details of the collar location, azimuth, depth for Drillhole ID's SOZDD001 to SOZDD008 are reported in Table 8.
		All holes are drilled vertically through the unconsolidated clastic sediments and halite (salt) unit.

Criteria	Explanation	Comments
	interception depth • *Hole length* • *If the exclusion of this information is justified on the basis that the information is not Material and this exclusion does not detract from the understanding of the report, the Competent Person should clearly explain why this is the case.*	
Data aggregation methods	• *In reporting Exploration results, weighing averaging techniques, maximum and/or minimum grade truncations (e.g. cutting of high grades) and cut-off grades are usually material and should be stated.* • *Where aggregate intercepts incorporate short lengths of high grade results and longer lengths of low grade results, the procedure used for such aggregation should be stated and some typical examples of such aggregations should be shown in detail.* • *The assumptions used for any reporting of metal equivalent values should be clearly stated.*	Where the Company has undertaken data aggregation: • Within a given defined aquifer, the Company has aggregated the assays based on a numerical average of the samples. • Total Porosity and Specific Yield have been averaged over the aquifers' interpreted width, with the underlying Total Porosity and Specific Yield being collected at ~2cm intervals from down hole BMR geophysical logging. Mg/Li Ratio's have been reported which is a standard representation. Elemental lithium has been converted to Lithium Carbonate Equivalent (**LCE**) using a conversion factor of 5.323 to convert Li to Li_2CO_3); reporting lithium values in LCE units is a standard industry practice.
Relationship between mineralisation widths and intercept lengths	• *These relationships are particularly important in the reporting of Exploration Results.* • *If the geometry of the mineralisation with respect to the drill hole angle is known, its nature should be reported.* • *If it is not known and only the down hole lengths are reported, there should be a clear statement to this effect (e.g. 'down hole length, true width not known')*	It is assumed that the brine layers lie sub-horizontal and, given that the drillhole is vertical, that any intercepted thicknesses of brine layers would be of true thickness.
Diagrams	• *Appropriate maps and sections (with scales) and tabulations of intercepts would be included for any significant discovery being reported. These should include, but not be limited too plan view of drill hole collar locations and appropriate sectional views.*	Figure 1 shows the location of the Solaroz Concessions (and relevant infrastructure) adjacent to the concessions held by Allkem and Lithium Argentina on the Olaroz Salar, the location of drill holes SOZDD001 to SOZDD008 and the Indicated and Inferred Mineral Resource areas within the Solaroz Concessions. Figure 2 illustrates the Project's geological model. Figure 3 illustrates the resource model for the mineral resource estimate and the distribution of the higher grade zone within this resource. Figure 4 shows the location of drillholes SOZDD001 to SOZDD008 within the Solaroz Concessions and highlights of the drilling results (to date). Downhole Geophysical logging of holes was undertaken with a

Criteria	Explanation	Comments
		number of logging probes, including, Caliper, Conductivity, Resistivity, BMR, Spectral Gamma. The BMR probe in particular provides information of Total Porosity, Retained Porosity (specific retention) and Specific Yield.
Balanced reporting	• *Where comprehensive reporting of all Exploration Results is not practicable, 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 bedrock in the Olaroz Salar, which practically sets the lowest depth limit to which lithium-rich brines could be encountered in the basin. The AMT Line surveys (which measure resistivity) were conducted to identify the interfaces between fresh water and the more conductive brines, facilitating the identification of the location and extent of potentially lithium-rich brines occurring above the bedrock. The Company has undertaken its own geophysics programme across all the Solaroz Concessions, comprising: • Passive seismic surveys, to determine the depth of the underlying bedrock (i.e. the theoretical limit of potential lithium mineralisation) underneath the concessions; and • Transient Electromagnetic geophysics (**TEM**), to identify the location and thickness of potential lithium-hosting conductive brines underneath the Solaroz Concessions. Further details are also in the Company's ASX announcement dated 18 August 2022 entitled "Highly Encouraging Geophysics Paves Way for Commencement of Drill Testing of Brines at Solaroz". Some of the TEM survey lines undertaken across the Solaroz Concessions (also identified) are also shown in Figure 6 of the Company's ASX announcement dated 16 November 2022 entitled "Drilling Completed at Maiden Drillhole at Solaroz Lithium Brine Project". Passive seismic surveys have been carried out consisting of lines in different orientations through the Solaroz Concessions. The results of the two passive seismic programmes have been interpreted and referenced against the TEM survey data, to develop the best possible geophysical interpretation. This data has incorporated the initial results of the diamond core drilling programme to develop the geological model for the Project and the resource model for the mineral resource estimate. The (field and assay) results of packer sampling and geophysical hole logging at the first drillhole (SOZDD001, located on the Mario Angel concession) at Solaroz has also been previously announced – refer to the Company's ASX announcement dated 10 March 2023 entitled "Positive Specific Yields and Significant Averaged Lithium Concentrations in SOZDD001 at Solaroz Lithium Brine Project". The (field) results of initial packer sampling at the second drillhole (SOZDD002, located on the Chico V concession) at Solaroz has also

Criteria	Explanation	Comments
		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 (field and assay) results of packer sampling at the fourth drillhole (SOZDD004, located on the Chico I concession) have been previously reported – refer to the Company's ASX Announcement dated 15 May 2023 entitled "Further Assays Confirm Significant Lithium Brine Concentrations Across Massive Intersections at Solaroz" and 29 August 2023 entitled "Lithium Mineralisation Encountered in Northern Solaroz Concession". The (field and assay) results of packer sampling and geophysical hole logging at the fifth drillhole (SOZDD005, on the Chico VI concession) have been previously reported – refer to the Company's ASX Announcements dated 31 July 2023 entitled "Quarterly Activities and Cash Flow Reports – 30 June 2023" and 15 May 2023 entitled "Further Assays Confirm Significant Lithium Brine Concentrations Across Massive Intersections at Solaroz". The (field and assay) results of airlift and packer sampling and geophysical hole logging at the sixth drillhole (SOZDD006, on the Chico VI concession) have been previously reported – refer to the Company's ASX Announcements dated 31 July 2023 entitled "Quarterly Activities and Cash Flow Reports – 30 June 2023", 27 July 2023 entitled "Highest Lithium Concentrations Encountered at Solaroz Lithium Project in Hole 6" and 29 August 2023 entitled "Lithium Mineralisation Encountered in Northern Solaroz Concession". The (field and assay) results of airlift and packer sampling at the seventh drillhole (SOZDD007, on the Payo 1 concession) have been previously reported – refer to the Company's ASX Announcements dated 29 August 2023 entitled "Lithium Mineralisation Encountered in Northern Solaroz Concession" and 20 September 2023 entitled "Drillhole 7 Yields Highest Grade Lithium to Date in Upper Aquifer". The (field and assay) results of airlift sampling at the eighth drillhole (SOZDD008, on the Chico I concession) have been previously reported – refer to the Company's ASX Announcements dated 20 September 2023 entitled "Drillhole 7 Yields Highest Grade Lithium to Date in Upper Aquifer" and 26 October 2023 entitled "Significant Solaroz Milestone Achieved with Upgrade to 2.4Mt LCE JORC Indicated Resource".
Further work	• *The nature and scale of planned further work (e.g. tests for lateral extensions or depth extensions or large-scale step- out drilling).* • *Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, providing this information is not commercially sensitive.*	The Company has completed a major exploration programme on the Solaroz Concessions comprising comprehensive geophysical surveys (passive seismic and TEM surveys) and a significant (diamond with rotary precollars) drilling programme (comprising 8 holes totalling ~5,000m), which has led to the discovery of lithium bearing brines of economic interest, compilation of information on the hydrogeological and geochemical characteristics of the brine rich aquifers (including data related to basic physical parameters of the different hydrogeological units) that comprises the Olaroz Salar underneath the Solaroz Concessions and the delineation of a maiden and upgraded JORC Indicated and Inferred Lithium Mineral Resource. 8 holes have been drilled in this initial drilling programme - SOZDD001 (on the Mario Angel concession), SOZDD002 (on the Chico V concession), SOZDD003 (on the Chico I concession), SOZDD004 (on

Criteria	Explanation	Comments
		the Chico I concession), SOZDD005 (on the Chico VI concession), SOZDD006 (on the Chico VI concession), SOZDD007 (on the Payo 1 concession) and SOZDD008 (on the Chico I concession). Additional (including in-fill) holes are planned in the Central Block (Chico I, V and VI, Payo 2 South and Silvia Irene concessions), to improve the confidence in correlation of lithology, porosity and brine concentration between holes in the Central Block. Drilling is planned to further evaluate the Northern Block (Payo 1 and Payo 2 North concessions). The Company expects that the current JORC Indicated and Inferred Lithium Mineral Resource will be further upgraded as a consequence of on-going additional drilling on the Solaroz Concessions. Large diameter wells will be drilled and installed on relevant areas for pump testing. Hydrological studies will be undertaken, to support groundwater modelling to define lithium brine extraction rates. Process test work (which is equivalent to metallurgical test work) will be undertaken on relevant lithium brine samples. The Company is finalising a Scoping Study for the production of battery grade lithium carbonate from the lithium rich brines at Solaroz, via both traditional pond evaporation and direct lithium extraction (DLE) technology). 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.*	There is a reasonable confidence in the geological model for the Project, with eight holes completed to date, along with comprehensive geophysical surveys. There are relatively distinct geological units in essentially flat lying, relatively uniform, clastic sediments, with the halite unit as a distinctive marker in the middle of the sequence. This is consistent with observations from the Allkem

Criteria	Explanation	Comments
	• *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.*	and Lithium Argentina lithium brine projects further to the south on the Olaroz Salar/Salar de Cauchari. Geophysics and drilling data has been used to define lithological surfaces, in particular the top of the halite unite and the bedrock. Any alternative interpretations in the area of drilling are restricted to smaller scale variations in sedimentology, related to changes in grain size and fine material in units. There is greater uncertainty further to the west and north. However, the geophysics suggests the halite unit continues, suggesting the same stratigraphy is relevant. Geology is key for defining the resource estimate. A thicker or a thinner halite unit would have significant impact on the contained lithium tonnage, as the specific yield is lower in the halite unit. Changes in specific yield porosity were responsible for differences between the maiden Inferred Mineral Resource and the upgraded Indicated and Inferred Mineral Resource. The specific yield is significantly higher for the upper (Unit A) compared to the lower (Unit C and D) clastic units, which are more compact. As the porosity characteristics of the halite unit are distinct, the thickness of this unit in the Inferred Mineral Resource in the Northern Block has significant influence on the contained lithium tonnage. Sedimentary processes affect the continuity of geology, whereas the concentration of lithium and other elements in the brine is related to water inflows, evaporation and brine evolution in the salar and location relative to the salar, where brine was formed and concentrated.
Dimensions	• *The extent and variability of the Mineral Resource expressed as length (along strike or otherwise), plan width, and depth below surface to the upper and lower limits of the Mineral Resource*	The lateral extent of the Mineral Resource estimate has been defined by the boundary of the Solaroz Concessions and the extent of the brine, as indicated by the TEM geophysics. The brine mineralisation in the resource model covers an area of 46.18 km^2 (4,618 ha) for the Indicated Resource, in the Central Block. The Inferred Resource consists of 3.64 km^2 (364ha) in the southern Mario Angel concession, 4.13 km^2 (413 ha) in the North of the Central Block and 27.07 km^2 (2,707 ha) in the Northern Block. The combined total resource area is 73.25 km^2 (7,325 ha). The top of the geological model coincides with the topography obtained from the Also Palsar imagery. The original elevations were locally adjusted for each drill hole collar with the most accurate coordinates available. The top of the brine is based on interpretation of the geophysics and the intersections in the drill holes of brine, with a concentration of ~200 mS/cm or more. The depth to the top of the brine increases further from the salar, at higher elevations and because brine is further below ground surface further from the salar, where brine is formed. Such a deepening with greater depth from the salar is expected and observed in other salt lake basins. In hole SOZDD002, the brine concentration is low, as Unit A directly overlies bedrock and the deeper Units B, C and D, which have higher lithium concentrations, are not present. The base of the Mineral Resource is limited by the interpreted bedrock surface, which is based on the passive seismic survey and the intersections of the interpreted bedrock rocks in drill holes.
Estimation and modelling techniques	• *The nature and appropriateness of the estimation technique(s) applied and key assumptions, including treatment of extreme grade values, domaining, interpolation parameters and maximum distance of extrapolation from data points. If a*	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

Criteria	Explanation	Comments
	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 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.*	surrounding samples, were rejected, as they are considered to be diluted samples contaminated by drilling fluids. No grade cutting, or capping was applied to the Lithium. Lithium concentrations increase down hole, becoming progressively more concentrated in lithium beneath an upper brackish zone. The lithium concentration reaches a consistent concentration within and below the halite unit. The BMR data was reviewed and values above 30% specific yield were cut, as these are high specific yield values. Similarly, values below 1% were cut. Results from the primary porosity laboratory (GSA) were compared with results from the down hole BMR logging. A simple volumetric check estimate was carried out using the volume of the geological units and representative values for porosity and lithium concentration. Potassium is the most economically significant element dissolved in the brine after lithium. Potassium can be produced using the evaporative process as for lithium. However, the final production of potassium requires independent processing from the lithium brine. The potassium recovery process is well understood and could be implemented in the Project. However, potassium production does not add significantly to the economics of the Project and hence is not considered. Interpolation of lithium for each block in mg/l used the Leapfrog Radial Basis Function (not kriging, which is used to estimate specific yield). The presence of brine is not necessarily controlled by the lithologies and lithium concentrations are independent of lithology. Geological units had hard boundaries for estimation of porosity. Deleterious elements in the brine consist of Mg, Ca, B and SO_4 in particular. The distribution of these elements was estimated along with lithium, as these elements are routinely analysed. Estimation of Mineral Resources used the average Specific Yield value for each geological unit, based on the drillhole data. The block size (200 x 200 x 10m) has been chosen for providing a workable number of the blocks inside the geological model, considering the number of drill holes and arial extent. No assumptions were made regarding selective mining units and selective mining is difficult to apply in brine deposits, where the brine flows in response to pumping. No assumptions were made about correlation between variables. Lithium was estimated independently of other elements. The geological interpretation was used to define each geological unit and the property limits were used to enclose the Mineral Resources. The lithium concentration is not necessarily related to a particular lithology. No grade capping or cutting was used, as grades do not show extreme outliers. However, assessment of the sampling process and results suggests that a number of samples were most likely contaminated by drilling fluid, resulting in anomalously low lithium concentrations. This has been noted on many other lithium projects. The relevant low outlier (off-trend) lithium values were not used for Mineral Resource estimation, given concerns about their validity. Validation was performed using a series of checks including comparison of univariate statistics for global estimation bias, visual inspection against samples on plans and sections and swath plots. Visual validation shows a good agreement between the samples and the estimates.
Moisture	• *Whether the tonnages are estimated on a dry basis or*	Moisture content of the cores was not measured (porosity and density measurements were made), but as brine will be extracted by

Criteria	Explanation	Comments
	with natural moisture, and the method of determination of the moisture content.	pumping not mining, that is not relevant for the Mineral Resource estimation. Tonnages are estimated as metallic lithium dissolved in brine, which is converted to Lithium Carbonate Equivalent (LCE) by a factor of 5.323.
Cut-off parameters	• *The basis of the adopted cut-off grade(s) or quality 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 Resources may not always be rigorous. Where this is the case, this should be reported with an explanation of the basis of the mining assumptions made.*	The Mineral Resource has been quoted in terms of brine volume, concentration of dissolved elements, contained lithium and LCE. No mining or recovery factors have been applied (because the use of the specific yield (equivalent to drainable porosity) reflects the reasonable prospects for economic extraction with the proposed mining methodology). There are lithium brine operations that have been extracting and producing lithium products in Argentina and Chile for over 25 years. Dilution of brine concentrations is likely to occur over time and typically there are lithium losses in both the ponds and processing plant in conventional brine mining operations which are estimated as part of the delineation of an Ore Reserve. Potential dilution will be estimated in the groundwater model simulating brine extraction to define the Project's Ore Reserve. The conceptual mining method is recovering brine from beneath the gravels via a network of wells, the established practice on existing lithium brine projects. Detailed hydrologic studies of the Project area and basin will be undertaken as the Project develops further. This would support future groundwater modelling to define the Project's Ore Reserve and extraction rate.
Metallurgical factors or assumptions	• *The basis for assumptions or predictions regarding metallurgical amenability. It is always necessary as part of the process of determining reasonable prospects for eventual economic extraction to consider potential metallurgical methods, but the assumptions regarding metallurgical treatment processes and parameters made when reporting Mineral Resources may not always be rigorous. Where this is the case, this should be reported with an explanation of the basis of the metallurgical assumptions made.*	The preferred brine processing route has yet to be determined by test work to establish the optimum process. The characteristics of the brine are very similar to the public information on the Olaroz and Olaroz-Cauchari projects owned by Allkem and Lithium Argentina respectively. Consequently, there is confidence conventional pond evaporation and processing is feasible. However, with recent developments in direct lithium extraction (DLE) technology and the 25-year experience of producer Livent Corporation (NYSE:LTHM) using one form of this, the possibilities of direct extraction are yet to be fully evaluated but are also a likely feasible means of producing saleable lithium end product. Process test work (which can be considered equivalent to metallurgical test work) is proposed to be carried out on the Project brine. The DLE extraction to be undertaken by Lanshen to produce lithium carbonate can be considered as a commercial scale pilot plant, to produce lithium carbonate.
Environmental factors or assumptions	• *Assumptions made regarding possible waste and process residue disposal options. It is always necessary as part of the process of determining reasonable prospects for eventual economic extraction to consider the potential environmental impacts of the mining and processing operation. While at this stage*	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 Argentina Olaroz-Cauchari lithium projects to the south of the Solaroz Project are fully permitted and the Olaroz Project has been extracting brine since 2015. In this context, the Project is more comparable to a brownfields project.

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

Criteria	Explanation	Comments
		exploration, with complete laboratory porosity data not yet received for all holes. The Inferred Resource is defined using the suggestion of Houston et. Al. (2011) of 7 to 10km for distances between holes for Inferred classification. The northern extent of the Northern Block is slightly less than 10km from SOZDD007. There is extensive geophysical coverage of this property and SOZDD007 has improved the interpretation in this area. Consequently, there is reasonable confidence in the continuity of geology and porosity within the Mineral Resource area and the lithium concentration variation laterally and vertically will be better defined by further drilling. 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 upgraded estimate has not been independently audited or reviewed. An internal 'sense check' has been conducted with a simple volumetric estimate.
Discussion of relative accuracy/ confidence	• *Where appropriate a statement of the relative accuracy and confidence level in the Mineral Resource estimate using an approach or procedure deemed appropriate by the Competent Person. For example, the application of statistical or geostatistical procedures to quantify the relative accuracy of the Resource within stated confidence limits, or, if such an approach is not deemed appropriate, a qualitative discussion of the factors that could affect the relative accuracy and confidence of the estimate.* • *The statement should specify whether it relates to global or local estimates, and, if local, state the relevant tonnages, which should be relevant to technical and economic evaluation. Documentation should include assumptions made and the procedures used.* • *These statements of relative accuracy and confidence of the estimate should be compared with production data, where available.*	Univariate statistics for global estimation bias, visual inspection against samples on sections and swath plots were evaluated to detect any spatial bias and shows a reasonable agreement between the samples and the estimate. The model is highly sensitive to specific yield values used. The BMR values used for the estimation are generally less than the specific yield laboratory values.

Table 6 - Drillhole Collar Location, Azimuth and Depth for Diamond Core Holes SOZDD001 to SOZDD008

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
SODDD04R	3427673	7419384	3905	90	0	522
SOZDD005	3425076	7416791	3909	90	0	689
SOZDD006	3425341	7419415	3915	90	0	623
SOZDD007	3436083	7427413	3910	90	0	695
SOZDD008	3428343	7421517	3918	90	0	360.6
TOTAL						**5,087.1**

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[13]

(b) SOZDD002 – Drilling was terminated due to unstable drill hole conditions[14]

(c) SOZDD003 – Drilling was terminated due to drill rig limitations; the hole was still in lithium brine mineralisation (hosted in sand units and fine gravels); the full depth of lithium mineralisation is yet to determined[15]

(d) SOZDD004 - - Drillhole completed[16]

(e) SOZDD04R is a twin-hole located 10 metres from SOZDD004; due to challenges encountered with completing SOZDD004. This adjacent hole for geophysical hole logging was drilled (at the drilling company's cost).[17]

(f) SOZDD005 - - Drillhole completed[16]

(g) SOZDD006 - Drillhole completed[18]

(h) SOZDD007 – Drilling was terminated in the lower aquifer (Unit C) due to drill rig issues; geophysical hole logging was unable to be undertaken due to drill hole conditions

(i) SOZDD008 – Drilling was terminated in the interpreted tertiary bedrock and geophysical hole logging was completed

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13 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

14 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

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

16 Refer also 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, 19 April 2023: Holes 4 and 5 Encounter Significant Intersections of Conductive Brines at Solaroz Lithium Project and 29 August 2023: Lithium Mineralisation Encountered in Northern Solaroz Concession

17 Refer LEL ASX Announcement dated 29 August 2023: Lithium Mineralisation Encountered in Northern Solaroz Concession

18 Refer also LEL ASX Announcement dated 27 July 2023: Highest Lithium Concentrations Encountered at Solaroz Lithium Project in Hole 6 and 29 August 2023: Lithium Mineralisation Encountered in Northern Solaroz Concession

Table 7 - Consolidated Results of Relevant Lithium Assays from Brine Samples – SOZDD001 to SOZDD008

Hole	Hole Depth Range		Li	Mg	Mg/Li	Hole	Hole Depth Range		Li	Mg	Mg/Li
	From (m)	To (m)	(mg/l)	(mg/l)	Ratio		From (m)	To (m)	(mg/l)	(mg/l)	Ratio
SOZDD001	72.6	74.1	**158**	363	2.3	SOZDD004	552.5	575.5	**493**	709	1.4
SOZDD001	75.6	79.4	**101**	226	2.2	SOZDD004	600.5	623.5	**482**	751	1.6
SOZDD001	93.6	97.1	**399**	931	2.3	SOZDD004	624	647.5	**501**	786	1.6
SOZDD001	111.6	115.1	**414**	968	2.3	SOZDD005	86.5	110.5	**243**	473	2
SOZDD001	129.6	133.1	**416**	962	2.3	SOZDD005	110	134.5	**295**	540	1.8
SOZDD001	147.6	153.3	**270**	650	2.4	SOZDD005	111.3	112.9	**315**	580	1.8
SOZDD001	227	229.5	**555**	1201	2.2	SOZDD005	134	158.5	**305**	562	1.8
SOZDD001	268	274.4	**517**	1074	2.1	SOZDD005	158.5	182.5	**301**	561	1.9
SOZDD001	275	293	**485**	739	1.5	SOZDD005	182.5	206.5	**345**	654	1.9
SOZDD002	191	193	**127**	279	2.1	SOZDD005	230.5	254	**421**	771	1.8
SOZDD002	193	204	**199**	438	2.2	SOZDD005	254.5	278.5	**433**	709	1.6
SOZDD002	206.5	211	**242**	526	1.9	SOZDD005	278.5	302.5	**439**	718	1.6
SOZDD002	211	226	**256**	524	2	SOZDD005	302.5	326	**408**	775	1.9
SOZDD002	226	228	**149**	306	2.1	SOZDD005	326.5	350.5	**356**	684	1.9
SOZDD002	266	268	**162**	313	1.9	SOZDD005	350.5	374	**430**	712	1.7
SOZDD002	281	283	**162**	308	1.9	SOZDD005	374.5	398.5	**468**	740	1.6
SOZDD002	284	301	**125**	278	2.2	SOZDD005	398	422	**479**	684	1.4
SOZDD002	301	320	**295**	614	2.1	SOZDD005	422	446	**475**	755	1.6
SOZDD002	320	343	**339**	664	2	SOZDD005	446	470.5	**480**	850	1.8
SOZDD002	366	368	**266**	475	1.8	SOZDD005	470	494	**472**	905	1.9
SOZDD002	368	391	**294**	564	1.9	SOZDD005	494.5	518.5	**490**	703	1.4
SOZDD002	392	415	**294**	556	1.9	SOZDD005	518.5	542.5	**495**	717	1.5
SOZDD002	416	439	**325**	609	1.9	SOZDD005	542.5	566.5	**492**	746	1.5
SOZDD003	177.9	194	**299**	587	2	SOZDD005	566.5	602.5	**486**	885	1.8
SOZDD003	195.5	212	**342**	607	1.8	SOZDD005	590.5	614.5	**507**	928	1.8
SOZDD003	215.5	230	**389**	821	2.1	SOZDD005	614	638	**496**	798	1.6
SOZDD003	231.5	246.5	**397**	866	2.2	SOZDD006	67	71	**25**	187	7.5
SOZDD003	246.5	266	**390**	863	2.2	SOZDD006	134	152	**214**	509	2.4
SOZDD003	266.5	284.5	**387**	780	2	SOZDD006	152.2	176.5	**327**	785	2.4
SOZDD003	539.5	550	**349**	659	1.9	SOZDD006	176.5	200	**331**	708	2.1
SOZDD003	550	553	**395**	728	1.8	SOZDD006	200.5	224.5	**354**	741	2.1
SOZDD003	557	589	**383**	704	1,83	SOZDD006	227.5	248.5	**372**	813	2.2
SOZDD004	51	60	**111**	630	5.7	SOZDD006	272.5	296.5	**328**	666	2.0
SOZDD004	71	80	**184**	504	2.7	SOZDD006	296.5	320	**448**	675	1.5
SOZDD004	80	90	**223**	528	2.4	SOZDD006	344	368	**483**	880	1.8
SOZDD004	90	100	**224**	530	2.4	SOZDD006	416	440	**543**	799	1.5
SOZDD004	111	120	**298**	566	1.9	SOZDD006	488	512	**594**	1133	1.9
SOZDD004	121	144	**220**	442	2.0	SOZDD007	23	25	**10**	14	1.4
SOZDD004	145	168	**215**	423	2.0	SOZDD007	56	61	**10**	17	1.7
SOZDD004	168	192	**215**	443	2.1	SOZDD007	85	90	**10**	18	1.8
SOZDD004	193	216	**288**	593	2.1	SOZDD007	135	140	**10**	10	1.0
SOZDD004	217	240	**302**	624	2.1	SOZDD007	170	185	**38**	207	5.4
SOZDD004	241	264.5	**288**	593	2.1	SOZDD007	185	209	**133**	463	3.5
SOZDD004	265	287.5	**239**	494	2.1	SOZDD007	209	233	**386**	855	2.2
SOZDD004	336	360	**424**	627	1.5	SOZDD007	233	257	**483**	1379	2.9
SOZDD004	360	384	**508**	655	1.3	SOZDD007	281	305	**400**	793	2.0
SOZDD004	384.5	407.5	**500**	638	1.3	SOZDD008	170.5	194.5	**311**	666	2.1
SOZDD004	408.5	431.5	**461**	623	1.4	SOZDD008	194.5	218.5	**355**	759	2.1
SOZDD004	432	456.5	**474**	668	1.4	SOZDD008	218.5	242.5	**389**	808	2.1
SOZDD004	456	480	**482**	790	1.6	SOZDD008	242.5	266	**441**	807	1.8
SOZDD004	480	504	**456**	719	1.6	SOZDD008	266	290.5	**451**	790	1.8

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