



29 October 2021

## Lithium Australia quarterly activities report – September 2021

Lithium Australia NL (ASX: LIT, 'the Company') is pleased to provide the following update on the business activities of it and its subsidiaries for the quarter.

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### HIGHLIGHTS

#### ■ Batteries – Lithium ferro phosphate ('LFP') cathode materials

The Company seeks to take advantage of the fast-growing LFP market, with Chinese battery installations into LFP electric vehicles ('EVs') up 309% year on year to 30 September 2021. An application for a Modern Manufacturing Initiative – Collaboration Stream grant from the federal government will, if successful, facilitate development by the Company of an LFP cathode plant in Australia.

#### ■ Recycling – Envirostream Australia Pty Ltd ('Envirostream')

- Licensing and permitting activities continued with the Environmental Protection Agency Victoria ('EPA Vic') and Hume City Council (licensing and permits obtained subsequent to the quarter).
- The national battery stewardship scheme ('the Scheme') developed by Australia's Battery Stewardship Council ('BSC'), scheduled for roll-out in January 2022, will have a positive financial impact on recycling revenue.
- Sales of \$0.479 million for the quarter, a 22% increase on that of June '21.
- The second fertiliser micronutrient field trial programme continues, with plant tissue sampling completed.
- International patent applications filed for recycled battery resource recovery.

#### ■ Lithium chemicals

- LieNA<sup>®</sup> application approved for grant in Europe.
- LieNA<sup>®</sup> intellectual property ('IP') bolstered with patent approvals.
- First-generation SiLeach<sup>®</sup> patent application granted in Canada.

#### ■ Raw materials

- Charger Metals NL (ASX: CHR, 'Charger') successfully listed on the ASX. Pursuant to the sale and joint venture agreement, the Company retains a 30% free carry in most projects and a 19.6% interest in Charger.
- Completion of transfer formalities of 100% of Lepidolite Hill tenements to the Company.

#### ■ Corporate

- Strong working capital position (as of 30 September '21, cash of \$12.8 million and no debt).
- A total of \$3.7 million raised by the issue of fully paid shares.
- ESG development advanced through the Company's admission into the Global Battery Alliance and development of an ESG roadmap.





## Batteries

### VSPC Ltd ('VSPC')

VSPC specialises in research into, and the production of, high-purity, high-performance battery materials and derivatives at its R&D facility in Brisbane, Queensland. These materials include LFP and lithium manganese ferro phosphate ('LMFP') cathode powders, as well as lithium titanium oxide (LTO) anode powders.

#### **Comment on the sector**

On 13 September 2021, Argus Media ('Argus') reported that, in the first eight months of 2021, LFP-type lithium-ion batteries ('LIBs') accounted for 52% of total LIB production, tipping the scales to LFP dominance. Currently, China is the world's largest producer of LFP and LFP-type LIBs by far, accounting for 98% of such battery production globally.

The pace at which LFP production is outstripping other battery chemistries continues to exceed predictions. In its October 2021 article, Argus stated that the installation of LFP batteries into EVs within China increased 309% annually for the year to 30 September 2021. The equivalent increase for September 2021 was 32%.

Also during the year, in August, some 309,000 'new-energy vehicles' were produced – a figure up 180% from 12 months ago. Thus, even with COVID-19 creating chaos worldwide, the energy markets are changing at pace.

#### **LFP and LMFP – product development**

VSPC has conducted extensive research in order to develop LMFP, a high-capacity LIB cathode powder containing no nickel or cobalt. LMFP is a lower-cost and safer cathode material for applications requiring higher-energy density batteries, including EVs and large-scale stationary energy storage. Both LFP- and LMFP-type LIBs are cheaper, safer and longer lasting than their NCA (lithium nickel cobalt aluminium) and NMC (lithium nickel manganese cobalt) battery counterparts. Indeed, it is the superior performance criteria of LFP and LMFP that have led to the market shift away from nickel-based LIB formulations, with market-leading battery and EV producer BYD phasing out nickel/cobalt-based batteries altogether in preference to LFP. Tesla too is transitioning to LFP for its Megapack grid-scale battery energy storage systems and low-range EVs, and VW's entry-level EVs will also be LFP-powered.

LMFP provides all the advantages of LFP plus greater energy density, which in EV terms equates not just to greater safety and longer life but also more range.

VSPC's second-generation LMFP, which has met industry performance and physical property benchmarks, has been dispatched to several established and potential VSPC customers for testing in commercial-format LIBs, while VSPC cathode material is being tested in China, the United Kingdom, Europe, Canada, Israel and South Korea.

While it continues to evaluate opportunities to expand its LFP and LMFP production to a commercial scale offshore, VSPC has also applied for a Modern Manufacturing Initiative – Collaboration Stream grant from the federal government. If successful, this could help VSPC develop a supply chain for the battery industry in Australia.



## **IP update**

The Australian Patent Office has granted Patent Number 2020203801, with an earliest priority date of 2020-06-09, for the VSPC process entitled 'Method for making lithium metal phosphates'. The patent, which will provide VSPC with 20 years of IP protection in Australia, is the first step in VSPC's quest for worldwide patent protection of this IP.

Over the past several years VSPC has simplified and adapted certain elements of its proprietary nanotechnology to enable its use of a broader range of raw materials. This led VSPC to develop a process that includes novel and inventive steps, and hence to the granting of this patent.

By harnessing lithium phosphate as a cathode powder precursor, VSPC's newly patented process has the potential to reduce the number of steps from the mining of ore to the production of battery cathode materials and, ultimately, new LIBs. This process, relative to the production of LIB cathode materials in general, offers the following competitive advantages.

- Flexibility with the lithium raw material used – this can be lithium phosphate, lithium carbonate or lithium hydroxide.
- Precise upfront control of the chemistry to reliably deliver products consistent in terms of their chemical and physical properties.
- The flexibility to control particle characteristics, including size, at both a nano- and micro-scale.
- Simplified final-stage processing/product finishing.
- Lower energy consumption overall.
- Higher yields from raw materials.
- Optimised product morphology for energy-storage applications and, potentially, for defence and space applications.
- The process has been shown to reduce input chemical costs by 15% when benchmarked against traditional production costs.

## **Staffing update**

During the quarter, VSPC appointed scientist Dr Anand Bhatt to lead its research and product development programme.

Subsequent to quarter's end, Ms Merrill Gray retired as executive director of VSPC and was replaced by Mr Andrew Skalski, who previously held the position of Manager – Projects with the Company. Mr Andrew Napier was internally promoted to the position of Manager – Technical Services, replacing Mr Skalski. There will be no change to current work programmes.

## **Soluna Australia Pty Ltd**

Soluna Australia Pty Ltd ('Soluna Au') markets battery energy storage systems for residential and industrial applications. In a highly competitive market, interest in Soluna Au's products continues, with first sales and installation of its Power Bank systems for residential applications commencing in July 2020. The products comprise LIB storage, a



hybrid inverter and an advanced battery management system (technical details can be found at <https://soluna.com.au/>).

During the September '21 quarter, Soluna Au sold 10 residential battery units (June '21 quarter, 10) and posted sales of \$66,000 (June '21 quarter, \$71,000).

The Company continues to review this division.

## Recycling – Envirostream

As the national leader in mixed-battery recycling, 90% Company-owned subsidiary Envirostream offers sustainable solutions for the disposal of end-of-life ('EOL') batteries and the re-birthing of energy metals recovered from spent LIBs. As Australia becomes more environmentally aware by diverting spent batteries from landfill (it is anticipated that the national BSS will greatly enhance this), Envirostream is preparing for increased volumes of such EOL batteries – and thus operational growth over the next 12 months – to cater for the anticipated influx. That includes the development of additional battery-recycling sites within Australia and the potential for expansion of operations offshore.

### EOL battery volumes in Australia

Currently in Australia, battery recycling rates are extremely low. According to the Battery Stewardship Council's report *Australian Battery Market Analysis* (June 2020), EOL batteries available for recycling currently total around 22,000 tonnes per annum ('tpa'), with most still consigned to landfill. By 2035, says the report, the volume of EOL batteries in Australia is expected to exceed 106,000 tpa and by 2040 rise to 218,000 tpa.

On that basis, and environmental considerations aside, the value of the contained metal in spent LIBs in Australia alone could be as much as \$3 billion per annum by 2036 (King, S. *et al*, 2018: CSIRO report EP181926, *Lithium Battery Recycling in Australia*).

### The Scheme

In September 2020, the ACCC [authorised the BSC](#) to establish and operate a national programme for managing EOL batteries, the intent being to commoditise them by placing a levy on new batteries at the point of sale; this would supplement the cost of subsequent collection and recycling. For Envirostream, implementation of the Scheme (expected from January 2022) should greatly increase the volume of EOL batteries available to recycle, as well as significantly increasing margins on its collection and recycling operations.



## Preparations for increased volumes and growth

In the September '21 quarter, EOL batteries collected by Envirostream totalled 141 tonnes (June '21 quarter, 203 tonnes), with battery collection significantly hampered by the COVID-19 lockdowns in Melbourne. During the quarter, Envirostream continued to focus on its preparations for the anticipated significant growth in the number of EOL batteries available for collection and recycling.

In the September '21 quarter, the volume of spent LIBs processed by Envirostream was 56 tonnes (June '21 quarter, 64 tonnes). Envirostream has appreciable excess capacity and can thus ramp up its operations.

Envirostream made two shipments of mixed metal dust ('MMD'), derived from spent LIBs, during the quarter (June '21 quarter, one) and finished the quarter with 14 tonnes of MMD inventory.

Also during the quarter, Envirostream's copper, aluminium and plastic separation ('CAPS') circuit was recommissioned, despite supply difficulties and the restriction of movement of service personnel consequent to COVID-19. Work on CAPS continues at Envirostream, to ensure that value is added downstream for the mix of plastics.

## Financial summary Q1 – battery recycling

Total battery recycling revenue for the quarter increased 22% (compared to the previous quarter) to \$0.479 million (June '21 quarter, \$0.393 million).

As noted, the Scheme is expected to increase the amount of EOL batteries made available for recycling. With the federal government investing \$1 million to aid implementation of the Scheme, and battery manufacturers Energizer and Duracell committing funds, Envirostream will continue to invest in its collection infrastructure and expand on its proven processing success to grow ahead of the predicted expansion.

## Safety, the environment and permitting

During the quarter, Envirostream continued to liaise with the EPA Vic for a permit to operate a scheduled premise for one of its Melbourne locations, in order to operate above 500 tpa of specified electronic waste. The EPA Vic application moved through a number of key process steps, as demonstrated by the granting of the licence subsequent to quarter's end.

Envirostream's plant in Melbourne is now an EPA-permitted facility capable of recycling greater than 500 tpa of specified electronic waste to produce a range of products, among them MMD.

In addition, Envirostream continues its implementation of multiple industry-wide improvements, to ensure that its multi-site, multi-channel battery collection, storage and processing activities are conducted in a manner that mitigates any risks associated with such activities, particularly fire.

The main challenge for Envirostream (and for battery collectors and recyclers globally) is the risk of fire resulting from improper handling of different types of EOL batteries at their collection points. Given the wide range of battery types available, and the confusion that

can arise during their sorting and separation, Envirostream is conducting ongoing research and development of fire-resistant EOL battery containers for use throughout its collection network.

## 2021 fertiliser micronutrient trials

### ***Collaboration with Summit Fertilizers ('Summit')***

The Company is pleased to continue its collaboration with Summit Fertilizers ('Summit'). A leading fertiliser supplier established in 1989, Summit has over the years introduced several innovations to the West Australian ('WA') market. With a highly experienced area manager network and dedicated field research team, Summit aims to help its customers use nutrients that achieve the best outcomes.

Summit provided access to three of its 2021 trial sites, two seeded with wheat and one with lupins, to allow assessment of Envirostream's products.

### ***Expanded trial programme***

The micronutrient trial programme was expanded to four sites in WA (three Summit sites and one dedicated Envirostream site) and one dedicated Envirostream site in South Australia ('SA'), thereby permitting performance assessments of the recycled battery material across varying broadacre soil types. Envirostream's micronutrients are again being agglomerated with mono-ammonium phosphate ('MAP') fertiliser.

This year, the number of treatments at the two Envirostream trial sites was expanded from five ([see ASX announcement 10 June 2020](#)) to nine. Manganese uptake response is expected to be similar to or better than that noted in the 2020 trial ([see ASX announcement 18 February 2021](#)).

Both Envirostream's trial sites are being seeded with wheat crops. Treatments used in the 2021 programme at the Envirostream sites include the following.

- No fertiliser (control).
- Summit MAP at two target phosphate addition rates.
- Summit MAP and manganese (full compound), blended with Summit MAP, at two target phosphate addition rates.
- Envirostream agglomerated MAP product 1, at two target phosphate addition rates.
- Envirostream agglomerated MAP product 2, at two target phosphate addition rates.

The two Envirostream product options employed are derived from its proprietary separation technology for single-use alkaline batteries. Any performance differences between these options are to be assessed.

### ***Plant tissue sampling***

Plant tissue sampling was completed across all field trial sites during August and September 2021, with results in line with previous trials supporting manganese uptake from Envirostream treatments in a range of field settings.

The images below are of Envirostream's dedicated trial sites during plant tissue sampling (at left, the SA trial site and at right, the WA trial site).



Final micronutrient uptake and yield performance, which will be confirmed after harvest, are expected to be available in the March quarter, 2022.

## Recycling IP

During the quarter, the Company filed several patent applications relating to Envirostream's recycling process for alkaline batteries.

The provisional patent application entitled 'Process for recovering values from alkaline batteries', with the reference Australian Provisional Patent Application 2021902192, describes processes for the separation of electrode materials (comprising, for example, cathode material and/or an anode) from alkaline batteries. That process was used to generate the samples applied in the Envirostream 2021 field trial programme ([see ASX announcement 1 June 2021](#)).

The PCT application 'Process for recovering values from batteries' – reference number PCT/AU2021/050886 – describes a size-selective process for recovering electrode material from LIBs, including as MMD comprising both cathode and anode powders.

The PCT application 'Process for recovering values from process liquors' – reference number PCT/AU2021/050887 – describes processes for the selective recovery of mixed metal sulphates (such as a mixed cobalt-nickel sulphate) from a metal sulphate process liquor following leaching of MMD recovered from LIBs.

## Lithium chemicals

The Company continues with research into and development of its proprietary extraction processes for the conversion of *all* lithium silicates (including mine waste), and of unused fines from conventional conversion of spodumene, to lithium chemicals. These processes can recover lithium in several forms, including lithium hydroxide, lithium carbonate and lithium phosphate.

Two potentially disruptive lithium processing technologies developed by the Company are **SiLeach**<sup>®</sup>, for the processing of lithium micas, and **LieNA**<sup>®</sup>, for the recovery of lithium from fine and low-grade spodumene.



Both processes can produce a range of lithium chemicals; however, lithium phosphate is the Company's preferred option. In combination with VSPC's patented nanotechnology, this option permits the production of battery cathode materials direct from lithium phosphate recovered from either silicate minerals or spent LIBs – without the need for an intermediate step to produce lithium hydroxide or carbonate. There is thus the potential to reduce the process steps required to produce cathode materials for new LIBs.

## LieNA®

One of the great dilemmas of the lithium industry is the inability of conventional processing systems to deal with fine or low-grade spodumene generated by concentrators. The Company's patented LieNA® process provides a practical industrial solution to that problem.

At present, fine and/or low-grade spodumene is generally discharged to either waste or tailings by producers seeking to achieve the high-grade offtake demanded by the mineral concentrate market. LieNA®, however, can recover lithium from this type of material, which amounts to most of the lithium 'lost' during spodumene concentrate production and thus represents a significant opportunity to increase ore reserves and improve resource utilisation without increasing mining costs.

### ***The pathway to commercialisation***

The construction and operation of a LieNA® pilot plant is the next step on the pathway to commercialisation. In February 2020, the federal government awarded a CRC-P (Cooperative Research Centres Projects) grant to co-fund the construction and operation of that pilot plant. While COVID-19 has created some delays, construction of the pilot plant is now underway, with completion scheduled for early next year. A 60-litre batch autoclave is also under construction, with delivery on track for the December '21 quarter.

Pre-pilot plant bench-scale test work progressed during the September quarter, using samples from a 650-kilogram pilot plant concentrate parcel. The concentrate parcel, prepared from drill cuttings (bulk field sample) obtained from a spodumene prospect in the Goldfields of WA, will be used as feed material for the pilot-plant programme.

### ***Recognition of IP***

A decision to grant the first-generation patent application PCT/AU2017/050808 was received from the European Patent Office, with national phase assessments ongoing in Canada, China, Brazil. Meanwhile, assessment of the second-generation patent application PCT/AU2019/050773 remains ongoing, with national phase assessments progressing in Brazil, China and the United States.

## SiLeach®

### ***Recognition of IP***

The Company has received a certificate of grant (Patent No 3013941) for its first generation SiLeach® patent application from the Canadian Patent Office. National phase assessment remains in progress for Chile and Brazil, with country validation commenced in the Czech Republic, Ireland, Italy and Poland.



Patent application PCT/AU2019/050541 details the second-generation SiLeach® patent application, which has commenced national phase entry in Brazil, Canada, Chile, Europe, the United States and Australia.

## Other chemicals IP

Patent application PCT/AU2019/050540 details the recovery of lithium chemicals from lithium-bearing liquors such as brine and pregnant leach solutions. This technology, developed during the SiLeach® test work programme, provides a pathway for the refining of the tri-lithium phosphate produced by either SiLeach® or LieNA® to the standards required to produce LFP. It gives the Company's production process definite advantages over conventional recovery methods that result in the production of lithium hydroxide or lithium carbonate.

The application was published by the United States Patent and Trademark Office, with national phase entry into Chile commencing during the quarter.

## Raw materials

### Charger initial public offering ('IPO')

The Company has reduced its exposure to high-risk exploration activities following the successful listing of Charger. The Company's shareholders were offered a priority allocation in the IPO.

The Company can confirm completion of its sale and joint-venture terms with Charger. Under the agreement, Charger exercised its option to acquire certain exploration projects from the Company for consideration of \$100,000 and 9.6 million shares, escrowed until 6 July 2023. The exploration projects acquired by Charger are listed below.

- The **Coates project**, located in the highly prospective Western Yilgarn nickel/copper/platinum group elements belt, located approximately 20 kilometres ('km') from the Julimar discovery of Chalice Mining Limited (ASX: CHN, 'Chalice', formerly Chalice Gold Ltd) in WA, in a similar geological environment.
- The **Lake Johnston project**, near Southern Cross in WA, which is prospective for lithium, gold and nickel, has outcropping lithium (spodumene) pegmatites and is located approximately 70 km east of the world-class Earl Grey/Mt Holland lithium deposit now being developed by Wesfarmers Ltd and SQM.
- The **Bynoe project**, near Darwin in the Northern Territory, which is prospective for lithium and gold and is proximal to the Finnis lithium project of Core Lithium Limited (ASX: CXO); that project is at a very advanced stage of development, with a definitive feasibility study completed.

By structuring free carries at project level and holding 19.6% equity in Charger, the Company has retained upside in these assets. This is a strategic move which potentially preserves access to lithium deposits that may provide feed to future Company mineral processing and chemical production activities.



## Greenbushes South project

Galan Lithium Ltd ('Galan') has acquired 80% of the Company's Greenbushes South lithium project. The project – located 200 km south of Perth, WA and with an area of 353 km<sup>2</sup> – commences around 3 km south of the current Greenbushes open-pit lithium mining operation and covers the southern strike projection of the geological structure hosting that mine.

The Company, which has entered into an unincorporated joint venture with Galan (Galan 80%, Company 20%), was issued 1,221,000 fully paid ordinary shares in the capital of Galan (held as at 30 September 2021).

Galan will fully fund all exploration expenditure share until a preliminary feasibility study has been completed.

## Corporate overview

As a leader in battery-material processing, the Company aims to ensure an ethical and sustainable supply of energy metals to the battery industry (enhancing energy security in the process) to create a circular economy for battery materials. A seamless LIB production cycle can minimise the number of steps needed to progress from mining through to the production of cathode materials and batteries and, ultimately, the re-birthing of spent LIBs.

The Company controls a suite of proprietary technologies designed for the following.

- Recycling of mixed EOL batteries, with a strong focus on energy-metal recovery from spent LIBs.
- The manufacture of advanced cathode and anode powders for LIBs.
- Recovery of lithium from ore and waste materials (including spent LIBs).

As of 30 September 2021, the Company had cash reserves of \$12.8 million (30 June 2021, \$11.4 million) and no debt.

During the quarter, a total of \$3.7 million was raised by the issue of fully paid shares. Of that total, \$1.5 million was raised by LITCF shareholders fully paying up their LITCF partly-paid shares and an option holder converting options, with \$2.2 million raised via placements to Acuity Capital under the Controlled Placement Agreement.

A total of 29 million LITO options expired unexercised on 4 July 2021.

The successful listing of Charger and the farming out of most of its exploration assets has significantly reduced the Company's exposure to high-risk exploration while retaining upside in value creation across these assets. The Company retains a 19% investment in Charger and a 30% free carried interest in Charger's projects.

## ESG roadmap

During the quarter, the Company developed an ESG (environmental, social and governance) roadmap and will release its first sustainability report in FY22. The Company's ESG framework – which includes a commitment to measuring (and in time



reducing) its carbon footprint right across the business – will adhere to the highest international standards, to ensure that outcomes are delivered in the most sustainable manner.

The Company's aim of creating a circular battery economy begins with exploration for battery metals and ends with the recycling of EOL batteries. Circular economy technologies have the potential to transform the LIB supply chain by improving energy efficiency and energy metals recovery while reducing the volume of EOL batteries being consigned to landfill with potentially negative environmental outcomes.

Working with independent ESG specialists Futureproof Consulting, the Company recently completed a stakeholder engagement and materiality assessment. This identified several risks and opportunities that will inform the Company's sustainability goals and reporting. Material topics include workplace health and safety, critical risk management, resource recovery and circularity, water management, sustainable products, waste and landfill management, greenhouse gas emissions and corporate governance. More information on these can be found in the sustainability section of the Company's FY21 annual report.

The Company's ESG roadmap will ensure that all its projects are developed in a responsible and balanced way, with appropriate resources and focus allocated to the material topics summarised below.

FY21	FY22	FY23
<ul style="list-style-type: none"> <li>▪ ESG project team formed.</li> <li>▪ Peer and industry sustainability review.</li> <li>▪ Key stakeholders mapped.</li> <li>▪ Material topics identified.</li> <li>▪ Sustainability positioning articulated.</li> <li>▪ ESG roadmap developed.</li> <li>▪ Carbon footprint project commenced.</li> </ul>	<ul style="list-style-type: none"> <li>▪ Use GRI and WEF frameworks to determine scope and capture data baselines across all material topics.</li> <li>▪ Review of all current Company policies.</li> <li>▪ Complete carbon footprint project.</li> <li>▪ Publish climate risk strategy and TCFD roadmap.</li> <li>▪ Publish inaugural sustainability report.</li> </ul>	<ul style="list-style-type: none"> <li>▪ Stakeholder engagement and materiality reassessment.</li> <li>▪ Assess modern slavery risk requirements.</li> <li>▪ Assess inclusion of ESG targets in executive remuneration.</li> <li>▪ Supply chain engagement.</li> <li>▪ Second sustainability report, aligned to either WEF or GRI frameworks.</li> </ul>

The Company will also consider the goals, and follow the recommendations of, the United Nations' Sustainable Development Goals ('SDGs') to inform its sustainability planning and map its progress. Affordable and Clean Energy (SDG 7) and Responsible Consumption and Production (SDG 12) are both priority goals for the Company.

Authorised for release by the Board.

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## About Lithium Australia

Lithium Australia NL ('the Company') aims to ensure an ethical supply of energy metals to the battery industry by creating a circular battery economy that enhances both sustainability and resource security. Reprocessing spent lithium-ion batteries to create new ones is intrinsic to this plan, with the Company operating Australia's only fully integrated mixed-battery recycling business.

Having rationalised its portfolio of lithium projects/alliances, the Company continues its research into, and the development of, proprietary extraction processes for the conversion of *all* lithium silicates (including mine waste), and of fines generally discarded during conventional spodumene conversion, to lithium chemicals, from which it will produce advanced cathode materials for the battery industry globally.

The Australian federal government has recognised the Company's progress through the awarding of substantial research grants designed to progress the nation's advanced battery capabilities.

By uniting resources and innovation, the Company seeks to vertically integrate lithium extraction, processing and recycling.

## Forward-looking statements

This document contains forward-looking statements. Forward-looking statements are necessarily based on a number of estimates and assumptions that, while considered reasonable by the Company, are inherently subject to significant technical, business, economic, competitive, political and social uncertainties and contingencies, involve known and unknown risks and uncertainties that could cause actual events or results to differ materially from estimated or anticipated events or results reflected in such forward-looking statements, and may include, among other things, statements regarding targets, estimates and assumptions in respect of commodity prices, operating costs and results, capital expenditures, ore reserves and mineral resources and anticipated grades and recovery rates and are, or may be, based on assumptions and estimates related to future technical, economic, market, political, social and other conditions.

The Company disclaims any intent or obligation to update publicly any forward-looking statements, whether as a result of new information, future events or results or otherwise. The words 'believe', 'expect', 'anticipate', 'indicate', 'contemplate', 'target', 'plan', 'intends', 'continue', 'budget', 'estimate', 'may', 'will', 'schedule' and other, similar expressions identify forward-looking statements. All forward-looking statements made in this presentation are qualified by the foregoing cautionary statements. Investors are cautioned that forward-looking statements are not guarantees of future performance and, accordingly, investors are cautioned not to put undue reliance on forward-looking statements due to the inherent uncertainty therein.

Many known and unknown factors could cause actual events or results to differ materially from estimated or anticipated events or results reflected in such forward-



looking statements. Such factors include, but are not limited to: competition; mineral prices; ability to meet additional funding requirements; exploration, development, operating and sales risks; uninsurable risks; uncertainties inherent in ore reserve and resource estimates; dependence on third-party smelting facilities; factors associated with foreign operations and related regulatory risks; environmental regulation and liability; currency risks; effects of inflation on results of operations; factors relating to title to properties; native title and Aboriginal heritage issues; dependence on key personnel, and share-price volatility. They also include unanticipated and unusual events, many of which it is beyond the Company's ability to control or predict.

### **Competent person's statement – Australian exploration**

The details in this report that relate to exploration strategy are based on information provided to and compiled by Mr David Crook BSc GAICD, a member of The Australian Institute of Mining and Metallurgy and the Australian Institute of Geoscientists.

Mr Crook, who provides the service of 'Manager – Raw Materials' to the Company, has sufficient experience relevant to the style of mineralisation and exploration processes under consideration 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*.

Mr Crook consents to the inclusion in the report of the matters, based on the information made available to him, in the form and context in which they appear.



## Appendix I – Mining and exploration tenement schedules

Details of mining tenements as at quarter ended 30 September 2021 (ASX Listing Rule 5.3.3)

### Australian projects

Tenement	Location	Registered holder	Beneficial interest		Notes
			Start	End	
E63/1777	Lake Johnston, WA	Lithium Australia NL	100%	30%	1,2b
E63/1722	Lake Johnston, WA	Lefroy Exploration Ltd	0%	0%	1,2a
E63/1723	Lake Johnston, WA	Lefroy Exploration Ltd	0%	0%	1,2a
E63/1805	Lake Johnston, WA	Lithium Australia NL	100%	30%	1,3
E63/1806	Lake Johnston, WA	Lithium Australia NL	100%	30%	1,3
E63/1809	Lake Johnston, WA	Lithium Australia NL	100%	30%	1,3
E63/1866	Lake Johnston, WA	Lithium Australia NL	100%	30%	1,3
E63/1903	Lake Johnston, WA	Lithium Australia NL	100%	0%	3
E70/4690	Greenbushes, WA	Lithium Australia NL	20%	20%	4
E70/4790	Greenbushes, WA	Lithium Australia NL	20%	20%	4
E70/5198	Wundowie, WA	Lithium Australia NL	100%	30%	3
E74/0543	Ravensthorpe, WA	Lithium Australia NL	0%	0%	
P15/5574	Coolgardie, WA	Lithium Australia NL	100%	100%	6
P15/5575	Coolgardie, WA	Lithium Australia NL	100%	100%	6
P15/5739	Coolgardie, WA	Lithium Australia NL	100%	100%	6
EL30897	Bynoe, NT	Lithium Australia NL	100%	30%	3,5
<b>Notes</b>					
1	Lithium Australia NL holds 30% of the lithium rights.				
2	(a) Rights Acquisition Agreement dated 17 August 2016 between Lefroy Exploration Ltd and Lithium Australia NL (b) Lefroy Exploration Limited gold and base metal rights sale agreement dated 10 March 2021				
3	Following the end of the quarter, Charger Metals NL exercised its option to acquire 70% interest under the Acquisition and Joint Venture Agreement (as amended). This does not include E63/1903 where CHR holds 100% of the tenement.				
4	JV agreement with GLN dated 13 January 2021 whereby LIT holds a 20% free-carried interest until completion of a PFS.				
5	Lithium Australia NL holds 30% of all mineral rights.				
6	Focus Minerals Limited acquisition agreement dated 16 September 2020 – FML retains a 1% royalty on all minerals.				
99	Tenement surrendered.				



## Appendix II – Payments to related parties of the entity and their associates

Payments made during the quarter and included in items 6.1 and 6.2 of Appendix 5b – Mining exploration entity quarterly cash flow report, comprise the following.

6.1 Aggregate amount of payments to related parties and their associates included in cash flows from operating activities – \$166,000.

This includes payments of directors' remuneration for services to the economic entity – \$159,000, and payment to directors' associates for services provided to the economic entity – \$7,000.



## Appendix 5B

### Mining exploration entity or oil and gas exploration entity quarterly cash flow report

Name of entity

Lithium Australia NL

ABN

29126129413

Quarter ended ("current quarter")

30 September 2021

Consolidated statement of cash flows		Current quarter \$A'000	Year to date (3 months) \$A'000
<b>1.</b>	<b>Cash flows from operating activities</b>		
1.1	Receipts from customers	580	580
1.2	Payments for		
	(a) exploration & evaluation	(119)	(119)
	(b) development	(328)	(328)
	(c) production	(848)	(848)
	(d) staff costs	(1,295)	(1,295)
	(e) administration and corporate costs	(865)	(865)
1.3	Dividends received (see note 3)	-	-
1.4	Interest received	14	14
1.5	Interest and other costs of finance paid	(2)	(2)
1.6	Income taxes paid	-	-
1.7	Government grants and tax incentives	141	141
1.8	Other (Jobkeeper and cashflow boost)	-	-
<b>1.9</b>	<b>Net cash from / (used in) operating activities</b>	<b>(2,722)</b>	<b>(2,722)</b>

<b>2.</b>	<b>Cash flows from investing activities</b>		
2.1	Payments to acquire or for:		
	(a) entities	-	-
	(b) tenements	-	-
	(c) property, plant and equipment	(446)	(446)
	(d) exploration & evaluation	-	-
	(e) investments	(69)	(69)
	(f) other non-current assets	(234)	(234)

## Mining exploration entity or oil and gas exploration entity quarterly cash flow report

Consolidated statement of cash flows		Current quarter \$A'000	Year to date (3 months) \$A'000
2.2	Proceeds from the disposal of:		
	(a) entities	-	-
	(b) tenements	100	100
	(c) property, plant and equipment	7	7
	(d) investments	-	-
	(e) other non-current assets	-	-
2.3	Cash flows from loans to other entities	-	-
2.4	Dividends received (see note 3)	-	-
2.5	Other (business combination)	-	-
<b>2.6</b>	<b>Net cash from / (used in) investing activities</b>	<b>(642)</b>	<b>(642)</b>

<b>3.</b>	<b>Cash flows from financing activities</b>		
3.1	Proceeds from issues of equity securities (excluding convertible debt securities)	3,692	3,692
3.2	Proceeds from issue of convertible debt securities (repayment of convertible debt)	-	-
3.3	Proceeds from exercise of options	-	-
3.4	Transaction costs related to issues of equity securities or convertible debt securities	-	-
3.5	Proceeds from borrowings	-	-
3.6	Repayment of borrowings	(127)	(127)
3.7	Transaction costs related to loans and borrowings	(5)	(5)
3.8	Dividends paid	-	-
3.9	Other (funds received from sale of forfeited partly paid shares)	1,166	1,166
<b>3.10</b>	<b>Net cash from / (used in) financing activities</b>	<b>4,726</b>	<b>4,726</b>

<b>4.</b>	<b>Net increase / (decrease) in cash and cash equivalents for the period</b>		
4.1	Cash and cash equivalents at beginning of period	11,370	11,370
4.2	Net cash from / (used in) operating activities (item 1.9 above)	(2,722)	(2,722)
4.3	Net cash from / (used in) investing activities (item 2.6 above)	(642)	(642)
4.4	Net cash from / (used in) financing activities (item 3.10 above)	4,726	4,726

## Mining exploration entity or oil and gas exploration entity quarterly cash flow report

<b>Consolidated statement of cash flows</b>		<b>Current quarter \$A'000</b>	<b>Year to date (3 months) \$A'000</b>
4.5	Effect of movement in exchange rates on cash held	(12)	(12)
<b>4.6</b>	<b>Cash and cash equivalents at end of period</b>	<b>12,720</b>	<b>12,720</b>

<b>5.</b>	<b>Reconciliation of cash and cash equivalents</b> at the end of the quarter (as shown in the consolidated statement of cash flows) to the related items in the accounts	<b>Current quarter \$A'000</b>	<b>Previous quarter \$A'000</b>
5.1	Bank balances	12,720	11,370
5.2	Call deposits	-	-
5.3	Bank overdrafts	-	-
5.4	Other (provide details)	-	-
<b>5.5</b>	<b>Cash and cash equivalents at end of quarter (should equal item 4.6 above)</b>	<b>12,720</b>	<b>11,370</b>

<b>6.</b>	<b>Payments to related parties of the entity and their associates</b>	<b>Current quarter \$A'000</b>
6.1	Aggregate amount of payments to related parties and their associates included in item 1	166
6.2	Aggregate amount of payments to related parties and their associates included in item 2	-

*The payments to directors or their associates in 6.1 and 6.2 include gross salaries, superannuation, director fees and consulting fees.*

<b>7.</b>	<b>Financing facilities</b> <i>Note: the term "facility" includes all forms of financing arrangements available to the entity. Add notes as necessary for an understanding of the sources of finance available to the entity.</i>	<b>Total facility amount at quarter end \$A'000</b>	<b>Amount drawn at quarter end \$A'000</b>
7.1	Loan facilities		
7.2	Credit standby arrangements	-	-
7.3	Other	-	-
7.4	<b>Total financing facilities</b>	-	-
7.5	<b>Unused financing facilities available at quarter end</b>		
7.6	Include in the box below a description of each facility above, including the lender, interest rate, maturity date and whether it is secured or unsecured. If any additional financing facilities have been entered into or are proposed to be entered into after quarter end, include a note providing details of those facilities as well.		

## Mining exploration entity or oil and gas exploration entity quarterly cash flow report

<b>8. Estimated cash available for future operating activities</b>	<b>\$A'000</b>
8.1 Net cash from / (used in) operating activities (item 1.9)	(2,722)
8.2 (Payments for exploration & evaluation classified as investing activities) (item 2.1(d))	-
8.3 Total relevant outgoings (item 8.1 + item 8.2)	(2,722)
8.4 Cash and cash equivalents at quarter end (item 4.6)	12,720
8.5 Unused finance facilities available at quarter end (item 7.5)	-
8.6 Total available funding (item 8.4 + item 8.5)	12,720
8.7 <b>Estimated quarters of funding available (item 8.6 divided by item 8.3)</b>	4.7
<i>Note: if the entity has reported positive relevant outgoings (ie a net cash inflow) in item 8.3, answer item 8.7 as "N/A". Otherwise, a figure for the estimated quarters of funding available must be included in item 8.7.</i>	
8.8 If item 8.7 is less than 2 quarters, please provide answers to the following questions:	
8.8.1 Does the entity expect that it will continue to have the current level of net operating cash flows for the time being and, if not, why not?	
Answer:	
8.8.2 Has the entity taken any steps, or does it propose to take any steps, to raise further cash to fund its operations and, if so, what are those steps and how likely does it believe that they will be successful?	
Answer:	
8.8.3 Does the entity expect to be able to continue its operations and to meet its business objectives and, if so, on what basis?	
Answer:	
<i>Note: where item 8.7 is less than 2 quarters, all of questions 8.8.1, 8.8.2 and 8.8.3 above must be answered.</i>	

**Compliance statement**

- 1 This statement has been prepared in accordance with accounting standards and policies which comply with Listing Rule 19.11A.
- 2 This statement gives a true and fair view of the matters disclosed.

Date: 29 October 2021

Authorised by: "By the Board"  
(Name of body or officer authorising release – see note 4)

**Notes**

1. This quarterly cash flow report and the accompanying activity report provide a basis for informing the market about the entity's activities for the past quarter, how they have been financed and the effect this has had on its cash position. An entity that wishes to disclose additional information over and above the minimum required under the Listing Rules is encouraged to do so.
2. If this quarterly cash flow report has been prepared in accordance with Australian Accounting Standards, the definitions in, and provisions of, *AASB 6: Exploration for and Evaluation of Mineral Resources* and *AASB 107: Statement of Cash Flows* apply to this report. If this quarterly cash flow report has been prepared in accordance with other accounting standards agreed by ASX pursuant to Listing Rule 19.11A, the corresponding equivalent standards apply to this report.
3. Dividends received may be classified either as cash flows from operating activities or cash flows from investing activities, depending on the accounting policy of the entity.
4. If this report has been authorised for release to the market by your board of directors, you can insert here: "By the board". If it has been authorised for release to the market by a committee of your board of directors, you can insert here: "By the [name of board committee – eg Audit and Risk Committee]". If it has been authorised for release to the market by a disclosure committee, you can insert here: "By the Disclosure Committee".
5. If this report has been authorised for release to the market by your board of directors and you wish to hold yourself out as complying with recommendation 4.2 of the ASX Corporate Governance Council's *Corporate Governance Principles and Recommendations*, the board should have received a declaration from its CEO and CFO that, in their opinion, the financial records of the entity have been properly maintained, that this report complies with the appropriate accounting standards and gives a true and fair view of the cash flows of the entity, and that their opinion has been formed on the basis of a sound system of risk management and internal control which is operating effectively.