

26<sup>th</sup> July 2022



#### Corporate Details

**Zenith Minerals Limited (ASX:ZNC)**

ABN: 96 119 397 938

Issued Shares	343.9M
Unlisted options	14.3M
Mkt. Cap. (\$0.32)	A\$111M
Cash (31 <sup>st</sup> Mar 22)	A\$9.3M
Equities (31 <sup>st</sup> Mar 22)	A\$14.2M
Debt	Nil

#### Directors

David Ledger	Executive Chairman
Michael Clifford	Managing Director
Stan Macdonald	Non-Exec Director
Julian Goldsworthy	Non-Exec Director
Emma Scotney	Non-Exec Director
Nic Ong	Co Sec
Nick Bishop	CFO

#### Major Shareholders

Directors	3.4%
HSBC Custody Nom.	8.7%
Citicorp Nom	8.3%
BNP Paribas Nom	6.2%
EV Metals Group	2.9%

#### Our Vision

Zenith has a vision to maximise shareholder value through superior project generation and exploration activities.

Focus is on 100% owned Zenith projects, whilst partners progress multiple additional opportunities.

#### Contact Us

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## POSITIVE LITHIUM METALLURGY

The Board of Zenith Minerals Limited (ASX: ZNC) ("Zenith" or "the Company") is very pleased to report positive initial sighter level metallurgical testwork on lithium mineralisation from the Split Rocks project in Western Australia. The project is part of the Zenith Lithium Joint Venture with EV Metals Group.

Both sighter flotation testwork and bench scale calcination-leach tests results were extremely positive and confirm the amenability of eucryptite mineralisation to conventional treatment processes and hence confirms the potential of eucryptite as a viable lithium target.

➤ The purpose of the testwork was to verify the lithium bearing mineral eucryptite, intersected in the maiden drill program, could be recovered to concentrate utilising a conventional process circuit and reagent regime, typical of that utilised in the West Australian spodumene industry, and to assess the feasibility of lithium extraction using traditional calcination, sulphation and leach extraction techniques.

➤ The outcomes of the flotation test were an overwhelming success, with a lithia recovery of 76% to a rougher concentrate grading 4.04% Li<sub>2</sub>O. XRD of the concentrate samples indicate the primary diluent mineral in the concentrate was quartz, suggesting subsequent cleaning and recleaning flotation stages should be sufficient to provide a further upgrade to achieve the high-grade market specification of 6.0% Li<sub>2</sub>O.

➤ Results of the initial sighter calcination-leach test were also extremely positive, with a lithium extraction of 91.3% achieved from an unconcentrated eucryptite feed sample. This high level of extraction was achieved with a calcination and sulphation test, to represent a traditional lithium conversion process route.

➤ As previously advised (ASX Release 19-Jul-22) a fully permitted program of 45 initial RC holes (~9,000 metres) has commenced to follow-up on the thick, high-grade lithium mineralisation intersected in the maiden drill program at the Rio pegmatite prospect (ASX Release 4-Apr-22), that returned results including:

- ZVRC002 - 20m @ 1.0% Li<sub>2</sub>O, including 10m @ 1.7% Li<sub>2</sub>O

➤ Split Rocks is a large scale, lithium prospective project with multiple target areas containing thick pegmatites, along strike from the major Mt Holland lithium deposit (Wesfarmers/SQM) – under construction.

**Zenith's Managing Director Michael Clifford commented:** "Both the sighter flotation testwork and bench scale calcination-leach tests results were extremely positive and confirm the amenability of eucryptite mineralisation to conventional treatment processes and hence confirm eucryptite as a viable lithium target. Achieving these outcomes with a limited number of tests is also testament to the processing expertise which EVM brings to the Zenith Lithium Joint Venture partnership".

## Metallurgical Testwork

An initial sighter testwork program was undertaken on lithium rich samples from the maiden drill program at the Rio Pegmatite, under the supervision of MinSol Engineering and EV Metals Group metallurgists, at Nagrom in Western Australia.

All testwork feed material was from a sub-composite of RC drill chips grading 2.58%  $\text{Li}_2\text{O}$  from a single drill hole (ZVRC002, 10m @ 1.7%  $\text{Li}_2\text{O}$ ). Calcination-Leach testwork was completed on the unconcentrated feed composite to represent the kiln roasting and acid leach process typical in lithium conversion processing facilities. The sample was calcined at elevated temperature, then pulverised and subjected to sulphation. Assay of the leach liquor and solids wash fractions was performed to assess lithium extraction rates.

For flotation testwork the sample was prepared by grinding to <106 micron and subsequently deslimed at 20 micron. Magnetic separation was undertaken after the grinding stage to remove iron mineralisation. The sample was then subject to a rougher flotation test using Sylfat FA1 collector at pH 8.0.

The outcomes of the flotation test were an overwhelming success, with a lithia recovery of 76% to a rougher concentrate grading 4.04%  $\text{Li}_2\text{O}$ .

XRD of the concentrate samples indicate the primary diluent mineral in the concentrate was quartz, suggesting subsequent cleaning and recleaning flotation stages should be sufficient to provide a further upgrade to achieve the high-grade market specification of 6.0%  $\text{Li}_2\text{O}$ .

## Background on the Rio Pegmatite

An initial program of 28 RC drill holes was completed to test 7 pegmatite targets: Rio (4 holes), Dulcie West (4 holes), Estrela (2 holes), British Hills East (7 holes), Pointer 7 (5 holes), Firebreak North (2 holes) and Firebreak South (4 holes) part of the Split Rocks project in Western Australia (ASX Release 4-Apr-22).

Assays for the **Rio** pegmatite target (the first target drill tested in the Mar-22 drill program), returned wide, high-grade lithium mineralisation. A single line of 4 RC holes (ZVRC001 – 004) was drilled at 200m spacing to follow-up on historical diamond drilling that intersected a flat-lying pegmatite, located 400m northwest. The pegmatite in historical diamond holes was up to 65m thick with strongly anomalous lithium. Thick pegmatites were intersected in each of the 4 new holes, all containing anomalous lithium levels >0.1% $\text{Li}_2\text{O}$  (Figures 1 and 2). Individual pegmatites are up to 55m in thickness, assuming a flat lying, stacked interpretation.

Drill hole ZVRC002 intersected an upper and a lower pegmatite. The upper pegmatite contained thick, high-grade lithium eucryptite\* mineralisation (confirmed via XRD analysis of 3 mineralised intervals). Results include:

- **20m @ 1.0%  $\text{Li}_2\text{O}$ , including 10m @ 1.7%  $\text{Li}_2\text{O}$**

*\*Eucryptite is a lithium aluminium silicate mineral with a formula  $\text{LiAlSiO}_4$ . The lithia content of pure eucryptite is 11.86%  $\text{Li}_2\text{O}$ . Spodumene is also a lithium aluminium silicate mineral with a formula  $\text{LiAlSi}_2\text{O}_6$ . The theoretical lithia content of pure spodumene is 8.03%  $\text{Li}_2\text{O}$ .*

Hole ZVRC002 ended in pegmatite. This lower 38m thick pegmatite zone contains strongly anomalous lithium (>0.1%  $\text{Li}_2\text{O}$ ). Lithium minerals were identified as petalite (via XRD analysis of 1 mineralised interval).

In addition, holes ZVRC001, 003 and 004 all intersected thick pegmatites returning strongly anomalous lithium (>0.1%  $\text{Li}_2\text{O}$ ). Lithium minerals in hole 003 were identified as petalite based on XRD analysis of 2 mineralised intervals.

The follow-up drill program of 45 initial holes will include infill 50m spaced holes as well as step out drilling at various spacings between 100m and 400m.

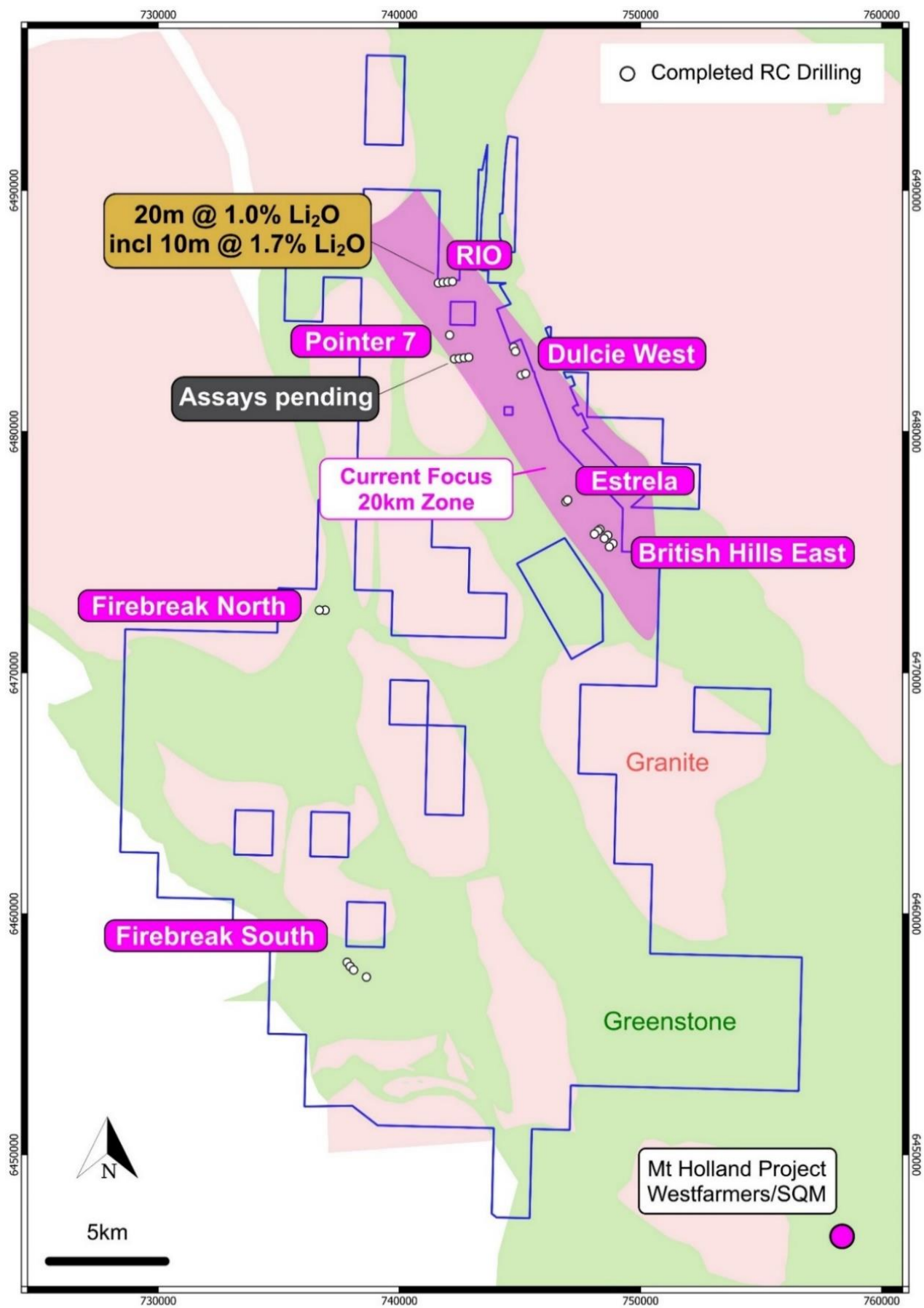


Figure 1: Split Rocks Lithium Drill Targets

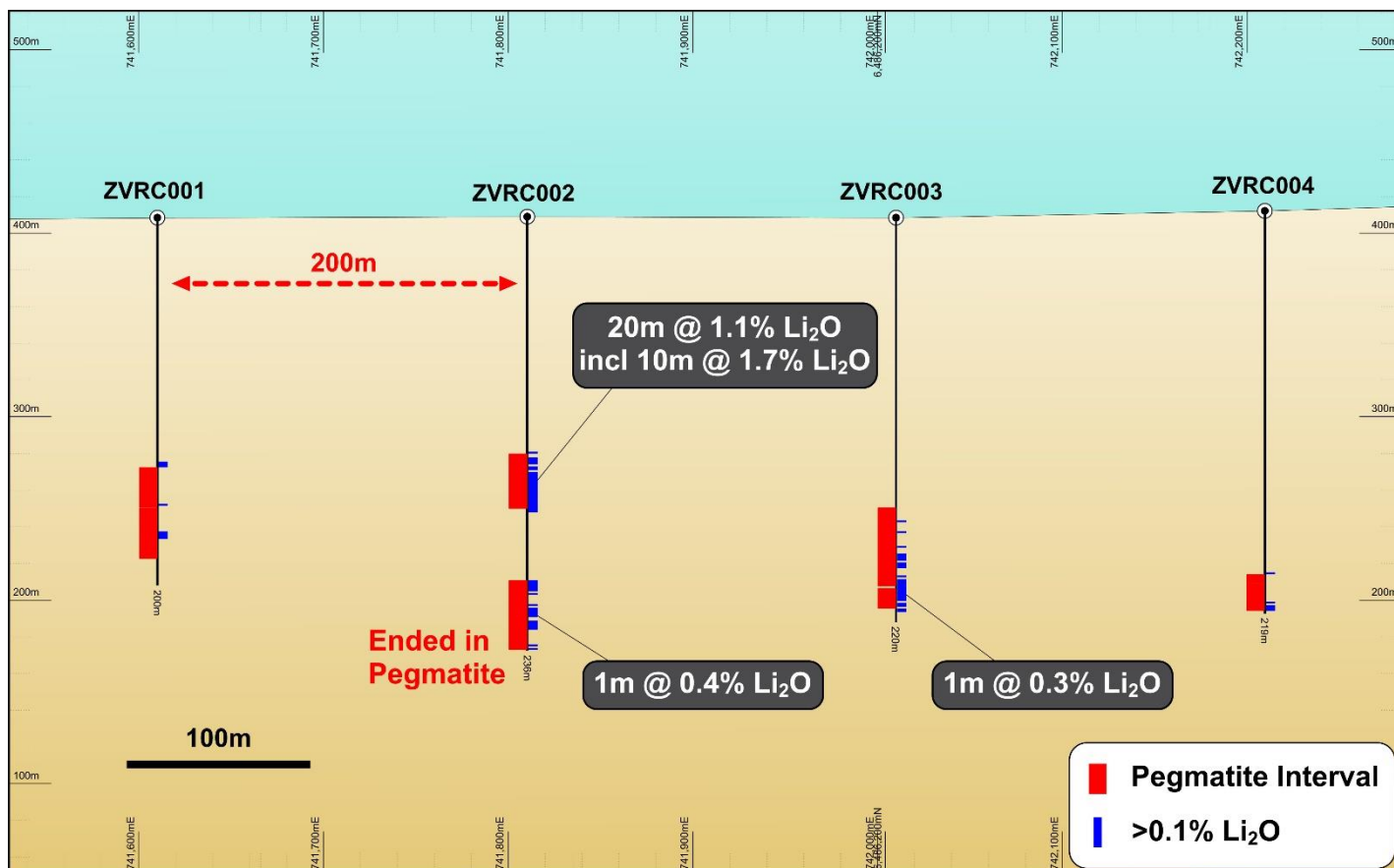


Figure 2: Rio Pegmatite Lithium Prospect Drilling Cross Section A-A'

### Background on the Split Rocks Project

Zenith has been systematically exploring the Split Rocks project for lithium (Figure 3) within landholdings of approximately 660 km<sup>2</sup> in the Forrestania greenstone belt. This emerging lithium district is host to SQM-Wesfarmers Mt Holland/Earl Grey lithium deposit containing a Measured, Indicated & Inferred Mineral Resource of 189Mt @ 1.5% Li<sub>2</sub>O (66Mt @ 1.58 %Li<sub>2</sub>O Measured, 106Mt @ 1.52% Li<sub>2</sub>O Indicated, and 17Mt @ 1.11% Li<sub>2</sub>O Inferred) (reported in KDR:ASX Release 19-Mar-2018).

An initial drill test of seven large, lithium pegmatite targets in the Split Rocks tenement package has been completed, including at: Rio, Dulcie West, Estrela, Pointer 7, and British Hills East, Firebreak North, and Firebreak South. Thick pegmatites were intersected at Estrela (pegmatite up to 29m thick) and British Hills East (pegmatite up to 114m thick) – with a maximum 0.1% Li<sub>2</sub>O.

Results are awaited for 4 drill holes completed at Pointer 7, whilst multiple additional targets have also been defined that will require drilling.

In addition, several lithium surface anomalies generated by Zenith through limited soil and auger sampling in the central west and northern portions of the project area require drill testing. Large areas considered prospective around granite margins in the centre of the project area are yet to be screened by surface sampling. Surface geochemical sampling programs to assess these zones have now commenced with auger sampling crews active on site.



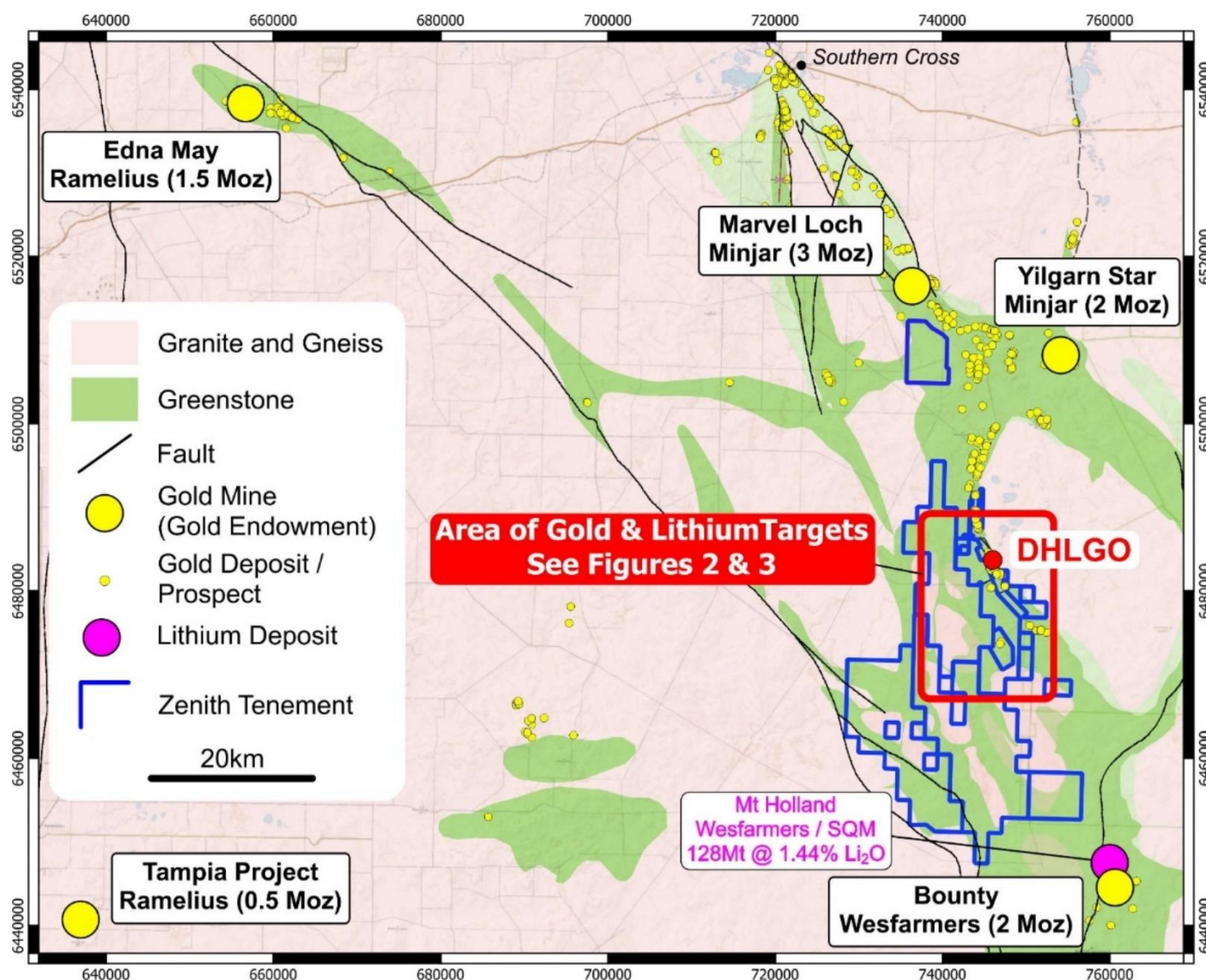


Figure 3- Split Rocks Project Location Map Showing Zenith tenements and Regional Lithium & Gold Endowment.  
(\*DHLGO - Gold rights below 6m subject to option agreement).

### Zenith Lithium Joint Venture

Zenith is being developed as a pure lithium company to refocus on minerals containing lithium and related metals required for rechargeable lithium-ion batteries for electric vehicles and renewable energy storage (“Battery Minerals”), backed by a new alliance with the EV Metals Group (EVM), as detailed in ASX Release 13-Jan-22. Key commercial terms of the Zenith Lithium Joint Venture with EVM include:

- EVM may earn a 60% interest in the lithium rights in two initial 100% owned Zenith projects, namely Waratah Well and Split Rocks (Figure 3), by sole funding the completion of a feasibility study within 24 months, with Zenith retaining a 40% project share.
- On and from completion of a feasibility study, Zenith and EVM will form a joint venture in respect of the project lithium rights. EVM will sole fund expenditure to a decision to mine, following which the parties will be required to fund future joint venture expenditure in accordance with their respective percentage shares.
- EVM must arrange all financing for the development, construction and commissioning of any future mine including Zenith’s share. Zenith must repay its proportionate share of the project finance including interest from the sale of its proportionate share of minerals produced.
- EVM to spend a minimum of A\$7M on exploration on the projects, in 24 months, before being able to voluntarily withdraw provided that if EVM does not complete a feasibility study within 24 months it will be deemed to have withdrawn and will not earn an interest in the project lithium rights.

- The agreement includes a joint venture over Zenith's Split Rocks and Waratah Well projects in Western Australia, as well as a non-exclusive right to bring additional projects to the joint venture by either party, to explore for lithium/EV metals.
- In addition, EVM or its nominees subscribed for 20,000,000 ordinary ZNC shares @ \$0.30 cents per share (representing a premium of 20% above the then VWAP for ZNC shares for the preceding 10 Business Days) raising A\$6M (Placement), with funds applied to source new lithium opportunities, near term advancement of its gold and base metals portfolio and working capital (ASX Release 19-Jan-22).



Figure 1: Zenith Lithium Joint Venture - Project Locations (stars) and Alliance Project (square)

### Australian Lithium Alliance

Zenith and EV Metals Group have also agreed to work together on a non-exclusive basis to assess lithium opportunities in Australia under a strategic initiative referred to herein as the Australian Lithium Alliance (ALA). Zenith and EV Metals Group will each fund their respective share of costs on assessing, exploring and any future development capital on a 40% - 60% basis respectively, with EV Metals Group owning marketing rights to any offtake. Each party will bring to the arrangement their respective technical, financial and management skills to assess lithium opportunities. The Mt Ida North option agreement announced to the ASX on 23-May-22 is being pursued under the ALA partnership.

The ALA is a separate arrangement to the existing Zenith Lithium Joint Venture with EV Metals Group that is detailed above and in ZNC ASX Release dated 14-Jan-22.

### Demerger of Gold and Base Metals Assets

To allow the Zenith team to focus on activities to generate Battery Minerals projects, ZNC is planning to demerge the non-Battery Minerals projects, including base metals and gold assets into a new Company called

Mackerel Metals Limited to be listed on ASX. Any such demerger will be subject to ZNC Board approval, tax advice favourable to ZNC, as well as shareholder, ASX, ASIC and other regulatory approvals. ZNC shareholders to benefit by way of an in-specie distribution of the shares in the new listed Company. Further updates and information on the Demerger will be provided by Zenith in due course.

### **Competent Persons Statement**

*The information in this report that relates to Exploration Results and Mineral Resources is based on information compiled by Mr Michael Clifford, who is a Member of the Australian Institute of Geoscientists and an employee of Zenith Minerals Limited. Mr Clifford has sufficient experience which is relevant to the style of mineralisation and type of deposit under consideration and to the activity which he is undertaking 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 Clifford consents to the inclusion in the report of the matters based on his information in the form and context in which it appears.*

*The information in this report that relates to lithium metallurgical testwork is based on information compiled by Mr Luke Fitzgerald, who is a Member of the Australian Institute of Mining and Metallurgy and an employee of EV Metals Group. Mr Fitzgerald has sufficient experience which is relevant to the style of mineralisation and type of deposit under consideration and to the activity which he is undertaking 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 Fitzgerald consents to the inclusion in the report of the matters based on his information in the form and context in which it appears.*

### **Material ASX Releases Previously Released**

*The Company has released all material information that relates to Exploration Results, Mineral Resources and Reserves, Economic Studies and Production for the Company's Projects on a continuous basis to the ASX and in compliance with JORC 2012. The Company confirms that it is not aware of any new information that materially affects the content of this ASX release and that the material assumptions and technical parameters remain unchanged.*

**Authorised for release by the Zenith Minerals Limited Board of Directors – 26<sup>th</sup> July 2022**

**For further information contact Zenith Minerals Limited:**

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# Zenith Minerals Limited (ASX:ZNC)

Zenith has a vision to maximise shareholder value through superior project generation and exploration activities.

Key Australian gold and base metal projects include:

<b>Earaheedy</b>	<b>Zinc</b>	<b>Western Australia</b>	<b>25% free carry to BFS</b>
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New major zinc discovery to be fast tracked with extensive accelerated exploration program underpinned by a recent \$40M capital raising by partner Rumble Resources Limited (ASX:RTR) (ASX Releases 28-Apr-21, 2-Jun-21, 8-Jun-21, 18-Oct-21, 13-Dec-21, 21-Dec-21, 31-Jan-22, 7-Feb-22, 21-Feb-22, 9-Mar-22, 26-May22).

<b>Develin Creek</b>	<b>Copper - Zinc</b>	<b>Queensland</b>	<b>100% Owned</b>
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Inferred Mineral Resource 2.57Mt @ 1.76% Cu, 2.01% Zn, 0.24g/t Au & 9.6g/t Ag (ASX Release 15-Feb-15). Massive sulphides intersected at 2 new prospects Wilsons North & Snook.

Sulphide City (ASX Release 5-Jul-21).	34m @ 3.5% Cu+Zn incl 10m @ 6.0% Cu+Zn	29m @ 3.5% Cu+Zn incl 12.3m @ 6.7% Cu+Zn
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<b>Red Mountain</b>	<b>Gold</b>	<b>Queensland</b>	<b>100% Owned</b>
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Drilling is following-up the high-grade near surface gold and silver intersected in the maiden & subsequent drill programs (ASX Releases 3-Aug-20 & 13-Oct-20, 9-Nov-20, 21-Jan-21, 19-May-21).

Results incl:	13m @ 8.0 g/t Au	15m @ 3.5 g/t Au
	5m @ 10.4 g/t Au	12m @ 4.9 g/t Au

<b>Split Rocks</b>	<b>Gold</b>	<b>Western Australia</b>	<b>100% Owned</b>
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Zenith drilling returned - high-grade near surface gold mineralisation at multiple targets (ASX Release 5-Aug-20, 2-Sep-20, 19-Oct-20, 28-Oct-20, 15-Jan-21, 11-Mar-21, 21-Apr-21, 24-Jun-21, 30-Sep-21, 18-Jan-22). Results include:

Dulcie North	32m @ 9.4 g/t Au, incl 9m @ 31.4 g/t Au	16m @ 1.3 g/t Au
Dulcie Laterite Pit	2m @ 14.5 g/t Au	18m @ 2.0 g/t Au
	14m @ 3.5 g/t Au	
Estrella	2m @ 9.8 g/t Au	
Dulcie Far North	5m @ 5.6 g/t Au	3m @ 70 g/t Au
Water Bore	3m @ 6.6 g/t Au	
Scotts Grey	8m @ 4.1 g/t Au	4m @ 4.8 g/t Au

## Investments



43.9M shares in Bradda Head Holdings Limited (AIM)



3.88M shares in Rumble Resources Limited (ASX:RTR)



2.5M shares in American Rare Earths (ASX:ARR)



0.5M shares in Nickel-X Limited (ASX:NKL)



## JORC Tables

### Section 1 Sampling Techniques and Data

(Criteria in this section apply to all succeeding sections.)

Criteria	JORC Code explanation	Commentary
Sampling techniques	<i>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 handheld XRF instruments, etc.). These examples should not be taken as limiting the broad meaning of sampling.</i>	1m reverse circulation drill samples were collected at depths ranging from 0 to 236m depth.  Samples were collected via a cyclone.
	<i>Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used.</i>	Samples are considered to be representative of the intervals sampled.
	<i>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 1 m samples from which 3 kg was pulverised to produce a 30 g 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.</i>	Reverse circulation drilling was used to obtain 1 m samples from which 2 kg was pulverised with analysis for lithium by sodium peroxide fusion with ICPMS finish.
Drilling techniques	<i>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.).</i>	Reverse circulation face sample drill bit.
Drill sample recovery	<i>Method of recording and assessing core and chip sample recoveries and results assessed.</i>	Visual estimates of recovery were recorded by the field geologist.
	<i>Measures taken to maximise sample recovery and ensure representative nature of the samples.</i>	Large capacity drill rig with booster compressor using reverse circulation face sample bit ensured good recoveries through-out the drill program.
	<i>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.</i>	Acceptable overall sample recoveries through-out drill program no bias likely.

Logging	<i>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.</i>	All drill samples were logged by a qualified geologist and descriptions recorded in a digital data base.
	<i>Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc.) photography.</i>	Qualitative logging, representative sample retained for each drill metre.
	<i>The total length and percentage of the relevant intersections logged.</i>	100%
Sub-sampling techniques and sample preparation	<i>If core, whether cut or sawn and whether quarter, half or all core taken.</i>	No core
	<i>If non-core, whether riffled, tube sampled, rotary split, etc. and whether sampled wet or dry.</i>	Rotary splitter for each 1m sample.
	<i>For all sample types, the nature, quality and appropriateness of the sample preparation technique.</i>	Samples were analysed at Nagrom Laboratories in Perth, 2 kg was pulverised and a representative subsample was analysed for lithium by sodium peroxide fusion with ICPMS finish.
	<i>Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples.</i>	~200g of sample was pulverised and a sub-sample was taken in the laboratory and analysed.
Sub-sampling techniques and sample preparation - continued	<i>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.</i>	Duplicate samples were taken in the field and analysed as part of the QA/QC process
	<i>Whether sample sizes are appropriate to the grain size of the material being sampled.</i>	Each sample was approximately 2kg in weight which is appropriate to test for the grain size of material sampled.
Quality of assay data and laboratory tests	<i>The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total.</i>	Samples were analysed at Nagrom Laboratories in Perth, 2 kg was pulverised and a representative subsample was analysed for lithium by sodium peroxide fusion with ICPMS finish.
	<i>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.</i>	<p>Semi-quantitative XRD analysis was used to determine the mineral species of lithium mineralised zones.</p> <p>The sample was supplied by the client to Microanalysis Australia for the above-mentioned analyses. A representative sub-sample was removed and lightly ground such that 90% was passing 20 µm. Grinding to this size helps eliminate preferred orientation.</p> <p>Only crystalline material present in the sample will give peaks in the XRD scan. Amorphous (non-crystalline) material will add to the background. The search match software used was Eva 4.3. An up-to-date ICDD card set was used. The X-ray source was cobalt radiation.</p> <p>No standards were used in the quantification process. The concentrations were calculated using the normalized reference intensity ratio method where the intensity of the 100% peak divided by the published I/Ic</p>

		<p>value for each mineral phase is summed and the relative percentages of each phase calculated based on the relative contribution to the sum. This method allows for slight attention to be paid to preferred orientation but is limited in considering other factors including but not limited to; variable crystallinity, alteration, fluorescence, substitution and lattice strain.</p> <p>Chemical assay data (XRF/ICP) was supplied by the client as an elemental relative abundance/concentration indicator. The XRD concentration of the interpreted phases (below) may have been adjusted in consideration of the chemical assay.</p>
	<i>Nature of quality control procedures adopted (e.g. standards, blanks, duplicates, external laboratory checks) and whether acceptable levels of accuracy (i.e. lack of bias) and precision have been established.</i>	Blanks, certified reference material for lithium, and duplicate samples were included in the analytical batches and indicate acceptable levels of accuracy and precision. XRD analyses of 6 mineralised intervals confirms the host lithium minerals as eucryptite and petalite. The high-grade zone is dominantly eucryptite with lower grade intervals containing petalite.
Verification of sampling and assaying	<i>The verification of significant intersections by either independent or alternative company personnel.</i>	At least 2 Zenith company personnel have been to the prospect area and observed samples and representative drill chip samples
	<i>The use of twinned holes.</i>	Nil
	<i>Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.</i>	Field data were recorded in a field laptop and then entered into a database.
	<i>Discuss any adjustment to assay data.</i>	No adjustments were made.
Location of data points	<i>Accuracy and quality of surveys used to locate drill holes (collar and down-hole surveys), trenches, mine workings and other locations used in Mineral Resource estimation.</i>	Sample location is based on GPS coordinates +/-5m accuracy
	<i>Specification of the grid system used.</i>	The grid system used to compile data was MGA94 Zone 50
Location of data points – continued	<i>Quality and adequacy of topographic control.</i>	Topography control is +/- 10m.
Data spacing and distribution	<i>Data spacing for reporting of Exploration Results.</i>	RC holes drilled at nominal 1km x 1km spacing.
	<i>Whether the data spacing and distribution is sufficient to establish the degree of geological and grade continuity appropriate for the Mineral Resource and Ore Reserve estimation procedure(s) and classifications applied.</i>	There is insufficient information to calculate a mineral resource
	<i>Whether sample compositing has been applied.</i>	Simple weight average mathematical compositing applied

Orientation of data in relation to geological structure	<i>Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type.</i>	All Zenith drilling is vertical and is close to representing true width thickness of the flat lying gently dipping lithium mineralisation, based on the current geological interpretation. Further drilling is required to confirm this interpretation.
	<i>If the relationship between the drilling orientation and the orientation of key mineralised structures is considered to have introduced a sampling bias, this should be assessed and reported if material.</i>	No bias based on current interpretation of shallow dipping lithium mineralisation
Sample security	<i>The measures taken to ensure sample security.</i>	All samples were taken by Zenith personnel on site and retained in a secure location until delivered directly to the laboratory by Zenith personnel.
Audits or reviews	<i>The results of any audits or reviews of sampling techniques and data.</i>	The sampling techniques and data have been reviewed by two company personnel who are qualified as Competent Persons

## Section 2 Reporting of Exploration Results

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

Criteria	JORC Code explanation	Commentary
Mineral tenement and land tenure status	<i>Type, reference name/number, location and ownership including agreements or material issues with third parties such as joint ventures, partnerships, overriding royalties, native title interests, historical sites, wilderness or national park and environmental settings.</i>	<p>Split Rocks exploration and prospecting licences are held by a wholly owned subsidiary of Zenith Minerals Limited.</p> <p>EV Metals Group (EVM) may earn a 60% interest in the lithium rights in two initial 100% owned Zenith projects Waratah Well and Split Rocks by sole funding the completion of a feasibility study within 24 months, with Zenith retaining a 40% project share.</p> <p>On and from completion of a feasibility study, Zenith and EVM will form a joint venture in respect of the project lithium rights. EVM will sole fund expenditure to a decision to mine, following which the parties will be required to fund future joint venture expenditure in accordance with their respective percentage shares.</p> <p>EVM must arrange all financing for the development, construction and commissioning of any future mine including Zenith's share. Zenith must repay its proportionate share of the project finance including interest from the sale of its proportionate share of minerals produced.</p> <p>EVM to spend a minimum of A\$7M on exploration on the projects, in 24 months, before being able to voluntarily withdraw provided that if EVM does not complete a feasibility study within 24 months it will be deemed to have withdrawn and will not earn an interest in the project lithium rights. Refer ASX Release 14-Jan-22 for further details.</p>

	<i>The security of the tenure held at the time of reporting along with any known impediments to obtaining a licence to operate in the area.</i>	Tenements are exploration licences. There are no known impediments to obtaining a licence to operate in the area
<i>Exploration done by other parties</i>	<i>Acknowledgment and appraisal of exploration by other parties.</i>	Refer to ASX release 21 <sup>st</sup> March 2019 for details on the background of historic exploration activity..
<i>Geology</i>	<i>Deposit type, geological setting and style of mineralisation.</i>	Archaean pegmatite hosted lithium.
<i>Drill hole Information</i>	<i>A summary of all information material to the understanding of the exploration results including a tabulation of the following information for all Material drill holes:</i>	Refer to Figures and Tables in body of text of this ASX release.
	<i>o easting and northing of the drill hole collar</i>	
	<i>o elevation or RL (Reduced Level – elevation above sea level in metres) of the drill hole collar</i>	
	<i>o dip and azimuth of the hole</i>	
	<i>o down hole length and interception depth</i>	
	<i>o hole length.</i>	
	<i>If the exclusion of this information is justified on the basis that the information is not Material and this exclusion does not detract from the understanding of the report, the Competent Person should clearly explain why this is the case.</i>	
<i>Data aggregation methods</i>	<i>In reporting Exploration Results, weighting averaging techniques, maximum and/or minimum grade truncations (e.g. cutting of high grades) and cut-off grades are usually Material and should be stated.</i>	High-grade intersections are length weighted average grades with minimum cut -off grade of 1.0%Li <sub>2</sub> O and no internal dilution, whilst lower grade intersections are length weighted average grades with minimum cut-off grade of 0.3% Li <sub>2</sub> O and maximum internal dilution of 2m.
	<i>Where aggregate intercepts incorporate short lengths of high-grade results and longer lengths of low grade results, the procedure used for such aggregation should be stated and some typical examples of such aggregations should be shown in detail.</i>	As above and included in Tables.
<i>Data aggregation methods - continued</i>	<i>The assumptions used for any reporting of metal equivalent values should be clearly stated.</i>	No metal equivalents used.
<i>Relationship between mineralisation widths and intercept lengths</i>	<i>These relationships are particularly important in the reporting of Exploration Results.</i>	Drilling is angled -90 degrees and based on current interpretation is thought to be representing true width thickness of the flat lying pegmatite zones however further drilling is required to confirm this interpretation.
	<i>If the geometry of the mineralisation with respect to the drill hole angle is known, its nature should be reported.</i>	As above
	<i>If it is not known and only the down hole lengths are reported, there should be a clear statement to this effect (e.g. 'down hole length, true width not known').</i>	Mineralised intervals reported are down-hole lengths but are believed to be close to true thickness



Diagrams	Appropriate maps and sections (with scales) and tabulations of intercepts should be included for any significant discovery being reported. These should include, but not be limited to a plan view of drill hole collar locations and appropriate sectional views.	Refer to Figures and Tables in body of text of this ASX release.
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.	Refer to Figures and Tables in body of text of this ASX release.
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 contaminating substances.	<p><b>Metallurgical Testwork</b></p> <p>An initial sighter testwork program was undertaken on lithium rich samples from the maiden drill program at the Rio Pegmatite, under the supervision of MinSol Engineering and EV Metals Group metallurgists, at Nagrom in Western Australia.</p> <p>All testwork feed material was from a sub-composite of RC drill chips grading 2.58% Li<sub>2</sub>O from a single drill hole (ZVRC002, 10m @ 1.7% Li<sub>2</sub>O). Calcination-Leach testwork was completed on the unconcentrated feed composite to represent the kiln roasting and acid leach process typical in lithium conversion processing facilities. The sample was calcined at elevated temperature, then pulverised and subjected to sulphation. Assay of the leach liquor and solids wash fractions was performed to assess lithium extraction rates.</p> <p>For flotation testwork the sample was prepared by grinding to &lt;106 micron and subsequently deslimed at 20 micron. Magnetic separation was undertaken after the grinding stage to remove iron mineralisation. The sample was then subject to a rougher flotation test using Syllfat FA1 collector at pH 8.0.</p> <p>The outcomes of the flotation test were an overwhelming success, with a lithia recovery of 76% to a rougher concentrate grading 4.04% Li<sub>2</sub>O.</p> <p>XRD of the concentrate samples indicate the primary diluent mineral in the concentrate was quartz, suggesting subsequent cleaning and recleaning flotation stages should be sufficient to provide a further upgrade to achieve the high-grade market specification of 6.0% Li<sub>2</sub>O.</p>
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).	Follow-up drilling planned.
	Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive.	Refer to figures in body of this report.