

28 JUNE 2023



## Anomalous Lithium-Caesium-Tantalum Targets at Ella's Rock

### Corporate Highlights

- An extensive soil geochemical program at the Ella's Rock Li-Au-Ni Project has been completed
- The project area lies south of Wesfarmers' Mt Holland high-grade lithium hydroxide project
- 1,810 surficial soil samples were taken over a sparsely explored area covering over 8,000ha, providing comprehensive geochemical coverage of the main and southern Ella's Rock tenements
- Analysis has revealed three Lithium-Caesium-Tantalum ('LCT') bearing geochemical target areas, Hooper, Fitzgerald and Baché, covering a combined 350ha
- A fourth anomaly, Ella's Trend, represents a 12km long and up to 1km wide anomalous LCT trend, encompassing the central Fitzgerald target
- All anomalous LCT trends and targets remain untested by drilling
- The Company will now proceed with further detailed groundwork, review and planning to drill test these anomalous LCT bearing targets

### Summary:

Cavalier Resources Limited (**ASX: CVR**) ('Cavalier' or 'the Company') is pleased to announce the discovery of multiple Lithium-Caesium-Tantalum ('LCT') bearing geochemical anomalies at the Ella's Rock Li-Au-Ni Project located in Forrestania, Western Australia.

A total of 1,810 surficial soil samples covering over 8,000 hectares were taken, uncovering anomalous LCT targets and trends that have never been drill tested.

The Company will now proceed with further detailed groundwork, review and planning to drill test the LCT bearing targets.

## About Ella's Rock:

The Ella's Rock Project consists of four exploration licences covering an area to the east of the Forrestania Greenstone Belt which hosts the historic Diggers Rock open pit, Western Areas planned Diggers South underground nickel mine and Cosmic Boy nickel plant, as well as Classic Mineral's new Kat Gap gold mine.

To the north lies Forrestania Resources' lithium target corridor and Wesfarmers' Mt Holland high-grade lithium hydroxide project with the Lake lithium target lying immediately west of the project area.

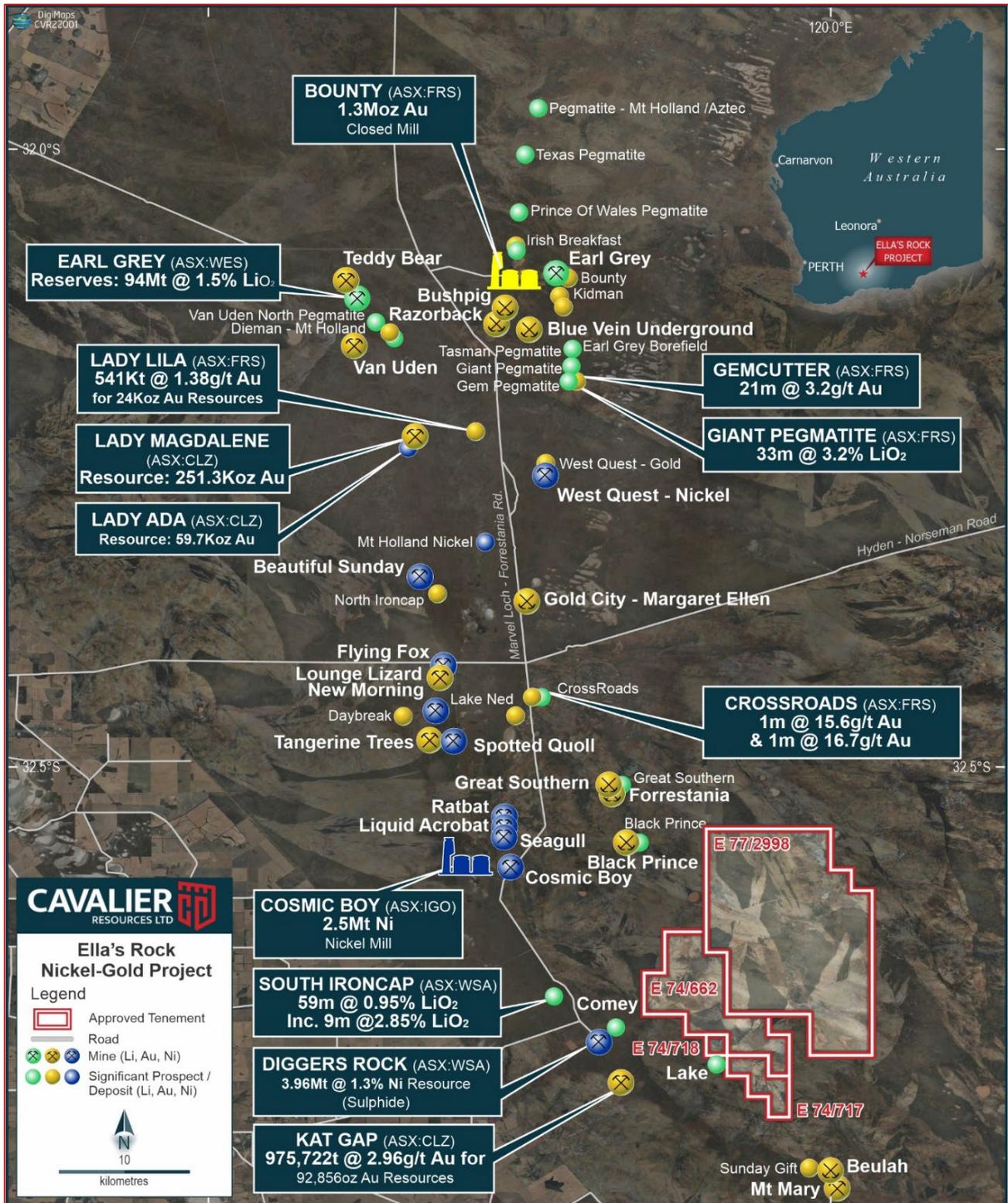


Figure 1: Ella's Rock Project and surrounding area

Surface mapping of the main lease central and southern leases indicates the presence of greenstone lithologies in an area previously interpreted to be predominantly granite. The greater project area is under explored with minimal drilling, providing Cavalier with potentially significant lithium, gold and nickel exposure in the Forrestania region, diversifying and enriching the value of its tenement portfolio outside of the Leonora region.

For further information on the Ella's Rock Project, please refer to the Independent Geologist's Report in the [Prospectus](#) released to the ASX on 15 June 2022.

**Daniel Tuffin, Executive Technical Director, commented:**

“The Company is thrilled with these exciting results from our recent soils program at Ella's Rock which reveal the presence of three significant Lithium-Caesium-Tantalum (LCT) bearing anomalous target areas (Hooper, Fitzgerald, and Baché) along with the impressive 12km long Ella's Trend target.

Located south of the Wesfarmers Mt Holland high-grade lithium hydroxide project, it is important to note that these new LCT trends and targets remain untested by drilling, underscoring the significant untapped potential that lies within the Ella's Rock project area.

We are still in the early stages of exploration of the area, but the implications of these findings from the shallow soils program are highly promising.

In light of these findings, the Company will now focus advancing our exploration efforts toward testing the potential for LCT bearing pegmatites in the region via further detailed groundwork, meticulous planning and acquisition of further permits to prepare for the crucial next step – drill testing these anomalous LCT bearing targets.”

**Geochemical Soil Sampling Analysis:**

The Company commenced an extensive shallow soils program targeting lithium, nickel and gold at the Ella's Rock Project in Forrestania, Western Australia, in late October 2022 (see ASX announcement [31 October 2022](#)) The purpose behind the program was to provide comprehensive geochemical coverage of three Ella's Rock tenements, E74/662, E74/717 and E74/718, which span a combined area of over 8,000 hectares (80km<sup>2</sup>).

In addition to the sheer size of the program, most of the 1,810 soil samples, spaced on a 200m x 200m grid, were collected in an area with limited access reducing sampling speeds.

The program was recently completed with samples sent in batches to the ALS Laboratories Wangara in accordance with the Company's sampling protocols. Samples were pulverised to -75 microns. The analytical method first employed aqua regia digestion for gold to remove the SiO<sub>2</sub> to maximise the recovery of silica hosted minerals, followed by a multi-element four acid digest.

Routine interrogation of the geochemical dataset has revealed a significant correlation and clustering of key elements (Li, Cs, Ta, Sn, Rb and Bi), see **Figure 3**. This combination of elements indicates the presence of Lithium-Caesium-Tantalum ('LCT') bearing mineralisation.

A further Principal Component Analysis ('PCA') was completed independently in ioGAS (an exploratory data analysis software application). The results confirmed clustering of Be, Li, Rb, Cs, Ta, Sn and Ba in Principle Component 3 (PC3: 5.9Be + 5.1Li + 4.5Rb + 4.1Cs + 1.4Ta + 1.3Sn + 1Ba), and a clustering of Cs, Sn, Zn, Rb, Ti, Ni, Li and Ta in PC4 (2.7Cs + 2.1Sn + 2.1Zn + 2.1Rb + 1.9Ti + 1.7Ni + 1.1Li + 1Ta), with Cs the most dominant element (see **Appendix 2**).

Three main clusters of highly anomalous data, covering a combined 350 hectares, were defined:

1. Northern anomaly “Hooper”,
2. Central anomaly “Fitzgerald”, and
3. Southern anomaly “Baché”

In addition to the three LCT-type targets discussed above, a significant fourth target was also identified; the Ella's Trend. (See **Figure 2**)

The Hooper target is the smallest of the three significant geochemical targets identified within Ella's Rock. The anomaly corresponds to an approximately 700m x 800m circular feature with a subtle rise in elevation. Lithium values peaked at 53ppm, caesium at 2.95ppm and tantalum at 0.92ppm.

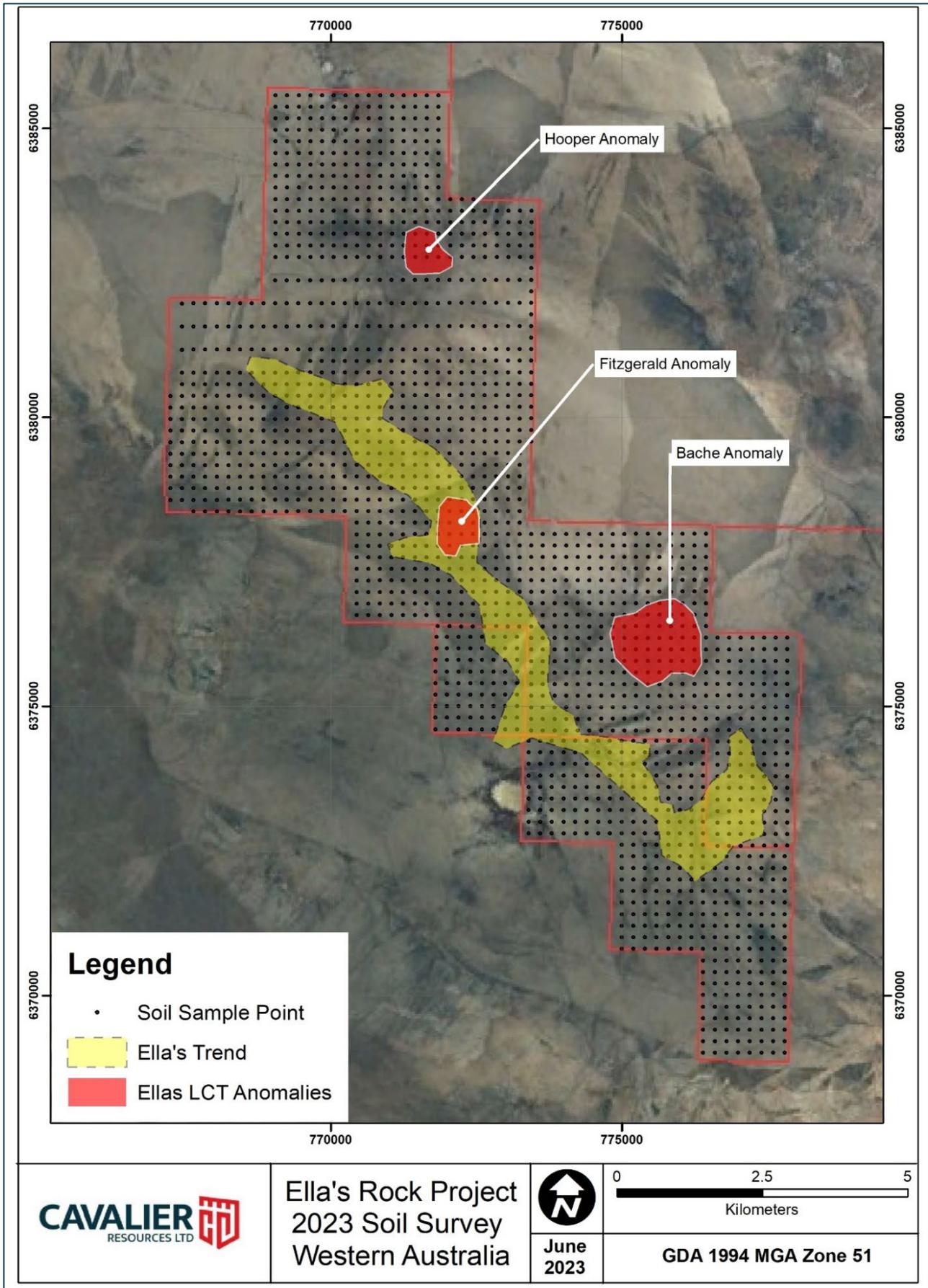


Figure 2: General outline of the Ella's Rock tenements highlighting the four main anomalous features identified from the surface soil analysis

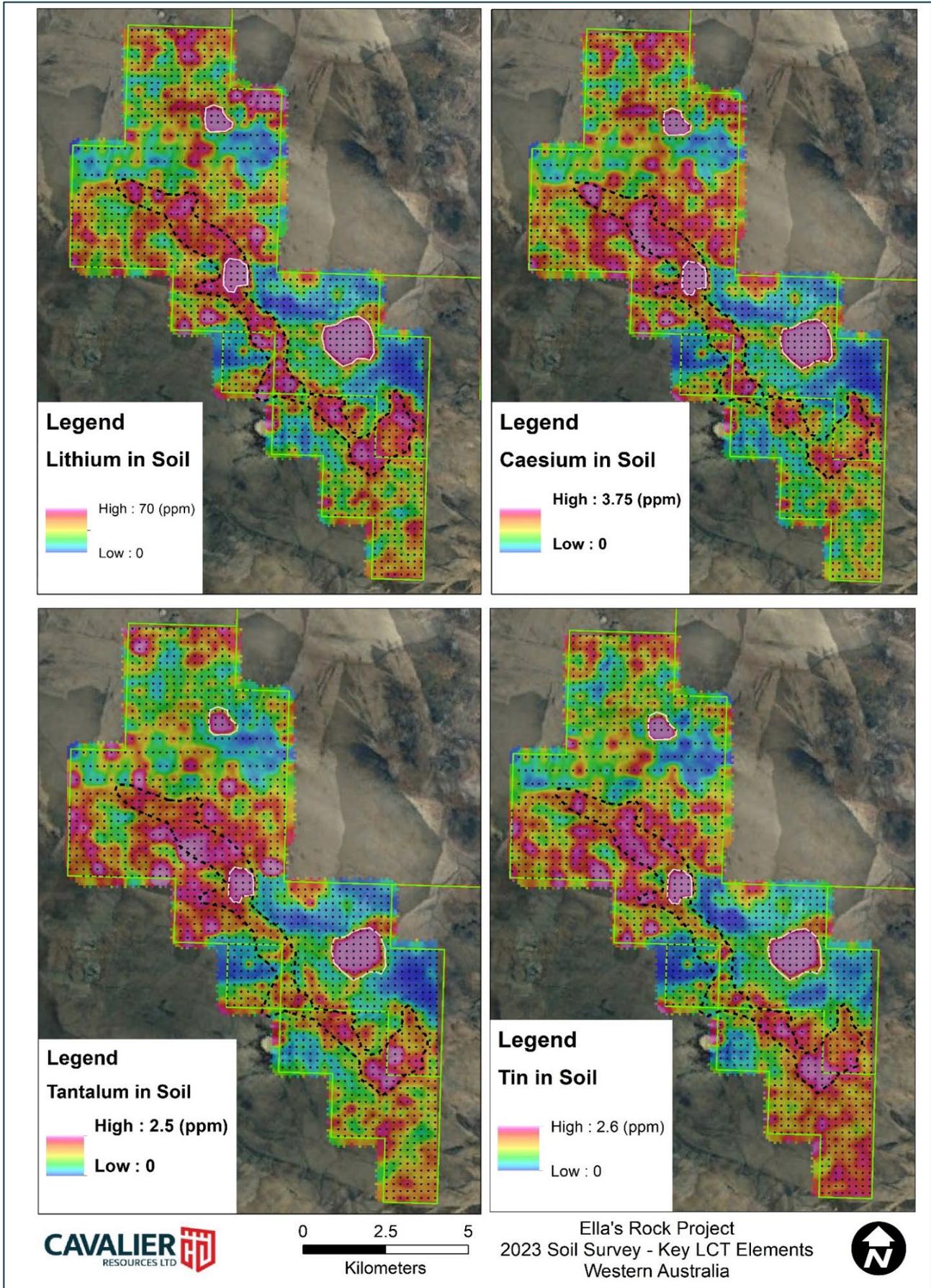
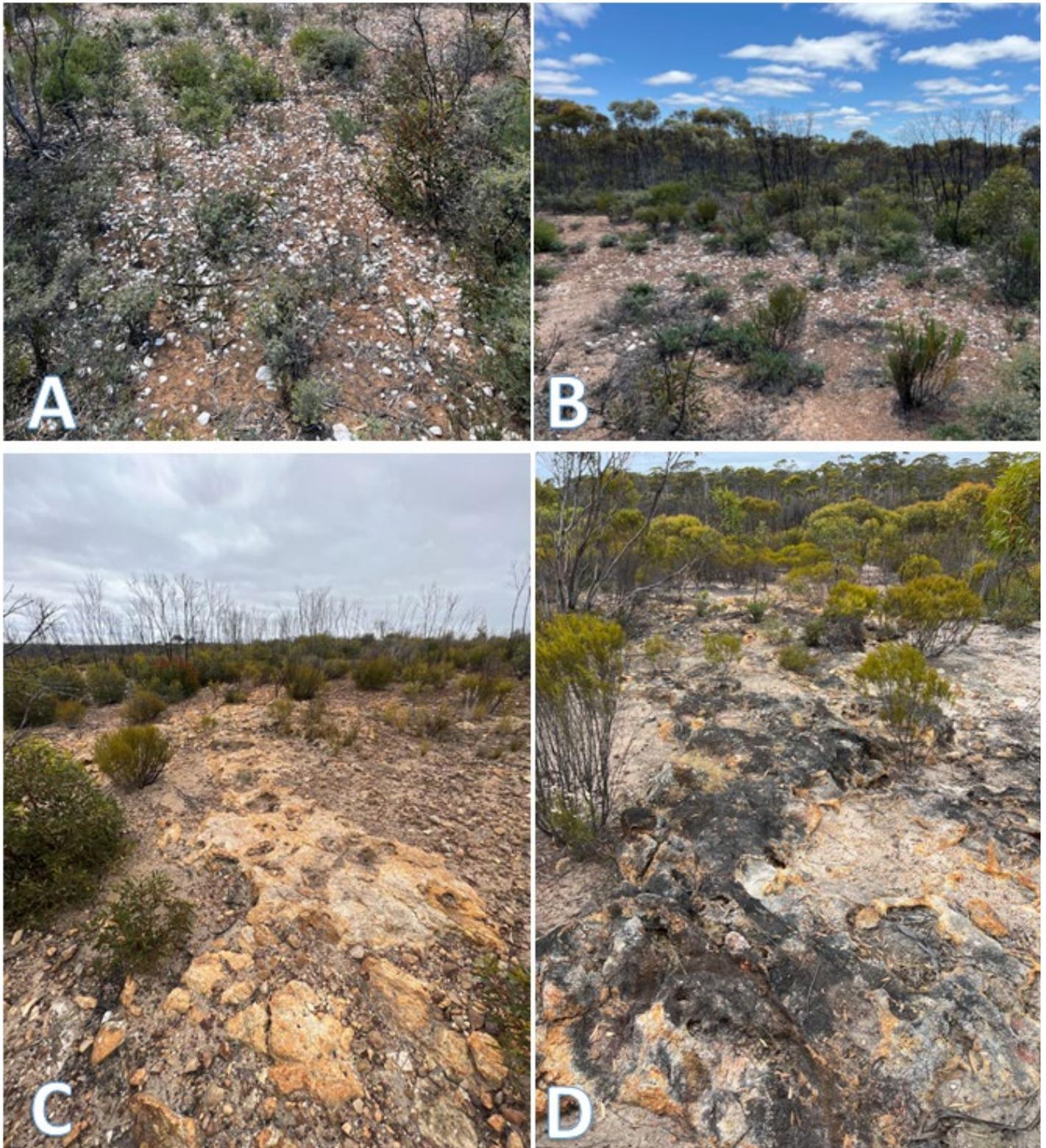


Figure 3: Inverse Distance contouring of the Ella's Rock geochemical soil data, showing the strong clustering of key LCT related elements

The Fitzgerald target measures approximately 700m x 1,000m. It appears to be associated with a subtle raised circular weathering feature, with lithium values peaking at 46.6ppm, with caesium at 2.88ppm and tantalum at 1.2ppm. The area around the anomaly has scattered white quartz and other very light-coloured rock fragments (see **Figure 4a** and **4b**), which may provide further evidence to suggest the presence of felsic pegmatites known to be a source for LCT deposits.



**Figure 4: Images A and B show a significant amount of quartz float, from the Fitzgerald anomaly and Ella's Trend. Images C and D represent examples of outcropping calcrete within the Baché anomaly**

Photo Ref	GDA Easting	GDA Northing	WGS Lat	WGS Long
Photo A	771447	6378082	-32.7016259	119.8955671
Photo B	771447	6378044	-32.7019734	119.8955769
Photo C	775644	6376884	-32.7113854	119.9406407
Photo D	775673	6376855	-32.7116335	119.9409621

**Table 1: Approximate coordinates for Photos referenced in Figure 4.**

The southern Baché target is the largest LCT-type anomaly defined within the tenement, measuring 1,600m x 1,400m. It is also the most anomalous and prominent of the three defined targets. Lithium values at this target peak at 54.7ppm, caesium at 3.34ppm and tantalum at 1.52ppm.

As with the other targets identified, the southern Baché anomaly is circular and very clearly outlined on remote imagery with associated subtle raised topography. It has been noted that there are several good outcrop to subcrop locations within the anomaly outline (see **Figures 4c** and **4d**). These outcrops typically consist of lighter colour lithologies, with what appears to be weak-to-moderate alteration.

In addition to the three LCT-type targets discussed above, a generally lower level fourth target with multiple LCT peaks was also identified, the Ella's Trend target. Ella's Trend represents a 12km long and approximately 300m to 1,000m wide anomalous Li, Cs, Ta trend, which encompasses the Fitzgerald target. This feature likely represents a significant structural zone which has constrained mineralising fluids or acted as a conduit for fluid flow.

Following the discoveries of the unusual and highly anomalous features discussed above, the Company is currently preparing to head back out into the field to conduct further detailed investigations of the exposed surface geology and peak anomalous areas.

### **Competent Person Statement:**

The information in this press release relating to geology and Exploration Results is based on information compiled, reviewed and assessed by Mr. Paddy Reidy, who is a Member of the Australasian Institute of Mining and Metallurgy. Mr. Reidy is a consultant to the Company and 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 by the 2012 Edition of the Australasian Code for reporting of Exploration Results, Mineral Resources and Ore Reserves (**JORC Code**). Mr. Reidy consents to the inclusion of the information in the form and context in which it appears.

The Company confirms that it is not aware of any new information or data that materially affects the information included in the original market announcement and, in the case of estimates of Mineral Resources or Ore Reserves, that all material assumptions and technical parameters underpinning the estimates in the relevant market announcement continue to apply and have not materially changed. The Company confirms that the form and context in which the Competent Person's findings are presented have not been materially modified from the original market announcement.

This announcement has been approved and authorised by the Board of Cavalier Resources.

**For further information:**

**Investor Relations**

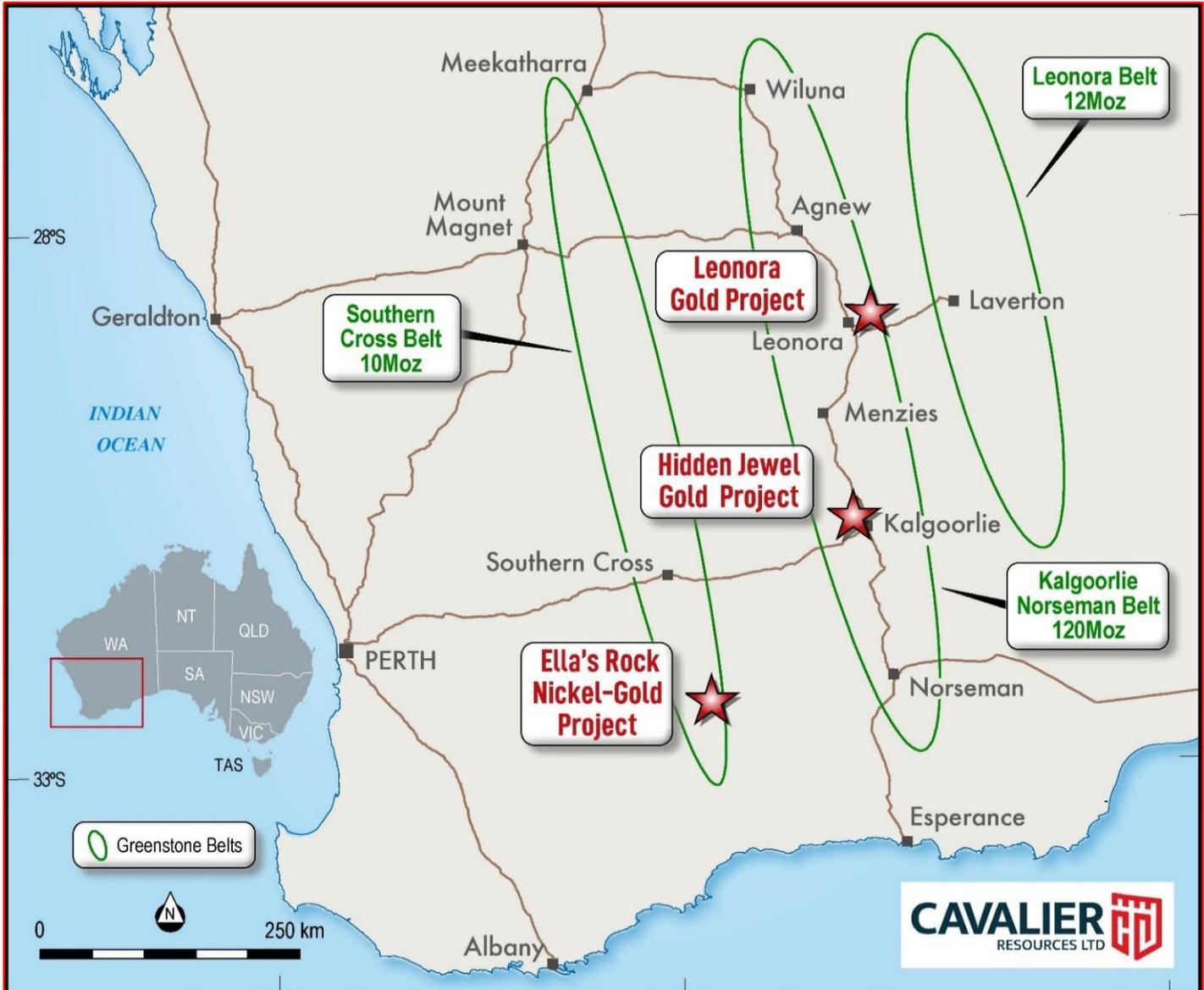
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**About Cavalier Resources**

The Company has interests in Tenements in Western Australia, collectively known as the Leonora Gold Project, Hidden Jewel Gold Project, and Ella's Rock Nickel-Gold Project, prospective for gold and nickel mineralisation.



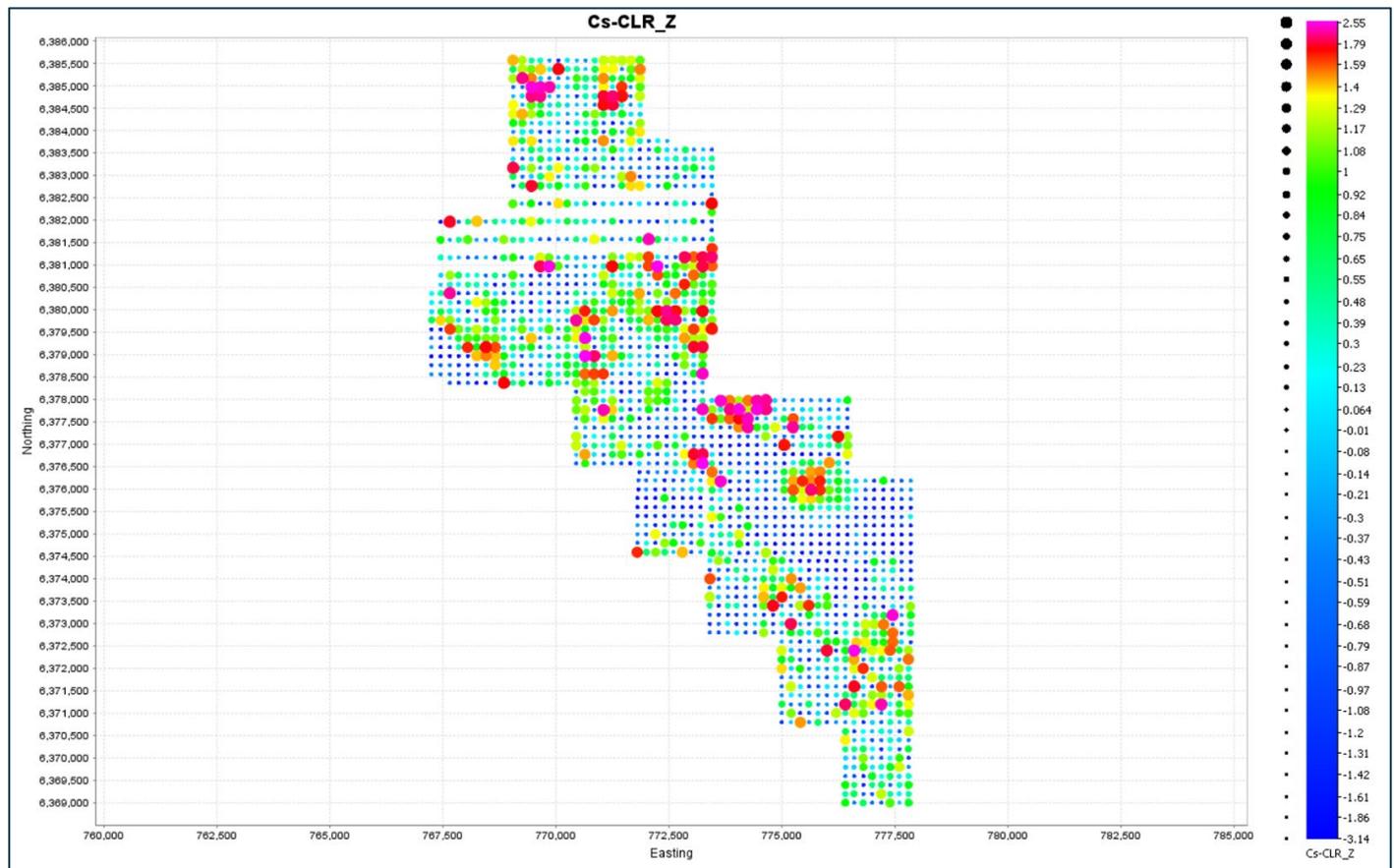
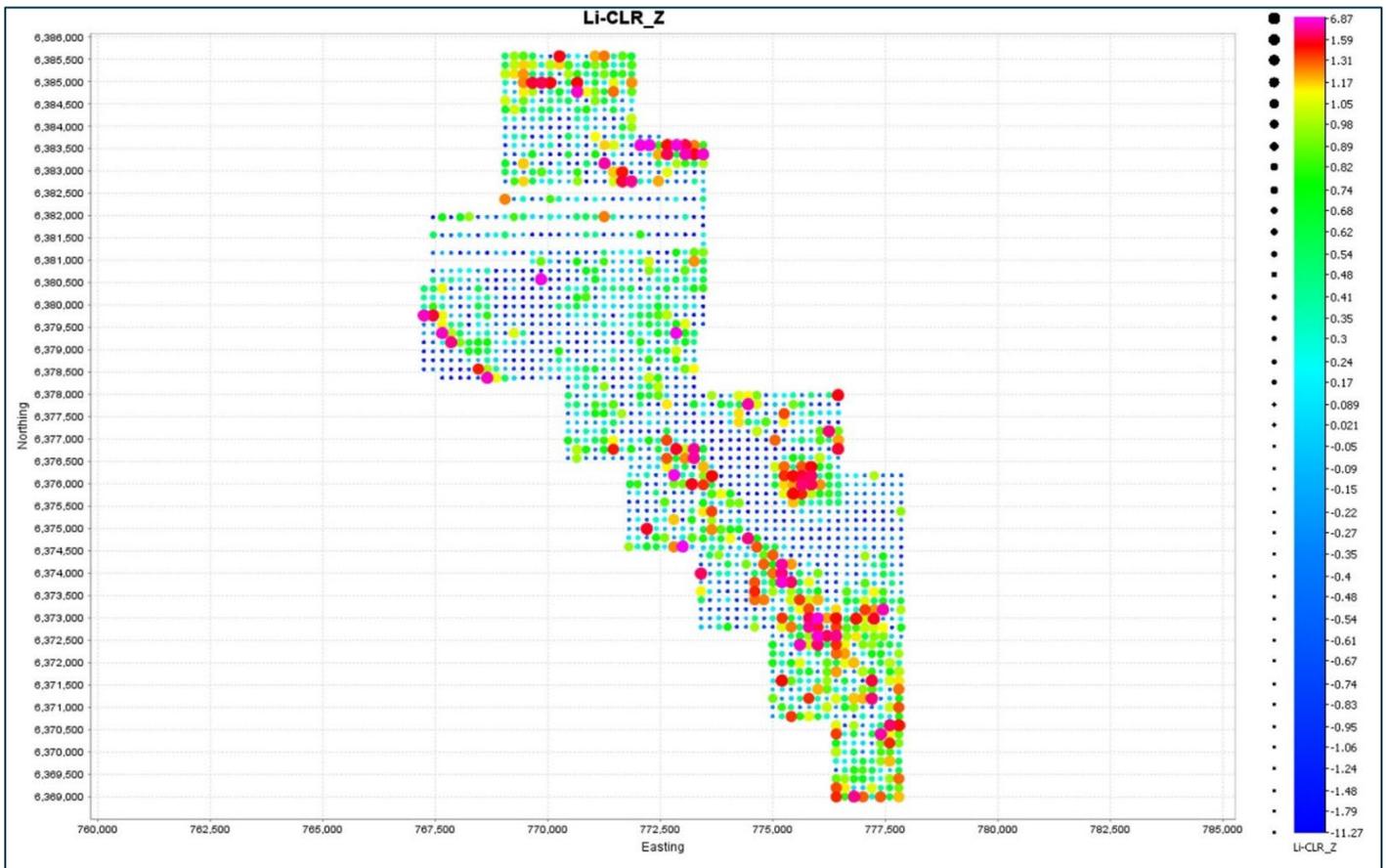
For more information on Cavalier Resources and to subscribe to our regular updates, please visit our website here and follow us on:

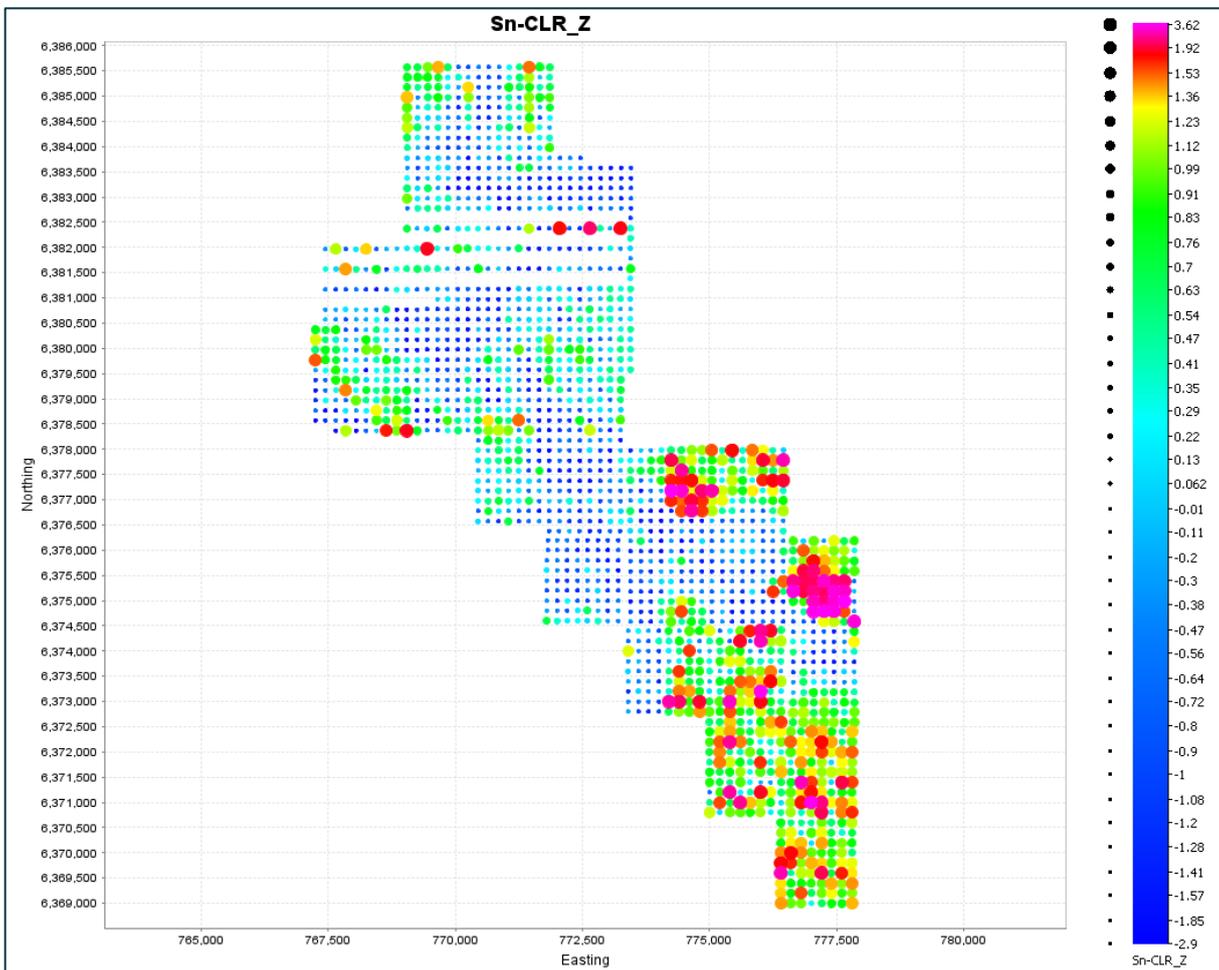
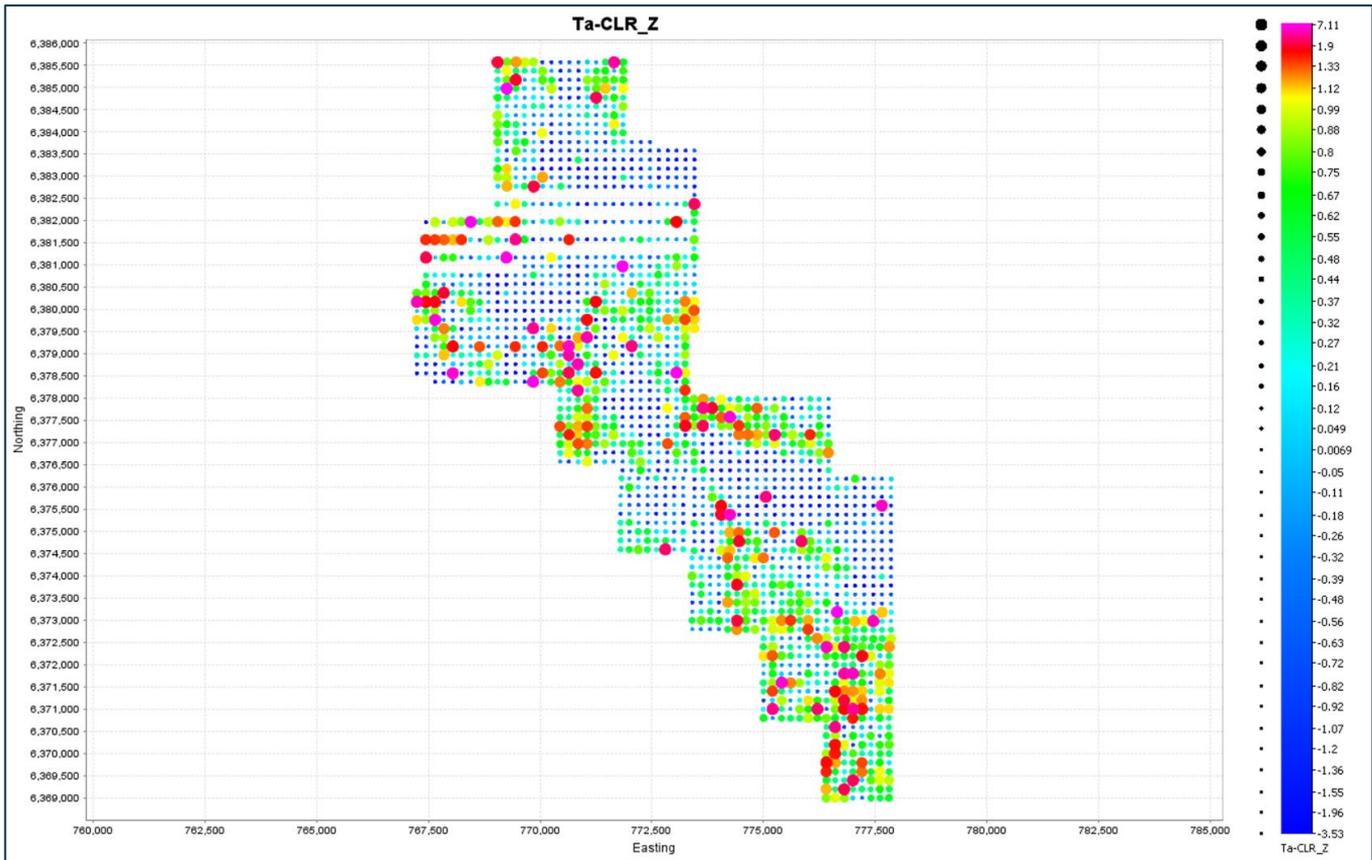
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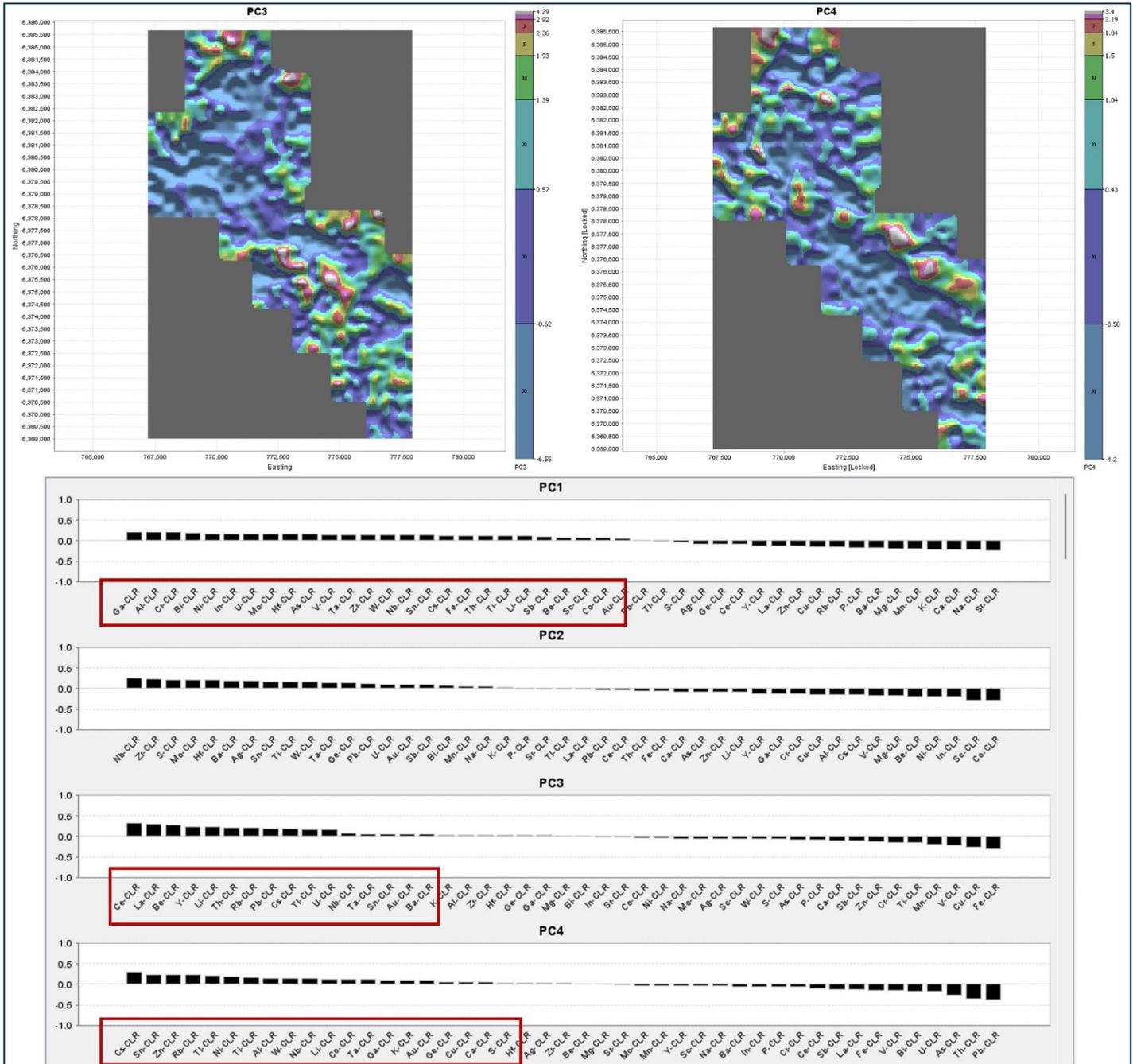
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## Appendix 1: Geochemical Maps – ioGAS exports





## Appendix 2: Inverse Distance contouring of the Ella's Rock geochemical soil data, showing the strong clustering of key LCT related elements



## Appendix 3: JORC Table 1

### JORC Table 1 Section 1

Criteria	JORC Code Explanation	Commentary
Sampling techniques	<ul style="list-style-type: none"> <li>• 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 downhole gamma sondes, or handheld XRF instruments, etc). These examples should not be taken as limiting the broad meaning of sampling.</li> <li>• Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used.</li> <li>• Aspects of the determination of mineralisation that are Material to the Public Report.</li> <li>• 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.</li> </ul>	<p>Most of the 1,810 soil samples were collected on a 200m-by-200m square grid. A portion of the northern lines were collected on a 400m-by-200m square grid.</p> <p>The samples were collected using a -2mm sieve at approx. depth 20-30cm into B horizon.</p>
Drilling techniques	<ul style="list-style-type: none"> <li>• 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).</li> </ul>	No drilling has been completed to date.
Drill sample recovery	<ul style="list-style-type: none"> <li>• Method of recording and assessing core and chip sample recoveries and results assessed.</li> <li>• Measures taken to maximise sample recovery and ensure representative nature of the samples.</li> <li>• 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.</li> </ul>	No drilling has been completed to date.
Logging	<ul style="list-style-type: none"> <li>• 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.</li> <li>• Whether logging is qualitative or quantitative in nature.</li> </ul>	<p>No drilling has been completed to date.</p> <p>The field geologist recorded for each sample: Grid area name, sample line, site ID, sample number, easting and northing coordinates, QAQC, site topography, soil description, comments.</p>
Sub-sampling techniques and	<ul style="list-style-type: none"> <li>• If core, whether cut or sawn and whether quarter, half or all core taken.</li> </ul>	No drilling has been completed to date.

Criteria	JORC Code Explanation	Commentary
sample preparation	<ul style="list-style-type: none"> <li>• If non-core, whether riffled, tube sampled, rotary split, etc and whether sampled wet or dry.</li> <li>• For all sample types, the nature, quality and appropriateness of the sample preparation technique.</li> <li>• Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples.</li> <li>• 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.</li> <li>• Whether sample sizes are appropriate to the grain size of the material being sampled.</li> </ul>	
Quality of assay data and laboratory tests	<ul style="list-style-type: none"> <li>• The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total.</li> <li>• 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.</li> <li>• 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.</li> </ul>	<p>All samples have been submitted to ALS Laboratories, Wangara.</p> <p>Samples were pulverised (PUL-31L), and further sieved to – 75µm in preparation for an aqua regia digestion for gold to remove SiO<sub>2</sub> for the maximal recovery of silica hosted minerals. The samples were then further analysed using a multi-element four acid digest for a 48-element (lab code Au-TL43 + ME-MS61).</p> <p>This method of analysis is considered appropriate for early-stage of this project. Depending on the nature of mineralisation identified in future development of the project, the chosen analytical method may change.</p>
<b>Verification of sampling and assaying</b>	<ul style="list-style-type: none"> <li>• The verification of significant intersections by either independent or alternative company personnel.</li> <li>• The use of twinned holes.</li> <li>• Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.</li> <li>• Discuss any adjustment to assay data</li> </ul>	<p>All sample data is recorded in field notebooks, then transcribed into a digital format, validated, and entered into the company database. Photos of all soil sample locations are retained on file for review.</p> <p>Post analytical data evaluations were completed on the results of all collected soils samples. These studies were completed as a means to interrogate the data to find trends and statistical populations. The two major studies completed included:</p> <ol style="list-style-type: none"> <li>1) Inverse Distance (ID) Weighted Gridding, using a grid cell size of 78m, weighting power of 2, weighting slope 1 and a search radius of 312m with a linear log option. Using a Geosoft Target ArcGIS plugin.</li> <li>2) An ioGAS Principal Component Analysis study (PCA) completed to identify the closely associated elements. The key resulting PC formulas are defined as below, showing strong grouping of Li, Cs and Ta in both PC3 and PC4: <ul style="list-style-type: none"> <li>• PC3: 5.9Be + 5.1Li + 4.5Rb + 4.1Cs + 1.4Ta + 1.3Sn + 1Ba</li> <li>• PC4: 2.7Cs + 2.1Sn + 2.1Zn + 2.1Rb + 1.9Ti + 1.7Ni + 1.1Li + 1Ta</li> </ul> </li> </ol>

Criteria	JORC Code Explanation	Commentary
<b>Location of data points</b>	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. <ul style="list-style-type: none"> <li>• Specification of the grid system used.</li> <li>• Quality and adequacy of topographic control</li> </ul>	All sampling locations are surveyed using a handheld GPS, accurate to within +/- 3m for easting and northings. All location data is relevant to UTM MGA 94.  Topographic measurements were not obtained for grab sampling
<b>Data spacing and distribution</b>	<ul style="list-style-type: none"> <li>• Data spacing for reporting of Exploration Results.</li> <li>• 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.</li> <li>• Whether sample compositing has been applied.</li> </ul>	Samples were mainly collected on a 200m-by-200m square grid as this was deemed the most appropriate method to get maximal geochemical coverage over the full extent of the Ella's Rock tenement.  The sample spacing is not sufficient to establish a clear geological or grade continuity.
<b>Orientation of data in relation to geological structure</b>	<ul style="list-style-type: none"> <li>• Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type.</li> <li>• 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.</li> </ul>	Samples were collected as a means to provide maximum geochemical coverage of the held tenement. At this early stage, no known mineralisation trends were established, and therefore grid spacing was distributed in an even square formation.
<b>Sample security</b>	<ul style="list-style-type: none"> <li>• The measures taken to ensure sample security.</li> </ul>	All samples were collected by Cavalier Resources' geologists and delivered directly to the lab for analysis
<b>Audits or reviews</b>	<ul style="list-style-type: none"> <li>• The results of any audits or reviews of sampling techniques and data.</li> </ul>	No audits or reviews were completed.

## JORC Table 1 Section 2

Criteria	JORC Code Explanation	Commentary
<b>Mineral tenement and land tenure status</b>	<ul style="list-style-type: none"> <li>• 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.</li> <li>• 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.</li> </ul>	The Ella's Rock Project consist of four granted tenements E74/662, E74,717, E74/718 and E77/2998 in the Forrestania region of Western Australia.  All tenements are in good standing.
<b>Exploration done by other parties</b>	<ul style="list-style-type: none"> <li>• Acknowledgment and appraisal of exploration by other parties.</li> </ul>	No previous exploration has been carried out by other parties on the tenements.
<b>Geology</b>	<ul style="list-style-type: none"> <li>• Deposit type, geological setting and style of mineralisation.</li> </ul>	No discovery has yet been made. However, work currently undergoing is targeting greenstone-hosted gold, and the potential for Lithium-Caesium-Tantalum pegmatites.

<p><b>Drillhole Information</b></p>	<p>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:</p> <ul style="list-style-type: none"> <li>• easting and northing of the drill hole collar</li> <li>• elevation or RL (Reduced Level – elevation above sea level in metres) of the drill hole collar</li> <li>• dip and azimuth of the hole</li> <li>• down hole length and intercept depth</li> <li>• hole length</li> <li>• 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.</li> </ul>	<p>No drilling has been completed to date.</p>
<p><b>Data aggregation methods</b></p>	<ul style="list-style-type: none"> <li>• In reporting Exploration Results, weighting averaging techniques, maximum and/or minimum grade truncations (eg cutting of high grades) and cut-off grades are usually Material and should be stated.</li> <li>• 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.</li> <li>• The assumptions used for any reporting of metal equivalent values should be clearly stated.</li> </ul>	<p>No drilling has been completed to date.</p>
<p><b>Relationship between mineralisation widths and intercept lengths</b></p>	<ul style="list-style-type: none"> <li>• These relationships are particularly important when reporting exploration results</li> <li>• If the geometry of the Mineralisation with respect to the drill hole angle is known, its nature should be reported</li> <li>• If it is not known and only the down hole lengths are reported, there should be a clear statement to this effect (eg 'down hole length, true width not known').</li> </ul>	<p>No drilling has been completed to date.</p>
<p><b>Diagrams</b></p>	<ul style="list-style-type: none"> <li>• 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.</li> </ul>	<p>See figures provided within the main body of the report.</p>
<p><b>Balanced reporting</b></p>	<ul style="list-style-type: none"> <li>• 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.</li> </ul>	<p>No drilling has been completed to date.</p>
<p><b>Other substantive</b></p>	<ul style="list-style-type: none"> <li>• Other exploration data, if meaningful and material, should be reported including (but not limited to):</li> </ul>	<p>Not used to date.</p>

<p><b>exploration data</b></p>	<p>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>	
<p><b>Further work</b></p>	<ul style="list-style-type: none"> <li>• The nature and scale of planned further work (eg tests for lateral extensions or depth extensions or large-scale step- out drilling).</li> <li>• Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive.</li> </ul>	<p>See main body of text.</p>