

# NI-CU-CO ANOMALISM IDENTIFIED IN SOIL GEOCHEMISTRY AT YALLALONG PROJECT

## Highlights

- Soil geochemistry sampling program unveils significant Ni-Cu-Co anomalies at the Yallalong project in the Midwest.
- Anomalies occur over the interpreted position of mafic / ultramafic intrusions and strongly correlate with magnetic anomalies.
- > Final report from CSIRO expected shortly.
- > POW's approved, working towards heritage clearance and drilling.

Octava Minerals Ltd (ASX:OCT) ("Octava" or the "Company"), a Western Australia focused explorer of the new energy metals Lithium, Nickel, PGM's and gold, is pleased to report that assays results have been received from a soil geochemistry sampling program at Yallalong.

The Yallalong project is located ~ 220km to the northeast of the port town of Geraldton with an exploration area of ~ 63km2. It is prospective for and Ni-Cu–PGM mineralisation related to mafic – ultramafic intrusions along the Darling Fault that borders the Yilgarn craton, similar to the Chalice Julimar (ASX:CHN) discovery to the south. See Figure 1 below.



Figure 1. Yallalong Location map



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#### **Board Members**

Clayton Dodd – Chairman Damon O'Meara – Non-Executive Director Feiyu Qi – Non-Executive Director Bevan Wakelam – Managing Director / CEO

#### Projects

East Pilbara (Talga) – lithium & gold East Kimberley – nickel & PGM's Yallalong – gold & nickel Octava Minerals entered into an exploration collaboration with CSIRO on the Yallalong project through the CSIRO Kick-Start program, as previously announced (ASX 8 May 2023). The collaboration with CSIRO involves statistical and machine learning models from the pre-soil survey stage through to the final stage of interpretation of geochemical analyses, using a single framework for integrating landscape context throughout the exploration process.

The geochemical soil sampling program, designed to optimise sample collection is now complete and assays results received.



Figure 2. Ni-Cu-Co anomalies overlaying magnetic survey at Yallalong.

The sampling results have revealed several prospective Ni-Cu-Co anomalies at Yallalong. These anomalies can be up to 400m across and strongly correlate to magnetitic highs. See Figure 2 above. Maximum assay values include 187ppm nickel, 279ppm copper and 130ppm cobalt.

With assay results now received, CSIRO are completing interpretation work and a final report is expected to be received shortly. POW clearances have been received and work towards gaining heritage clearance to enable drilling to commence is in progress.

This announcement has been authorised for release by the Board.

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### About Octava Minerals Ltd

Octava Minerals Limited (ASX:OCT) is a Western Australian based green energy metals exploration and development company. The Company has 3 strategically located projects in geographically proven discovery areas, with the key project being the East Pilbara (Talga) lithium project.

### **Competent Person Statement**

The information in this report that relates to Exploration Results is based on information compiled by Lyndal Money, a Competent Person who is a Member of the Australasian Institute of Mining and Metallurgy. Ms. Money is a full-time employee of Octava Minerals Limited, who has sufficient experience that is relevant to the style of mineralisation and type of deposit under consideration and to the activity being undertaken to qualify as a Competent Person as defined in the 2012 edition of the Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves. Ms. Money consents to the inclusion in the report of the matters based on this information in the form and context in which it appears.

Where the Company references exploration results previously released it confirms it is not aware of any new information or data that materially effects the information included in the relevant market announcement. The form and context in which the Competent Person's findings are presented have not been materially modified from the original market announcement.

### Section 1 Sampling Techniques and Data

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

Criteria	JORC Code Explanation	Commentary
Sampling techniques	<ul> <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 down hole 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>	<ul> <li>The soil samples were collected in two surveys, one with a machine learned background pattern generated by CSIRO using conditioned Latin Hypercube Sampling (cLHS) to determine locations of stratified random samples based on ancillary information, the other with a higher density regular pattern (75m x 75m) around historically explored areas. A handheld GPS was used to locate the predefined sample location.</li> <li>A pick and shovel were used to dig to a depth of 20cm to target the soil layer below surface disturbance. Soil was sieved to pass 2mm and a sample of ~250g was collected in a paper envelope and labelled with the sample number corresponding with the sample ticket placed inside the envelope. The sample number and location was recorded on the GPS.</li> <li>In the course of this work, outcrop rock type was periodically noted to inform interpretation.</li> </ul>
Drilling techniques	• Drill type (e.g. core, reverse circulation, open-hole hammer, rotary air blast, auger, Bangka, sonic, etc.) and details (e.g. core diameter, triple or standard tube, depth of diamond tails, face-sampling bit or other type, whether core is oriented and if so, by what method, etc.).	• No drilling results were included in this report.
Drill sample recovery	<ul> <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 results were included in this report.
Logging	<ul> <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. Core (or costean, channel, etc.) photography.</li> <li>The total length and percentage of the relevant intersections logged.</li> </ul>	• No drilling results were included in this report.
Sub-sampling techniques and	<ul> <li>If core, whether cut or sawn and whether quarter, half or all core taken.</li> <li>If non-core, whether riffled, tube sampled, rotary split, etc. and whether sampled wet or dry.</li> </ul>	<ul> <li>No drilling was reported in this announcement.</li> <li>The soil sampling technique was conducted as per guidelines provided by LabWest for the collection of UltraFine+™ samples.</li> </ul>

Criteria	JORC Code Explanation	Commentary
sample preparation	<ul> <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>	<ul> <li>Duplicate samples were collected in the field, at a ratio of 1:27</li> <li>Samples were collected from a depth of 20cm to avoid possible surface contamination.</li> <li>Organic material was removed from the sample as much as possible.</li> <li>The recommended sample size for UltraFine+<sup>™</sup> samples was 200g, providing sufficient clay material for analysis.</li> <li>Groundwater percolating upward through soil deposits mobile metals on the surfaces of clays in soil. By its very nature, the UltraFine+<sup>™</sup> analysis method does not represent in situ material but surface accumulations of metals mobilised by groundwater. Anomalous results as compared to background would suggest a proximal source and further geological investigation would be required to confirm the source.</li> </ul>
Quality of assay data and laboratory tests	<ul> <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>	<ul> <li>The UltraFine+<sup>™</sup> analytical technique was recently developed by LabWest in conjunction with CSIRO, primarily with the intention of providing an exploration tool where geology was obscured beneath surface cover. Minute particles of metals transported in groundwater from depth accumulate on the surfaces of clay minerals in soils. In the UltraFine+<sup>™</sup> process, clay particles are separated from the soil sample and analysed for a suite of metals.</li> <li>This robust method has been determined to be effective for gold and base metals exploration. LabWest is NATA accredited and applies suitable standards, blanks and duplicates to their analysis procedures.</li> <li>The handheld GPS used during sample collection is considered appropriate for locating surface samples, with an accuracy of ~3m.</li> </ul>
Verification of sampling and assaying	<ul> <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>	<ul> <li>Verification of soil anomalies by rock chip sampling has not yet been done.</li> <li>Analysis data is supplied by Octava directly to Rocksolid for inclusion in the Octava surface geochemical database. The contractor collecting the soil samples compiled the GPS sample data into an Excel spreadsheet which was submitted to Octava for checking and forwarding to Rocksolid for incorporation into the database.</li> </ul>
Location of data points	<ul> <li>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.</li> <li>Specification of the grid system used.</li> <li>Quality and adequacy of topographic control.</li> </ul>	<ul> <li>No drilling or Mineral Resource estimation was referenced in this announcement.</li> <li>The grid system used for the location of the samples was, UTM GDA94, Zone 50.</li> <li>Topographic records from handheld GPS are not considered sufficiently accurate having a variability of ~5m.</li> </ul>
Data spacing and distribution	<ul> <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>	<ul> <li>The irregular spacing of soil samples, generated using cLHS is commonly used in digital soil mapping projects. Given an array of potential samples, the cLHS approach provides a mechanism to select a specified number of samples which provides a near-optimal representation of the distributions of the ancillary variables that define landscape variation within the project area, and thus provide a high degree of coverage of the diversity of potential sampling</li> <li>Continuity of mineralisation is yet to be determined.</li> <li>No compositing of soil samples has been done.</li> </ul>

Criteria	JORC Code Explanation	Commentary
Orientation of data in relation to geological structure	<ul> <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>	<ul> <li>No drilling data was included in this announcement.</li> <li>Machine learned landscape models which identify different landscape types based on spatial feature layers can be used to normalise for broad-scale landscape differences in regolith geochemistry, allowing more robust anomaly detection across large to regional soil sampling surveys.</li> </ul>
Sample security	• The measures taken to ensure sample security.	• Following collection, samples were carefully packed into boxes each day and stored on pallets at the site camp. From there, samples were securely transported to LabWest in Perth for analysis. Following analysis, sample pulps were stored at LabWest. Long term storage of soil pulps will be facilitated a secure Octava facility in Osborne Park.
Audits or reviews	• The results of any audits or reviews of sampling techniques and data.	<ul> <li>Historical soil sampling across the Yallalong project used various analytical methods and generated a limited suite of analytes. The UltraFine+™ method was chosen to generate a broad suite of elements for comparison with historical sampling. Apparent anomalies were verified by comparison with indicator elements included in the analyte suite.</li> </ul>

# 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	<ul> <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>	<ul> <li>The Yallalong Project comprises one (1) Exploration Licence E70/5051, covering an area of about 63.5km2 and one Exploration Licence application E09/2823 (94km2). The project is about 220km NE of the city of Geraldton and 600km north of Perth.</li> <li>An application has been made to DMIRS to extend the licence E70/5051 for an additional 5 years</li> <li>The Yallalong project is covered by the Wajarri Yamatji #1 and Mullewa Wadjari Community native title claims.</li> <li>There are no known impediments to exploration on the tenements.</li> </ul>
Exploration done by other parties	Acknowledgment and appraisal of exploration by other parties.	<ul> <li>Until 2013 E70/5051 remained untested by modern exploration</li> <li>West of the Darling Fault has been lightly explored for sediment hosted or roll-front uranium mineralisation</li> <li>DeBeers carried our exploration in the region for diamonds, however no kimberlitic indicators were identified</li> <li>Prospectors Kennedy and Haworth carried out rock chip sampling identifying a quartz vein containing anomalous Sb, Pb, Cu and Au in the south of E70/5051.</li> <li>Traka Resources (2015-2017) completed rock chip and soils sampling, geophysical surveys and RC drilling in the vicinity of the anomalous quartz vein, with the majority of studies focussed on occurrences of antimony and to a lesser degree gold. Tracka withdrew from the project in 2017</li> <li>Attgold Pty Ltd (2017-2022) compiled all previous exploration data into a GIS format and complete age dating of mineralised antimony rock chips to aid in identifying prospective targets.</li> </ul>

Geology	Deposit type, geological setting and style of mineralisation.	<ul> <li>The Yallalong project area straddles the Darling Fault, a 1500km long major crustal suture which forms the western margin of the Yilgarn Craton. Along much of its length Phanerozoic sediments of the Perth Basin lie to the west of the fault.</li> <li>In the Yallalong area the fault has bifurcated to form the margin of the Yallalong Basin which contains deformed and strongly foliated rocks analogous to Proterozoic basins such as the Bryah and Yerrida basins on the northern edge of the Yilgarn Craton.</li> <li>The project area is considered to be prospective for lode style gold mineralisation associated with structures related to the crustal scale Darling Fault and Ni-Cu–PGM mineralisation related to mafic – ultramafic intrusions.</li> </ul>
Drill hole Information	<ul> <li>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:</li> <li>easting and northing of the drill hole collar</li> </ul>	No drill holes have been reported in this announcement
	<ul> <li>elevation or RL (Reduced Level – elevation above sea level in metres) of the drill hole collar</li> </ul>	
	dip and azimuth of the hole	
	down hole length and interception depth	
	hole length.	
	• If the exclusion of this information is justified on the basis that the information is not Material and this exclusion does not detract from the understanding of the report, the Competent Person should clearly explain why this is the case.	
Data aggregation	• In reporting Exploration Results, weighting averaging techniques, maximum	Data has not been aggregated in this early stage of exploration.
methods	and/or minimum grade truncations (e.g. cutting of high grades) and cut-off grades are usually Material and should be stated.	• Contour intervals for nickel, copper and cobalt were selected to highlight the most anomalous results relative to background and determine if these form a cohesive zone of
	• Where aggregate intercepts incorporate short lengths of high-grade results and	anomalism.
	tonger 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.	<ul> <li>Whilst every care was taken to accurately present the geochemical results, soil sampling data should be considered indicative only as the anomalies have not as yet been verified by other exploration methods.</li> </ul>
	• The assumptions used for any reporting of metal equivalent values should be clearly stated.	

Relationship between mineralisation widths and intercept lengths	<ul> <li>These relationships are particularly important in the reporting of 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 (e.g. 'down hole length, true width not known').</li> </ul>	• Mineralisation widths are not discussed here, and no drilling results were included.
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.	<ul> <li>Maps are included in the body of the announcement.</li> <li>The Yallalong project is at an early exploration stage and no significant discovery has been outlined.</li> </ul>
Balanced reporting	<ul> <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>	• All relevant and significant exploration results have been reported.
Other substantive exploration data	<ul> <li>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.</li> </ul>	Past company exploration results indicate an unresolved potential which will be progressively reassessed using modern exploration methods.
Further work	<ul> <li>The nature and scale of planned further work (e.g. 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>	• Further work will consist of verification rock chip sampling of outcrop, followed by aircore drilling and RC drilling if warranted.