

30 NEW LITHIUM TARGETS AT SPLIT ROCKS

Widespread – Extensive Lithium Geochemical Anomalies

Investment Highlights

- Auger soil geochemical sampling outlines 30 new lithium targets within Zenith's large tenement holding at Split Rocks, highlighting the significant "blue-sky" lithium potential of the project area.
- The new lithium targets are in addition to the very large (>9km long by 2km wide) Cielo Lithium Target previously announced to ASX on 9-Feb-23.
- The new targets all lie outside of Zenith's Rio Lithium Prospect (drill results including 26m @ 1.2% Li₂O)¹ and are northwest of the Mt Holland Lithium Deposit (under development by SQM-Wesfarmers).

¹ZNC:ASX Release 16-Nov-22

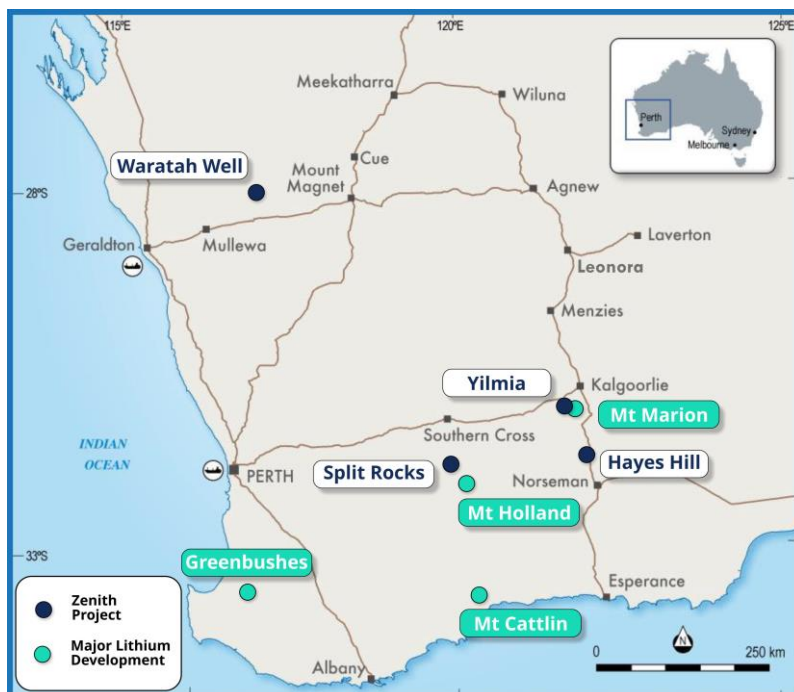
Zenith Minerals (ASX:ZNC) ("**Zenith**", or the "**Company**") is pleased to advise that 30 new lithium targets have now been defined at the Split Rocks Lithium Project in Western Australia (Figure 1). The Split Rocks Project is located approximately 40km south of the regional town of Marvel Loch in the Yilgarn Shire of Western Australia.

Figure 1: Map of Zenith's Lithium Projects

Sampling Details

During 2022 a total of 14,754 geochemical samples were collected across the Split Rocks project area, comprised of both auger and soil samples with the sampling method determined by the regolith (nature of the materials present near surface). To date, first pass sampling has now covered approximately 80% of the project area with additional sampling planned.

The geochemical sampling program has been successful in defining multiple new lithium geochemical anomalies throughout the project area (Figure 2).



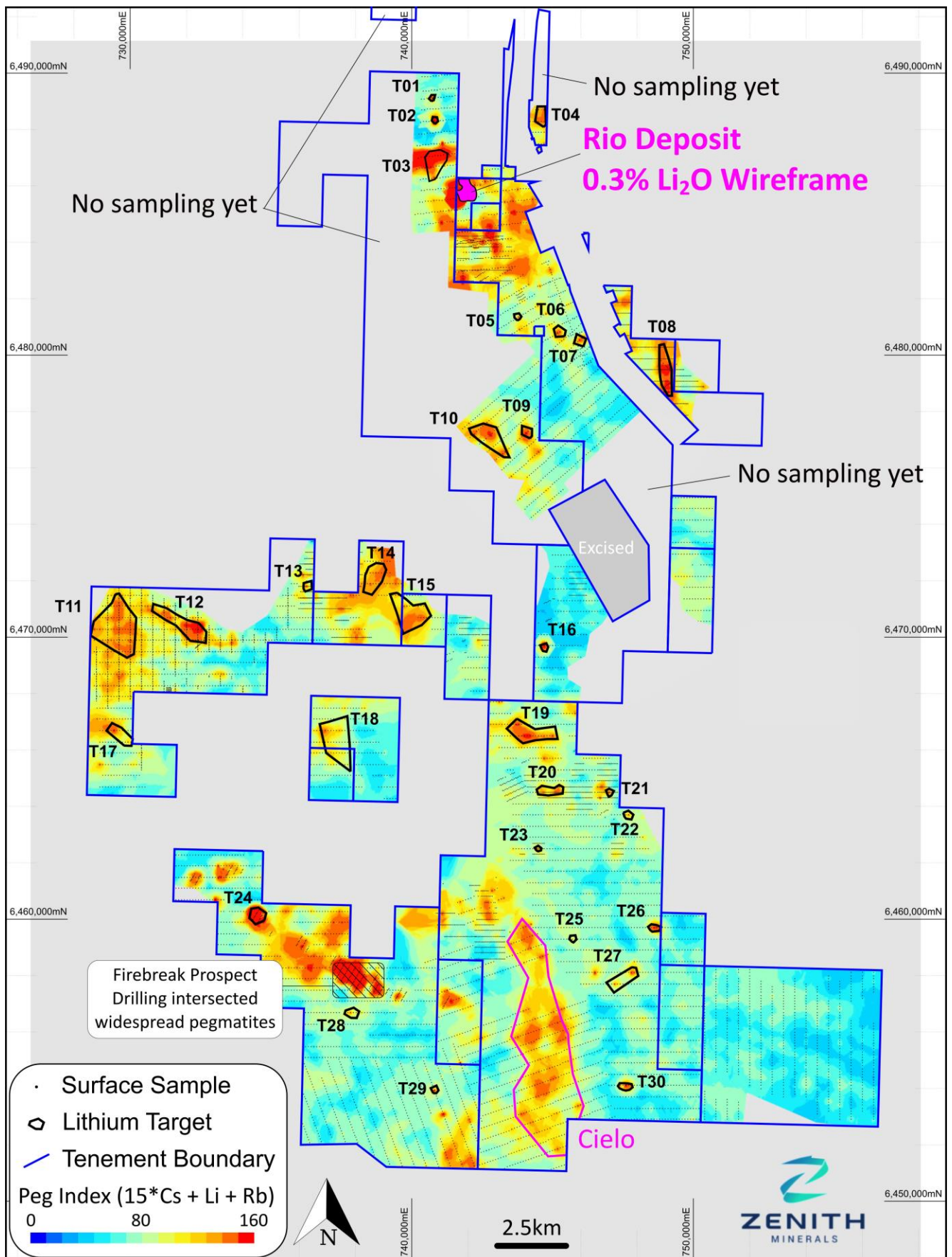


Figure 2: Split Rocks Lithium Targets

Managing Director Michael Clifford said: *"We are delighted to announce that we have now defined 30 additional lithium targets within our Split Rocks project area. These new targets are in addition to the very large Cielo target that we reported earlier this year. Zenith is very keen to see these targets being tested to unlock the full potential of this exciting project area."*

Technical Details

Soil geochemical data has now been assessed in detail by the Zenith technical team. Data was compiled and assessed based on LCT pegmatite related elements: lithium, caesium, tantalum, rubidium and tin values as well as the combination of, or absence of, these elements.

Grids were created for each element above and a Peg Index ($\text{Li} + \text{Rb} + (\text{Cs} \times 15)$) by using an Inverse Distance Weighting interpolation (IDW). The grids were then assigned colour sets by using a linear statistical method (mean and standard deviation are calculated and 12 ranges are established).

Data was also plotted by creating a "Li Suite Index" where each anomalous element (above a certain threshold) contributes 1 to the index with 6 elements being used for this review.

The anomalies were then ranked, field checked and assessed against anomalies associated with known lithium bedrock mineralisation such as Zenith's Rio lithium prospect area (drilling results up to 26m @ 1.2% Li_2O) located in the northern portion of the project area. Field inspection of each target indicates that for most of the anomalies there is no or very limited outcrop, meaning that drill testing will be required to assess their full potential.

Background on Split Rocks

The Split Rocks Project is located approximately 40km south of the regional town of Marvel Loch in the Goldfields Region of Western Australia.

The project area lies immediately north of the Mt Holland Lithium Project that is being developed by Covalent Lithium (SQM and Wesfarmers) - Figure 1.

Drilling as part of an ongoing exploration campaign to scope the size of the host pegmatite and contained lithium mineralisation at the Rio Prospect has returned significant lithium mineralisation (ASX Release 24-Apr-23), including:

- **26m @ 1.2% Li_2O including 13m @ 1.9% Li_2O**
- **20m @ 1.0% Li_2O including 10m @ 1.7% Li_2O**
- **23m @ 0.8% Li_2O including 8m @ 1.3% Li_2O**

Lithium pegmatite mineralisation identified to date is a mixture of eucryptite with lesser spodumene, petalite and lepidolite confirmed by multiple methods including optical microscopy, SEM, Raman spectroscopy and XRD analyses.

The amenability of eucryptite mineralisation to conventional treatment processes has been shown by positive sighter flotation testwork and bench scale calcination-leach tests, hence confirming the potential of eucryptite as a viable lithium target (ASX Release 26-Jul-22).

Forward Program

Lithium mineralisation at Rio remains open to the north, south, east and at depth. Permits are now in place to enable infill and extensional drilling of up to a further 50 RC / diamond holes in the immediate Rio area. Drilling is planned to recommence at Rio as well as on the 30 new lithium targets once matters pertaining to the joint venture with EVM are resolved (refer to the Section on the EVM Joint Venture below).

EVM Joint Venture

In January 2022, Zenith entered into a joint venture with EV Metals Group (EVM). EVM can earn a 60% interest in the lithium rights on two lithium projects, Split Rocks and Waratah Well, with Zenith retaining a 40% project share. Under the terms of the agreement Zenith is fully funded by EVM through to a bankable feasibility on any project development, such a study must be completed by January 2024. If EVM do not complete a bankable feasibility study by January 2024 then they will have no ongoing interest in the joint venture projects.

Zenith has incurred expenditure on the ZNC-EVM Joint Venture assets (Split Rocks and Waratah Well) to maintain the tenure in good standing, which should have been paid for by EVM. The amount outstanding to Zenith totals approximately \$1.4M. The outstanding funds have been fully impaired in the accounts of Zenith. EVM have not undertaken any new drilling or sampling activity on the JV projects since December 2022. Zenith is waiting for EVM to formally advise the Company of its intentions regarding the projects.

For further information, please contact:

Zenith Minerals Limited

David Ledger

Executive Chairman

P: +61 8 9226 1110

E: info@zenithminerals.com.au

Media & Investor Enquiries

Jane Morgan Management

Katrina Griffiths

E: katrina@janemorganmanagement.com.au

About Zenith Minerals

Zenith Minerals Limited (ASX:ZNC) is an Australian-based minerals exploration company leveraged to the increasing global demand for metals critical to the production processes of new energy industrial sectors.

The Company currently has three lithium projects all located in Western Australia. Two projects, Split Rocks and Waratah Well, are being explored under the terms of a joint venture between Zenith and EV Metals Group (EVM). Split Rocks covers landholdings of approximately 660 km² in the Forrestania greenstone belt immediately north of the established Mt Holland lithium deposit. Waratah Well, located approximately 20km northwest of the regional town of Yalgoo in the Murchison Region holds a lithium pegmatite with ongoing exploration required.

In January 2022, Zenith entered into a joint venture with EV Metals Group (EVM), a company with plans to develop a Battery Chemicals Complex in Saudi Arabia. EVM can earn a 60% interest in the lithium rights on two lithium projects, Split Rocks and Waratah Well, with Zenith retaining a 40% project share. Under the terms of the agreement Zenith is fully funded by EVM through to a bankable feasibility on any project development, such a study must be completed by January 2024.

Zenith has an additional two lithium projects. In January 2023, Zenith secured an option to acquire 100% of the Hayes Hill lithium – nickel project, located in the Norseman – Widgiemooltha area of Western Australia. A further project Yilmia, covers an 8 km long lithium prospective area in the Coolgardie district, some 13 km southeast of the recent Kangaroo Hills lithium discovery by ASX:FBM. Zenith may earn up to a 100% interest in the lithium rights at the Yilmia project.

In addition to its battery metal assets Zenith owns a portfolio of gold and base metal projects. It retains a 25% free carried interest (to end bankable feasibility study) on the Earahedy Zinc discovery, in Western Australia, with Rumble Resources Limited (ASX:RTR) and two main gold projects – Red Mountain in Queensland and Split Rocks in Western Australia.

To learn more, please visit www.zenithminerals.com.au

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.

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.

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>	Systematic auger and soil sampling program on 400m x 100m spacing.
	<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 material sampled. Soil sampling was conducted over areas deemed to be residual soils or regolith whilst auger was completed over areas interpreted to be transported or having surface colluvium or alluvium.
	<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>	200g of -2mm sieved soil or 200g of auger sample was collected in the field. Samples were analysed at SGS Laboratories in Perth, 0.2 kg was pulverised and a representative subsample was analysed 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>	No new drilling reported in this ASX Release
Drill sample recovery	<i>Method of recording and assessing core and chip sample recoveries and results assessed.</i>	No new drilling reported in this ASX Release
	<i>Measures taken to maximise sample recovery and ensure representative nature of the samples.</i>	No new drilling reported in this ASX Release
	<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>	No new drilling reported in this ASX Release

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>	No new drilling reported in this ASX Release
	<i>Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc.) photography.</i>	Qualitative logging of soil samples was completed by field crew.
	<i>The total length and percentage of the relevant intersections logged.</i>	No new drilling reported in this ASX Release
Sub-sampling techniques and sample preparation	<i>If core, whether cut or sawn and whether quarter, half or all core taken.</i>	No new drilling reported in this ASX Release
	<i>If non-core, whether riffled, tube sampled, rotary split, etc. and whether sampled wet or dry.</i>	No new drilling reported in this ASX Release
	<i>For all sample types, the nature, quality and appropriateness of the sample preparation technique.</i>	Samples were analysed at SGS Laboratories in Perth, 0.2 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 0.2kg 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 SGS Laboratories in Perth, 0.2 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>	No geophysical results reported and or tools used relevant to this ASX release.
	<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.
Verification of sampling and assaying	<i>The verification of significant intersections by either independent or alternative company personnel.</i>	No new drilling reported in this ASX Release
	<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.
<i>Location of data points</i>	<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
<i>Location of data points – continued</i>	<i>Quality and adequacy of topographic control.</i>	Topography control is +/- 10m.
<i>Data spacing and distribution</i>	<i>Data spacing for reporting of Exploration Results.</i>	Auger & soil samples on 400m spaced lines with samples at 100m 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
<i>Orientation of data in relation to geological structure</i>	<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>	Drilling is angled -90 degrees (ZVCD079 drilled at -60 degrees dip) 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 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 to flat dipping lithium mineralisation
<i>Sample security</i>	<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.
<i>Audits or reviews</i>	<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
<i>Mineral tenement and land tenure status</i>	<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>	Split Rocks exploration and prospecting licences are held by a wholly owned subsidiary of Zenith Minerals Limited. 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. On and from completion of a feasibility study, Zenith and EVM will form a joint venture in respect of the

		<p>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.</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> <p>P774490 forms part of the Australian Lithium Alliance whereby EVM(60%) and Zenith (40%) contribute their respective costs to this tenement only.</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 21st 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>	<p><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></p> <ul style="list-style-type: none"> <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> <p><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></p>	Refer to Figures and Tables in body of text of this ASX release.
<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>	No new drilling reported in this ASX Release

	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.	No new drilling reported in this ASX Release
Data aggregation methods - continued	The assumptions used for any reporting of metal equivalent values should be clearly stated.	No metal equivalents used.
Relationship between mineralisation widths and intercept lengths	These relationships are particularly important in the reporting of Exploration Results.	No new drilling reported in this ASX Release
	If the geometry of the mineralisation with respect to the drill hole angle is known, its nature should be reported.	No new drilling reported in this ASX Release
	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').	No new drilling reported in this ASX Release
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.	No other meaningful or material exploration data to be reported at this stage.
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).	Initial aircore drill testing of the lithium geochemical targets 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.