

ASX Announcement

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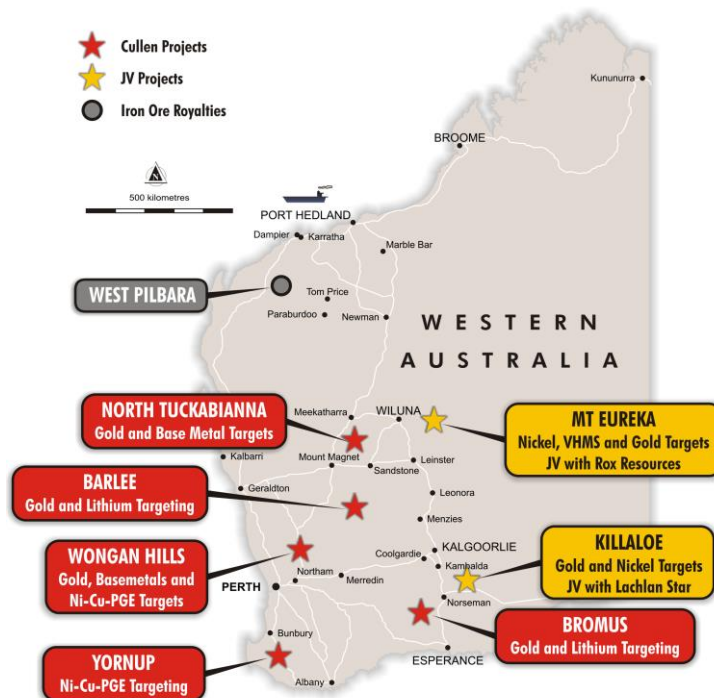
ASX:CUL

18 January 2023

Ultrafine (UF) soil sampling outlines new targets, at Yornup, southwest W.A.

- UF* assays have been received for soil sampling completed at **Yornup, southwest W.A. (E70/5405)** targeting, ultramafic bodies for Julimar-type, Ni-Cu-PGE sulphides.
- The assays have identified a **high-priority geochemical target, ‘Sunnyside’** that may indicate the presence of sulphide mineralisation associated with mafic-ultramafic lithologies.
- Also at Sunnyside, soil assays show a coincident Nb-Sn-Ta-W-Ti anomaly and a Li-Cs anomaly (open to the east) - the spatial relationship of Li-Cs and rare metals may indicate zonation within a larger system.
- Further soil / laterite sampling and ground EM and/or drone magnetic surveying are planned to refine targeting.

WESTERN AUSTRALIA | Project Location Map



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YORNUP, South West Terrane, W.A., E70/5405 (Cullen 100%) - targeting Ni-Cu-PGE sulphide mineralisation.

Introduction

Yornup is located in the Balingup Metamorphic Belt, within the highly prospective West Yilgarn Ni-Cu-PGE Province. UFF-PE (UF*) assays have been received for 138 B-horizon soil samples taken at 50-100m spacings along public roads and along tracks (with landowner permission).

The soil sampling survey was completed to:

- Validate historical geochemical Cr anomalies in vacuum drilling and isolated Pt-Pd results using an independent multi-element data set;
- Test ultrafine soil fraction across different regolith settings, i.e., sandplain, erosional-residual and depositional terrain;
- Identify PGE-Ni-Cu anomalies associated with mafic-ultramafic intrusive rocks and prioritise targets for follow-up geochemical surveys and ground/airborne geophysical surveys; and,
- Explore the tenement for rare metal pegmatite and REE mineralisation.

* The samples were submitted to Labwest Minerals Analysis Pty Ltd, Perth, for UFF-PE analysis of 50 elements by ICP following a microwave aqua regia digest. The extraction of the ultrafine (<2 µm) fraction was done by Labwest as part of the sample preparation.

Results

The UF soil results have identified a **high-priority geochemical target**, ‘**Sunnyside**’ located west and southwest of the “T-3” Cr prospect that was identified by West Coast Holdings Ltd (WAMEX report A18173) based on roadside vacuum drilling (Fig.1).

The **Sunnyside** multi-element geochemical anomaly trends for about 1km southwest and comprises an association of **Cr-Bi-Fe-Mo-Te-Cd-As-Sb**-(Mn-Co-Ni-Pt-Ge-Au) that may indicate the presence of sulphide mineralisation associated with mafic-ultramafic lithologies. The width of the anomaly is approximately 250m along the northern E-W Traverse (5) and 100m along the southern E-W Traverse (4) (see Figs.1 and 4) remaining open to the west. Sunnyside is located along strike of an interpreted ultramafic unit based on historical aeromagnetic interpretation and field studies (WAMEX report A58087).

Also at Sunnyside, UF soils show a coincident **Nb-Sn-Ta-W-Ti-(Zr-Li-Cs)** anomaly along the northern Traverse 5 and a **Li-Cs** anomaly at the eastern end of the southern Traverse 4 (open to the east). The spatial relationship of Li-Cs and rare metals may indicate zonation within a larger system (Fig.4).

At the ‘**Yornup Northeast**’ target, sampling was confined to the eastern roadside but a field inspection on adjoining paddocks to the east of historical Cr prospect “T-5”, showed variably weathered mafic and ultramafics sub- and outcrop.

Further to the south, at the historical Cr prospect “T-7”, UF soils show elevated PGE and Ni concentrations (see Fig.1).

Conclusions

UF soils show geochemical signatures that appear to reflect underlying bedrock in areas of sandplain cover and residual soil. In transported cover, i.e., colluvium, the geochemical signatures in UF soil appear to be weaker than in near-by vacuum drill holes, however, the UF soil results seem to reflect the nearby and up-slope bedrock signatures.

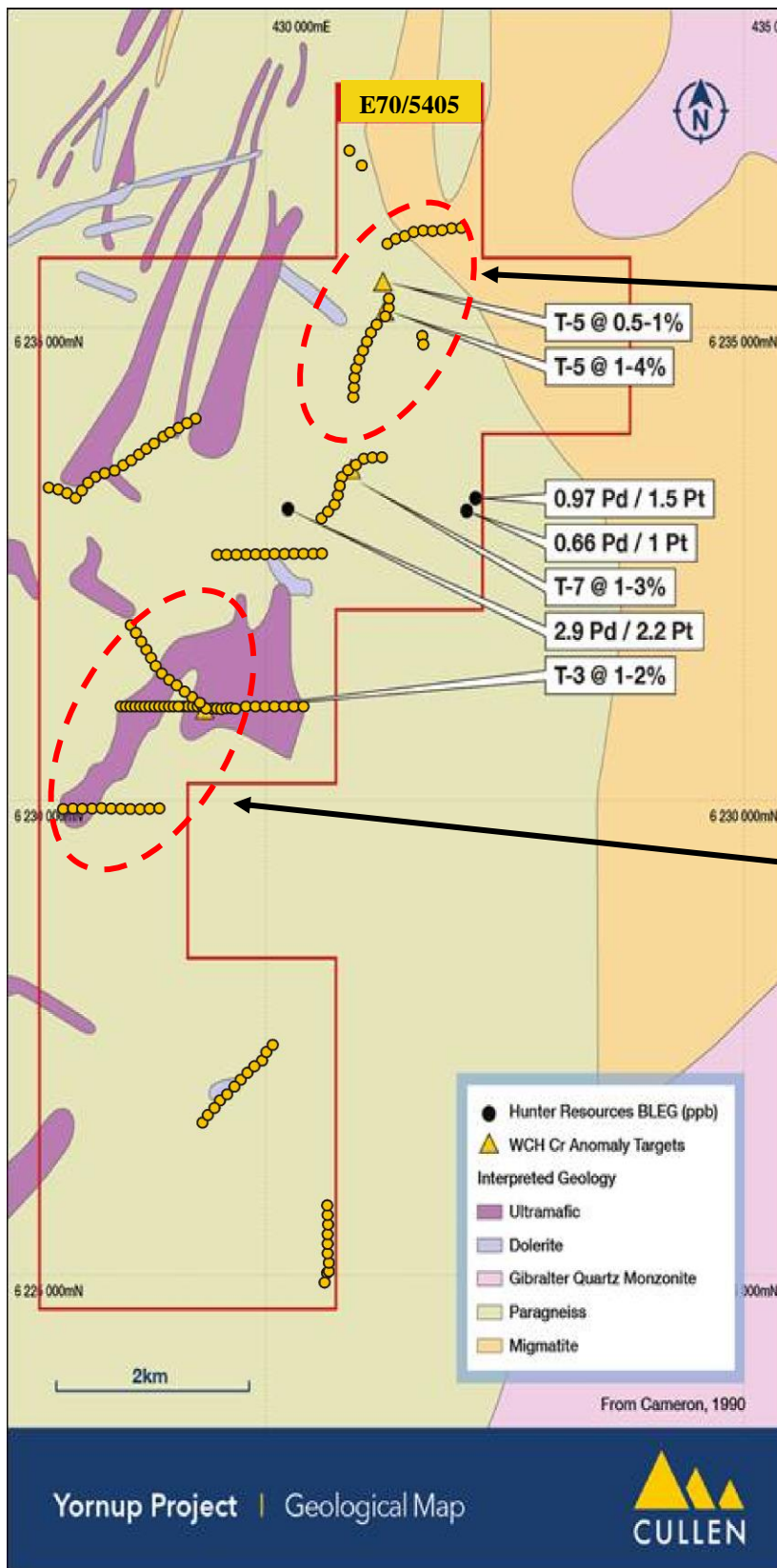
Further work planned

High Priority Ni-PGE target ‘Sunnyside Prospect’ and Sn-Ta-W-Nb and Cs-Li anomalies

Where UF soils are overlying sandplain at Sunnyside, extraction of laterite gravel is recommended for select samples to enable direct comparison with regional laterite data sets with respect to magmatic Ni-PGE-(Cu) mineralisation and pegmatite Sn-Ta-W-Nb and LCT mineralisation. In-fill UF soil sampling (*at 50m spacing along traverses 200-400m apart is recommended*), and high resolution drone mag survey could assist with the interpretation of the geochemical data in relation to the complex structural setting of mafic-ultramafic and felsic units. Follow-up ground EM may be recommended on refined targets.

Yornup Northeast Prospect

Geological mapping and a magnetic susceptibility survey of rock outcrop and sub-crop to assist with the interpretation of the geochemical data, and, grid-based UF soil sampling around and across mafic-ultramafic outcrop east of historical Cr-PGE anomalies extending from “T-5” to “T-7.”



Yornup Northeast

- Historical Cr anomalies in vacuum drilling along road reserve – “T” series labels.
- UF soil sampling shows elevated Cr concentrations in colluvium along the eastern road reserve.
- Field inspection shows presence of mafic-ultramafic rocks sub- and outcropping on paddock and along gully.
- No historical records of drilling and/or soil sampling east of Cr anomaly in vacuum drilling.

Sunnyside Prospect

- Historical Cr anomalies in vacuum drilling along road reserve (“T-3”).
- UF soil sampling shows strongly anomalous Cr in soil on sandplain profile along two traverses c. 1 km apart.
- Cr anomalies broadly associated with **As-Bi-Sb-Te-(Pt-Au-Ni)** in UF soil sampling.
- UF soil also shows a coincident **Sn-Ta-W** anomaly along the northern E-W traverse and a **Li-Cs** anomaly at the eastern end of the southern E-W traverse.

Fig.1 Summary of UF soil sample assays which identifies two priority prospects.

Cullen’s recent **Soil sampling traverses located on Geological Map** extracted from WAMEX A29958 with some BLEG sampling assays by Hunter Res. Cr anomalies (%) from West Coast Holdings (WCH) RAB drilling (“T-3,5,7”) – WAMEX A18173.

Background

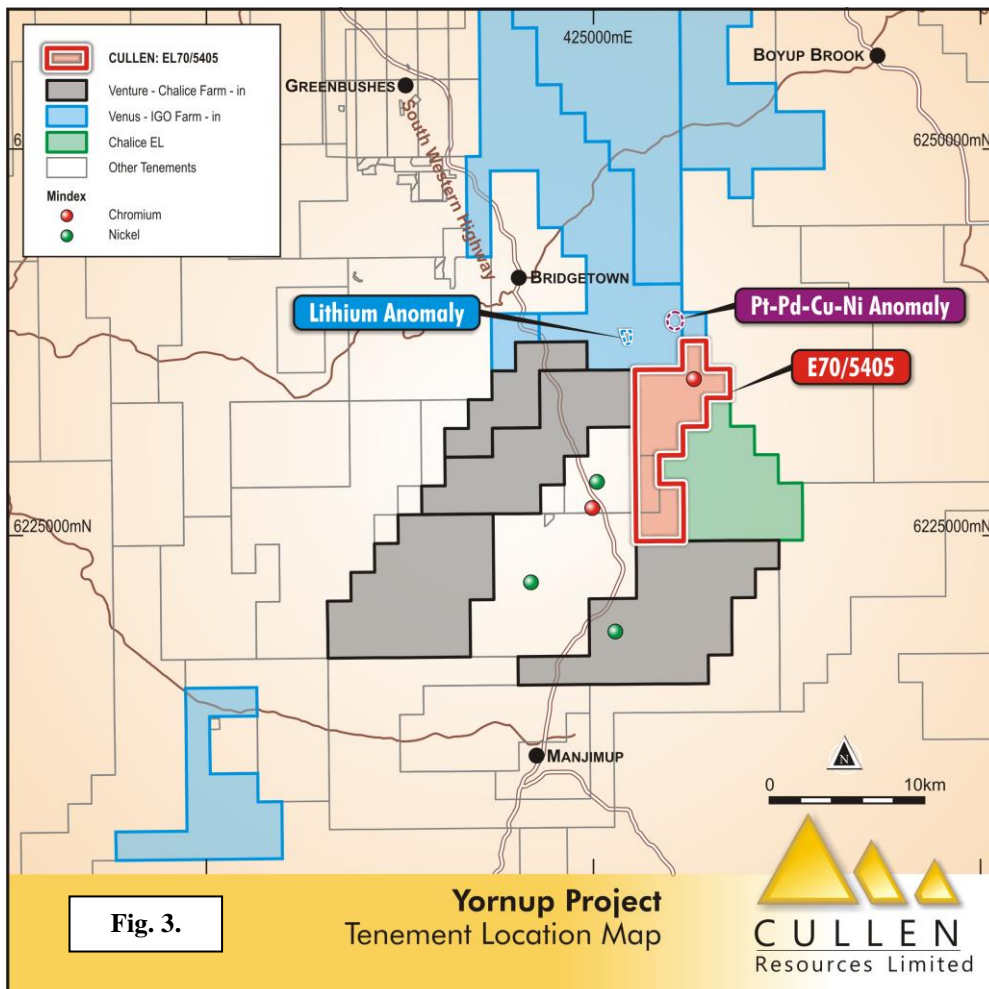
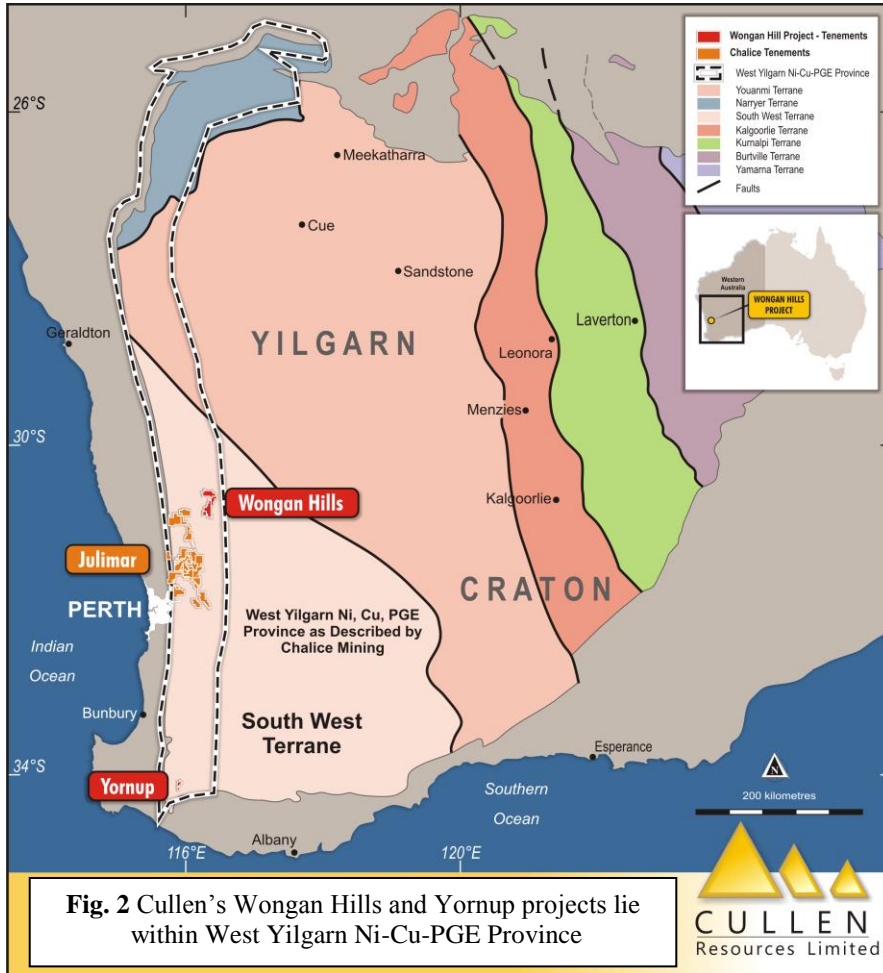
E70/5405 lies towards the southern limit of the “West Yilgarn Ni-Cu-PGE Province” (Fig.2) first outlined by Chalice Mining Limited (ASX:CHN; 4 May 2021) and adjoins Venture Mineral’s tenure, the subject of a Farm-In by Chalice Mining Ltd. E70/5405 also adjoins the Bridgetown East Ni-Cu-PGE Project owned by Venus Metals Corporation Ltd (“VMC”), and the subject of an exploration farm-in by a subsidiary of IGO Limited (ASX:VMC; 27-6-2022) – Fig.3.

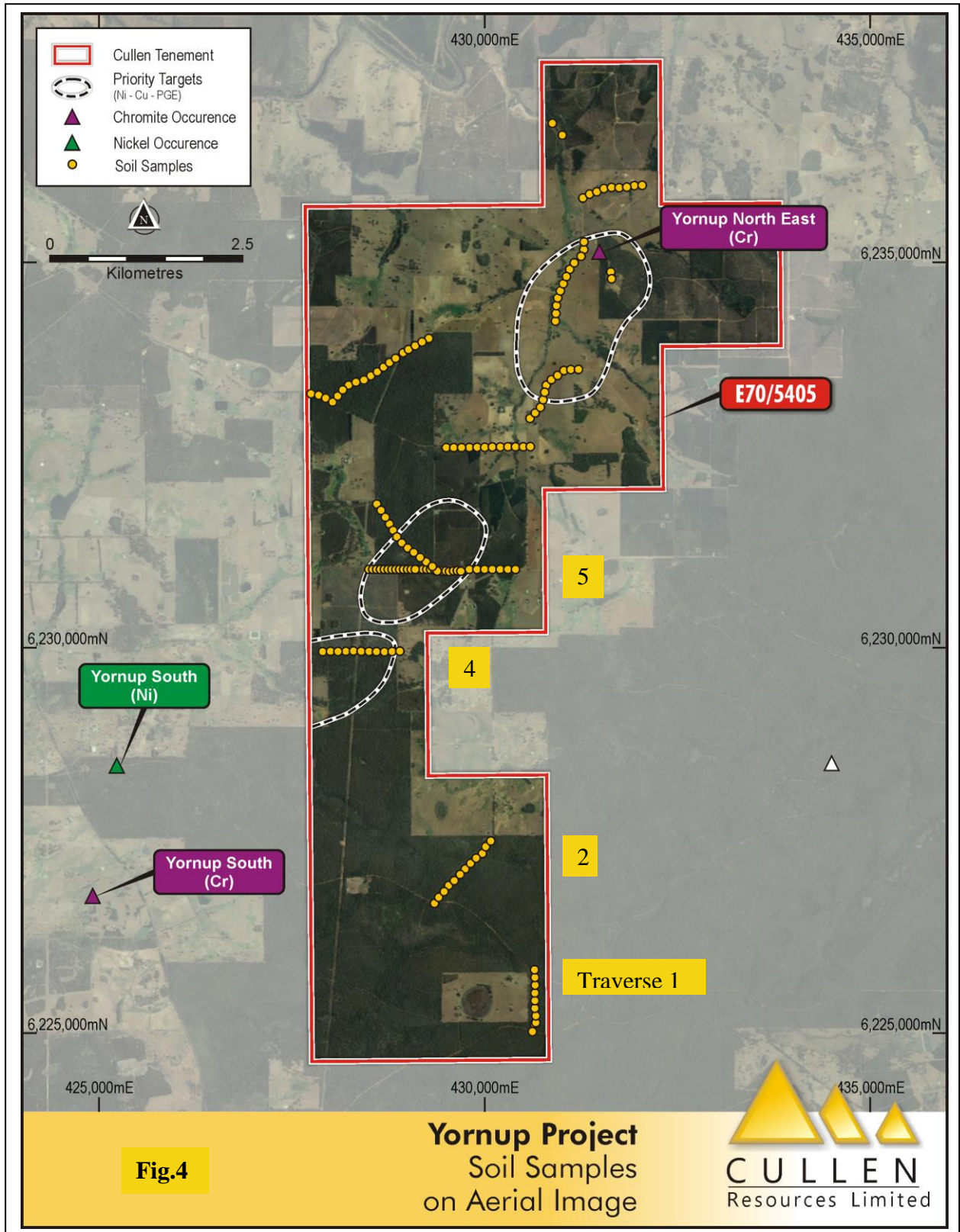
E70/5405 includes the **Yornup North East** chromium prospect from where an intersection of 2m at 7.4% Cr has been reported by West Coast Holdings (**WAMEX A18173**), and is part of a NE-SW trend of nickel and chromium occurrences including Palgarup (Ni) and Yornup South (Ni - Cr) The mafic - ultramafic complex at Yornup consists of olivine gabbro, harzburgite, lherzolite, and dunites that have been extensively serpentinised (Hassan, 1998). Historical sampling (**WAMEX A98223, A79877**) of lateritic lag along roads and tracks across E5405, returned anomalous chromium (Cr), nickel (Ni), and copper (Cu) values.

Anomalous platinum (Pt) and palladium (Pd) levels were also reported in BLEG stream sediment samples with up to: **0.8 ppb Au, 2.9 ppb Pd and 2.2 Pt ppb** near mapped ultramafics, which include : serpentinites, talc schist, pyroxenites and peridotites in a basement of paragneiss (Cameron,1990, **WAMEX A29958**, see Fig.1). Cullen also notes Pt-Pd-Cu-Ni and Li geochemical anomalies which lies along strike just to the north of E70/5405 – Fig.3 (see ASX:VMC; 27-6-2022).

References:

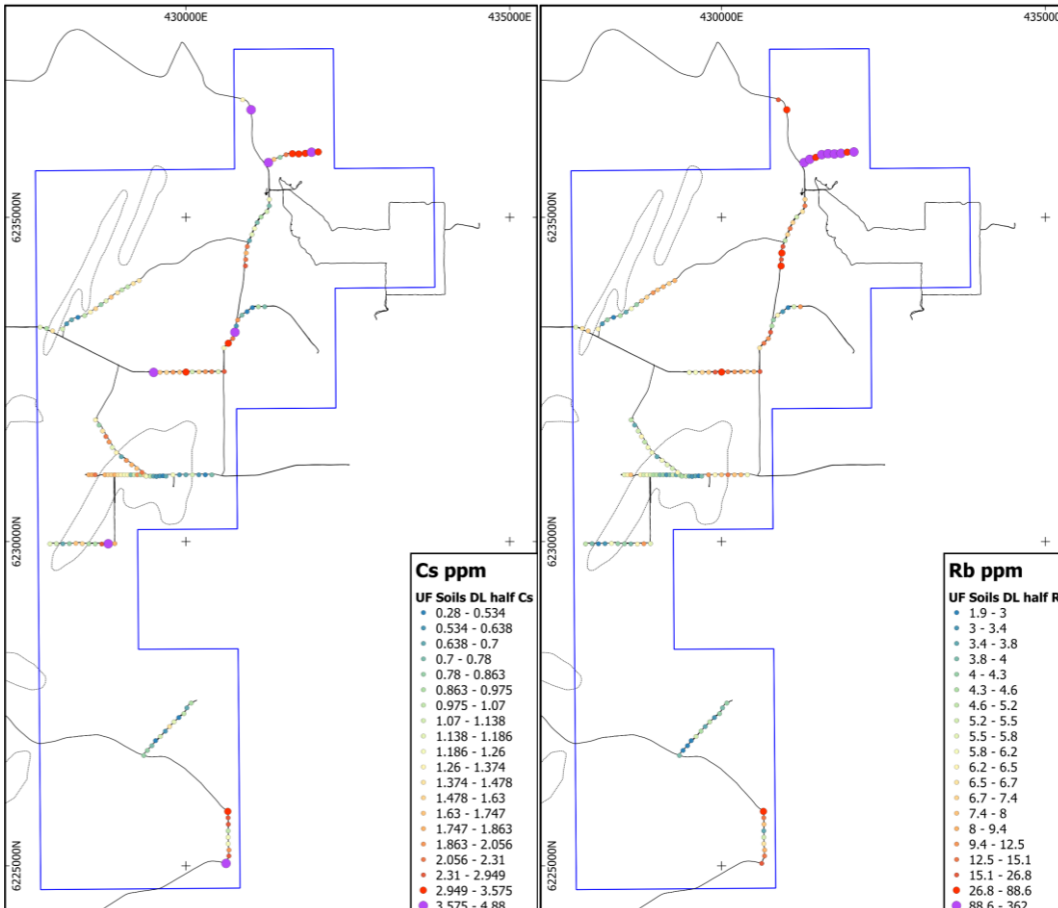
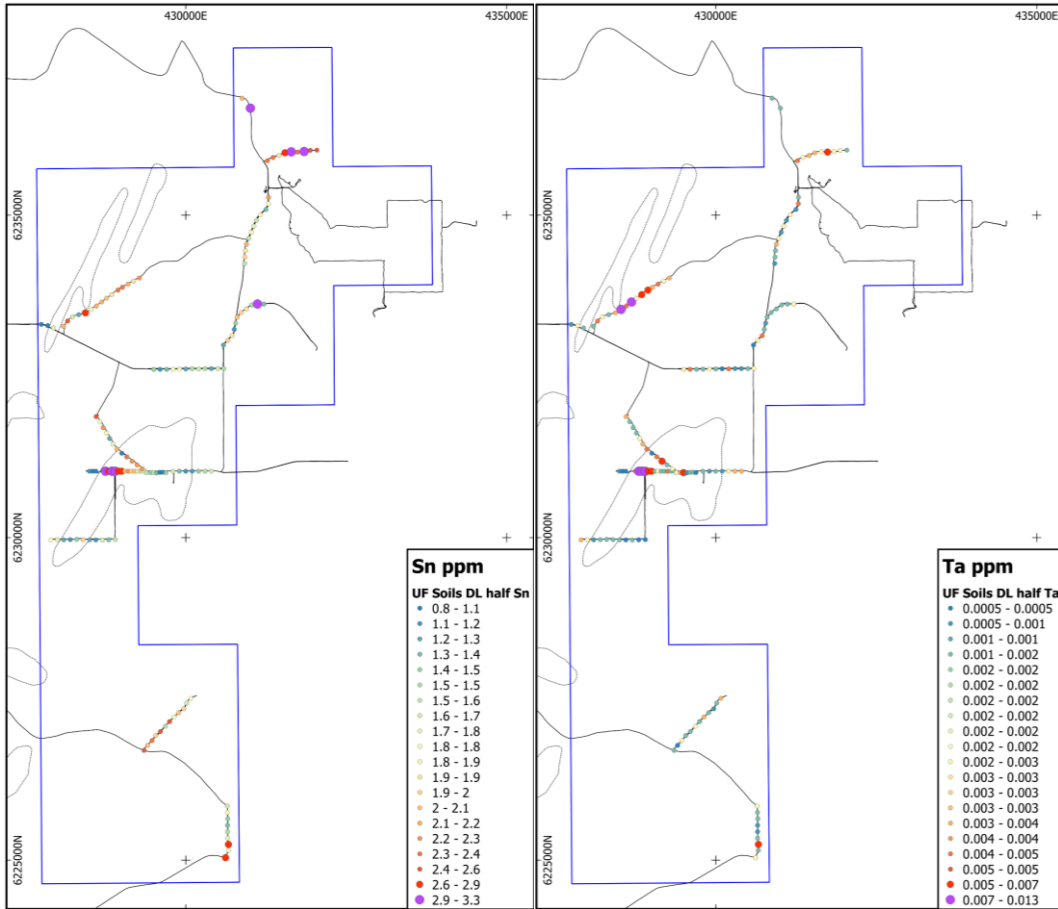
- WAMEX A98223**: Bridgetown E70/2855, Final Report, June 2013, Amerod Holdings Pty Ltd.
- WAMEX A79877**: Bridgetown Combined Annual Report C37/2009, Bridgetown Manjimup, September 07- September 08, Amerod Holdings Pty Ltd.
- WAMEX A18173**: CHADWICK, R. C., 1986, Yornup prospect, Annual Exploration Report, 1986: West Coast Holdings Limited: Western Australia Geological Survey,
- WAMEX A29958**, Cameron, G.H, 1990, Exploration Potential of the Bridgetown/Yornup Donnelly River Area
- HASSAN, L. Y., 1998**, Mineral occurrences and exploration potential of southwest Western Australia: Western Australia Geological Survey, Report 65, 38p
- WAMEX A58087**, P. Harrison, 1999, Manjimup Project Annual Report Period Ending 31/03/1999 E70/1621, 1622, 1679 - Reference C49/1997, M10345; WA exploration services Pty Ltd.



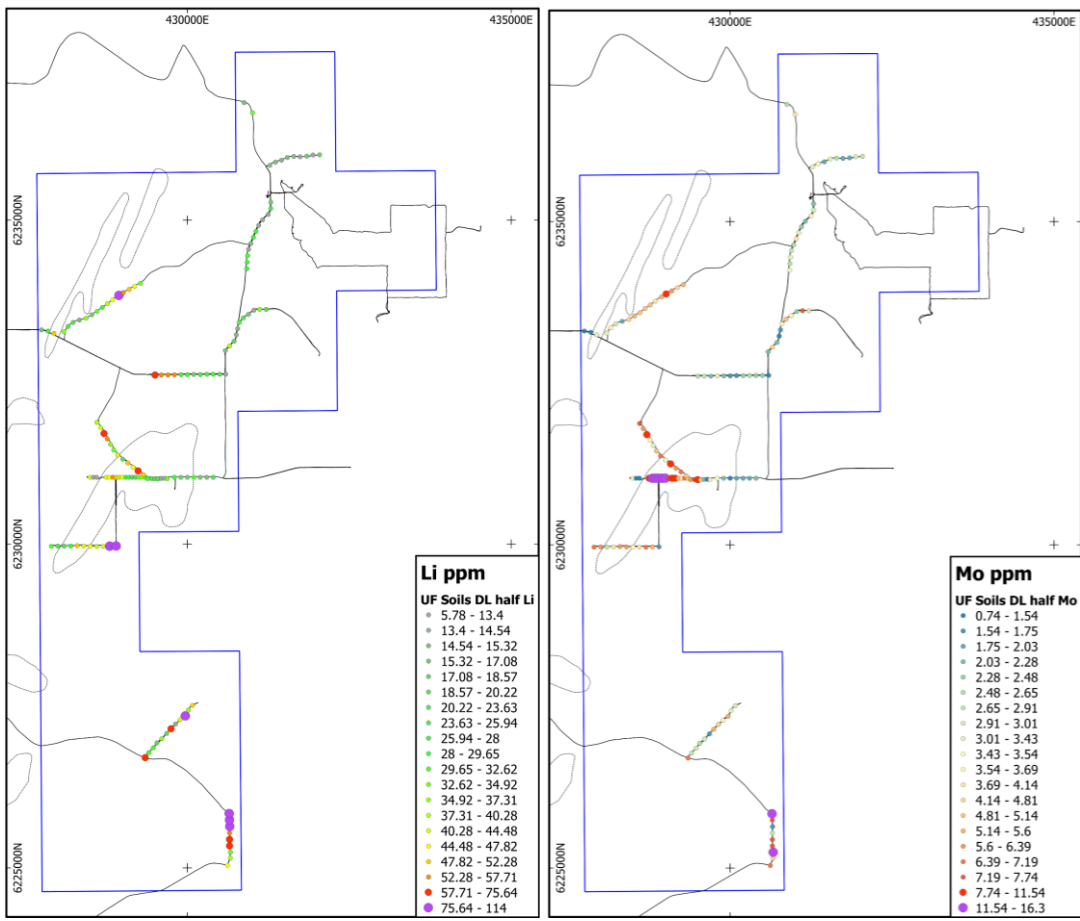
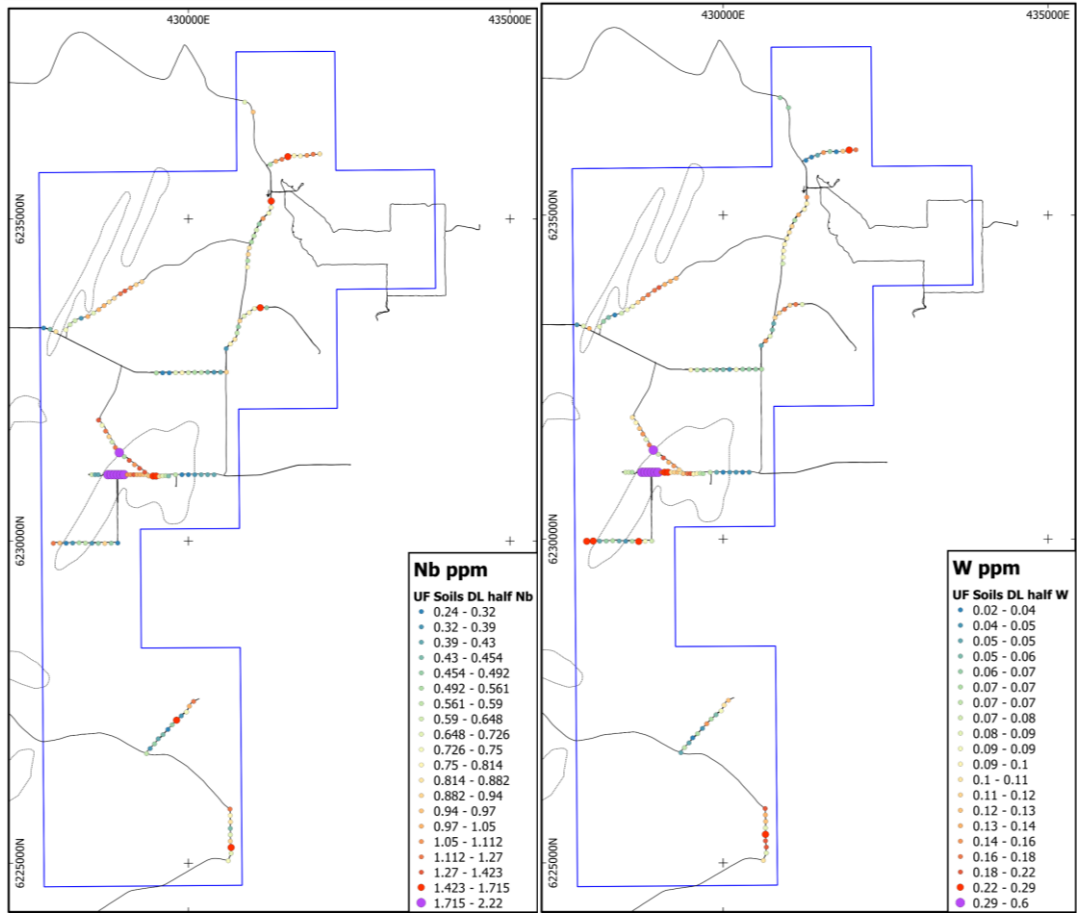


SUMMARY PLOTS OF UF SOIL SAMPLE ASSAY DATA

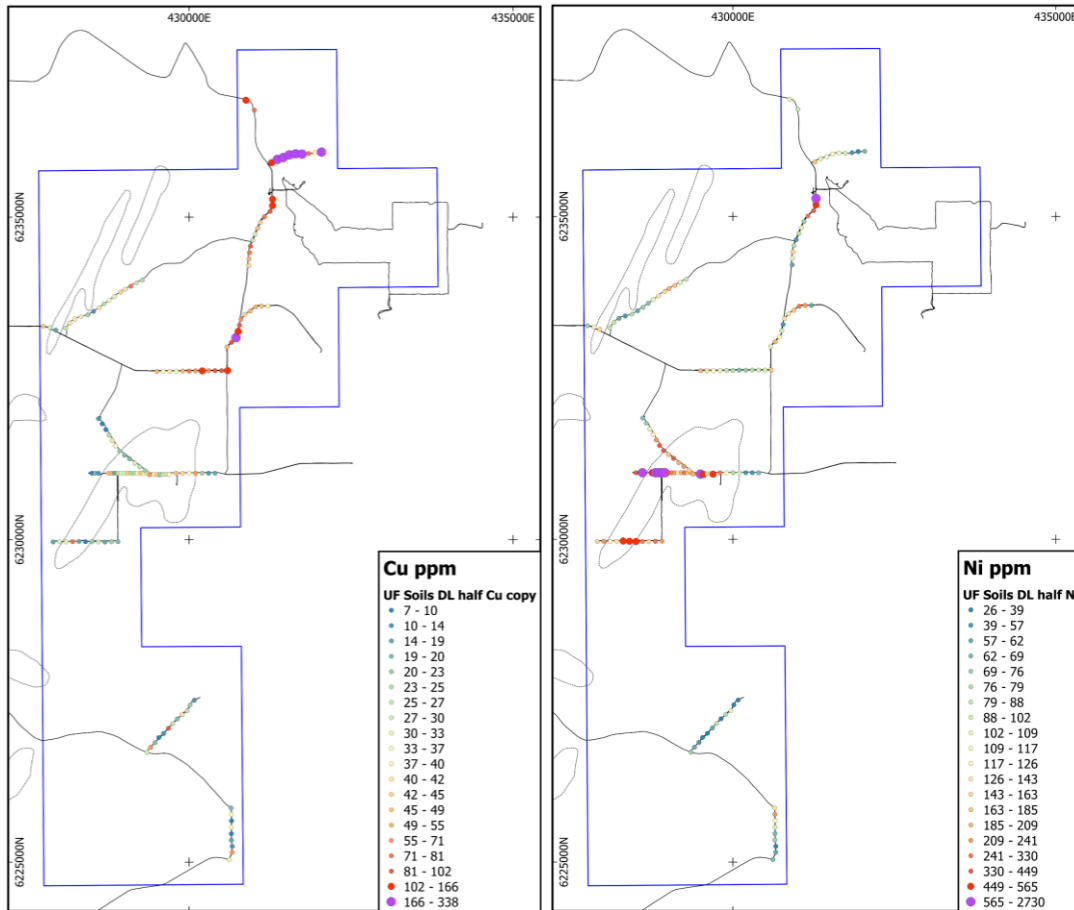
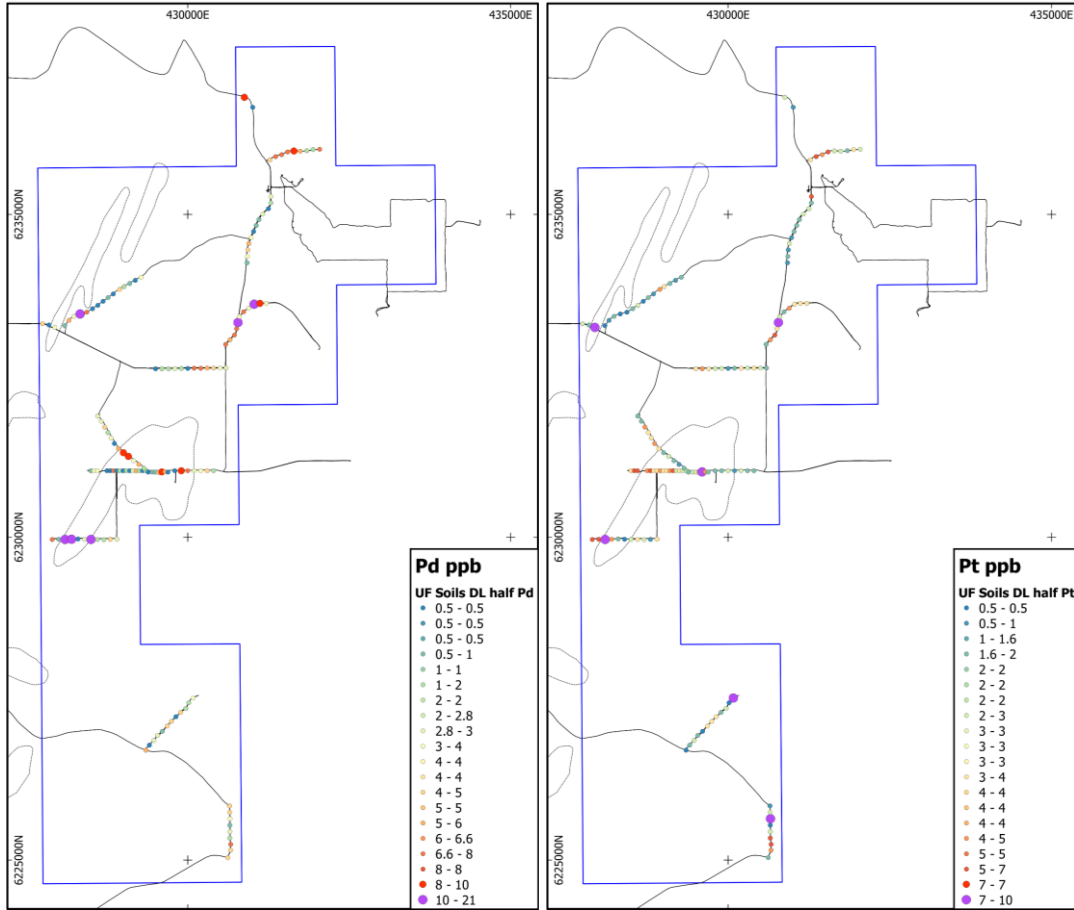
Rare metal – pegmatite suite of elements



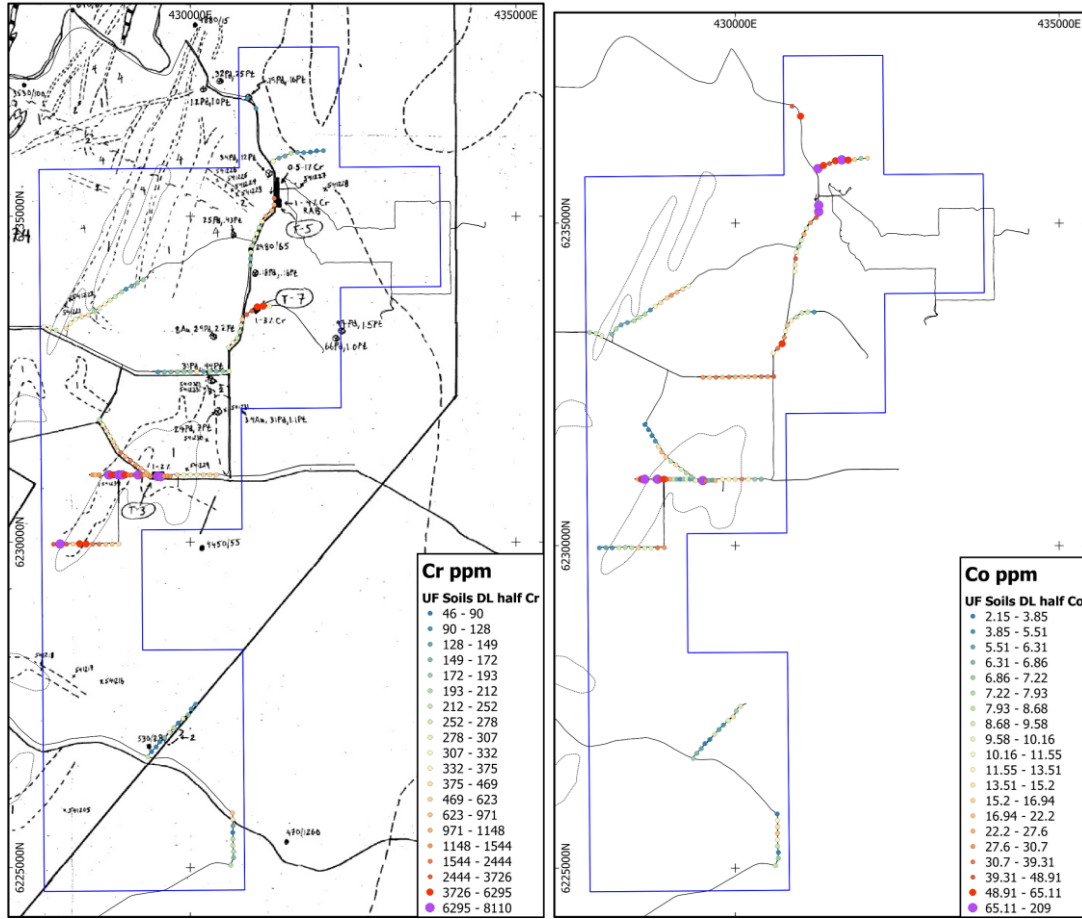
Rare metal – pegmatite suite of elements (contd.)



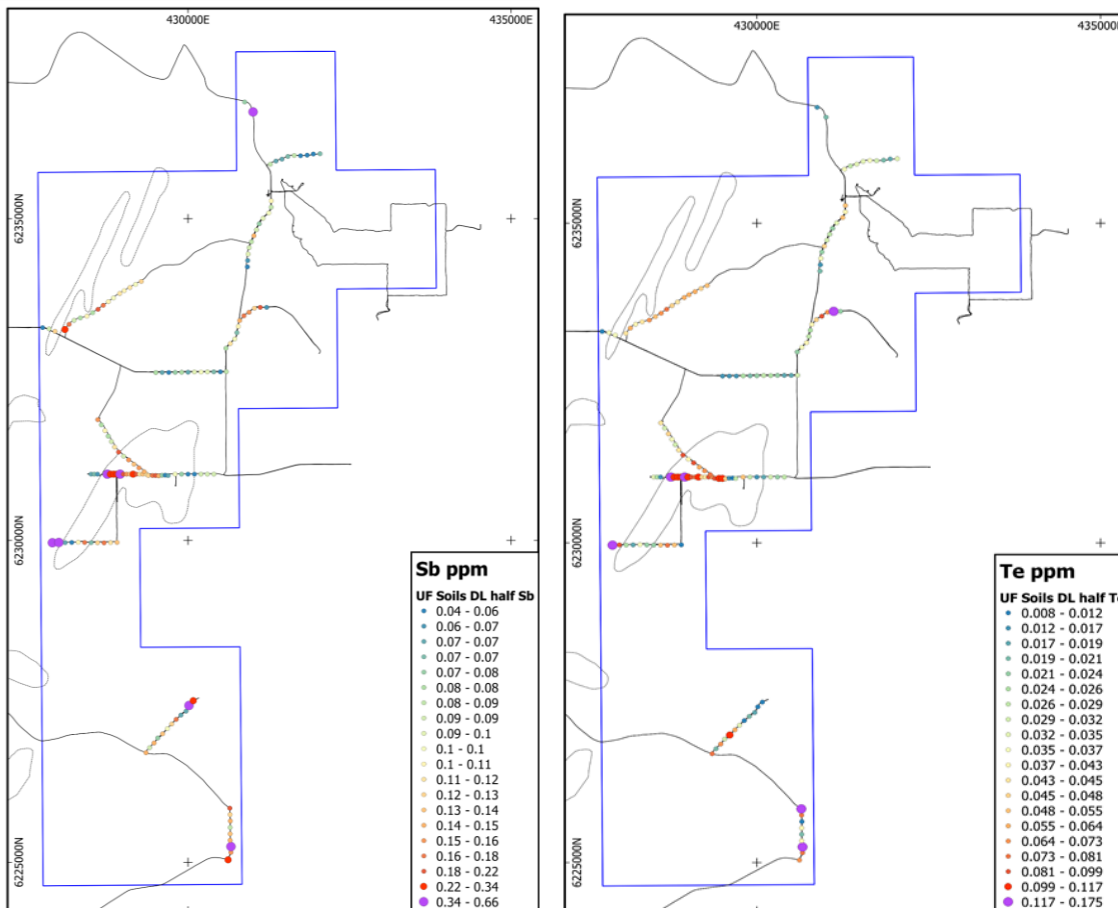
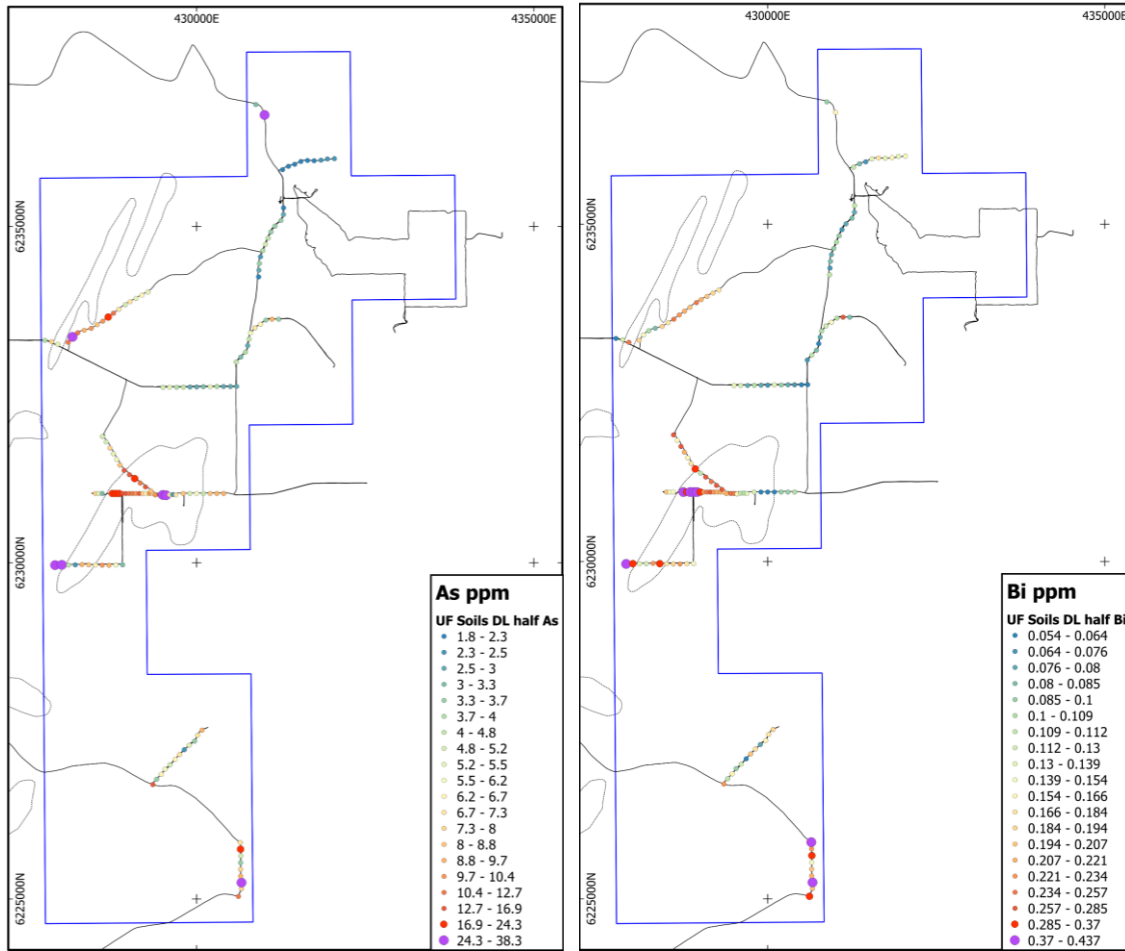
Ni-Cu-PGE suite of elements



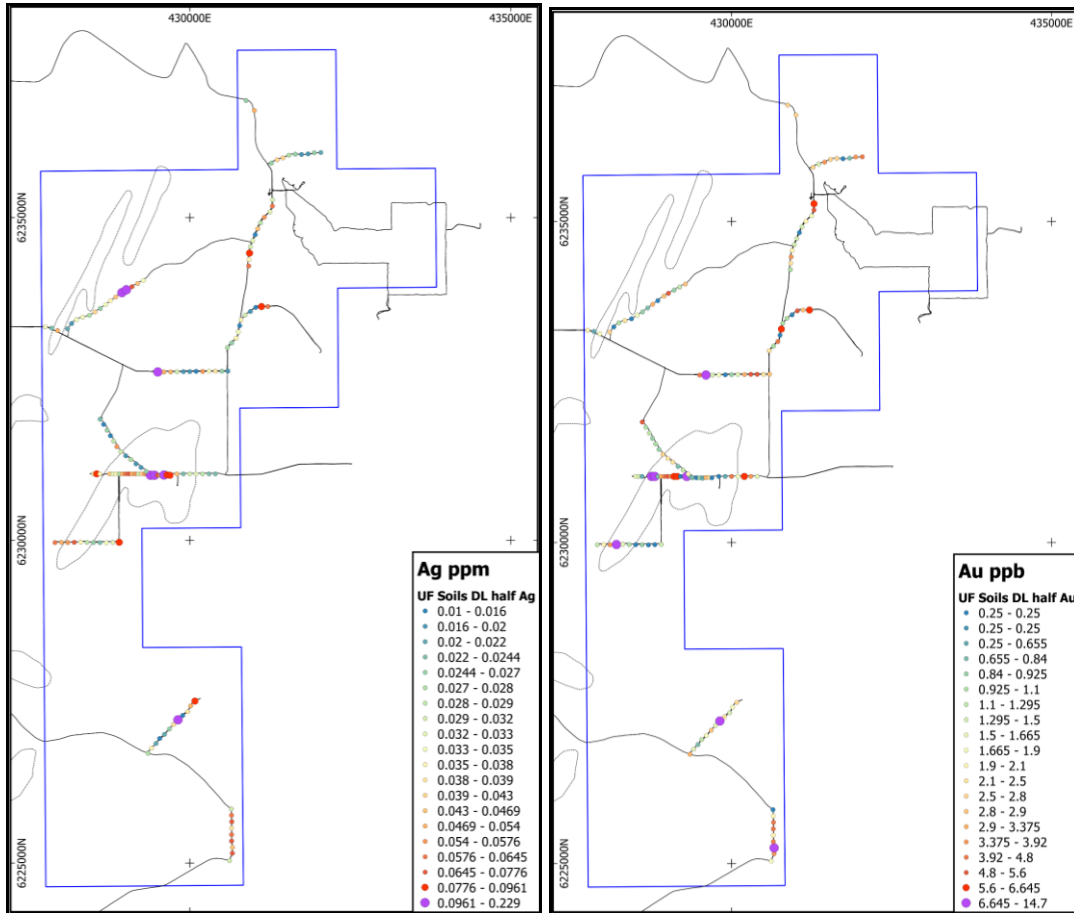
Ni-Cu-PGE suite of elements (contd.)



Chalcophile element concentrations



Chalcophile element concentrations (contd.)



Data description as required by the 2012 JORC Code - Section 1 and Section 2 of Table 1**Soil Sampling – Yornup Project**

Section 1 Sampling techniques and data		
Criteria	JORC Code explanation	Comments
Sampling technique	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 XRF instruments, etc.). These examples should not be taken as limiting the broad meaning of sampling.	E70/5405 – 141 soil samples collected (138 analysed) from existing tracks. Reconnaissance traverses, no grid spacing .250g were submitted to Labwest Minerals Analysis Pty Ltd, Perth, for UFF-PE analysis of 50 elements by ICP following a microwave aqua regia digest. The extraction of the ultrafine (<2 µm) fraction was done by Labwest as part of the sample preparation. The remaining sample was dried and transferred into calico bags.
	Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used	The samples were located using handheld GPS units with an approximate accuracy of +/- 5 m.
	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 1m samples from which 3kg was pulverised to produce a 30g 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 (eg submarine nodules) may warrant disclosure of detailed information.	The samples (~250g) were sent to Perth laboratory Labwest for multi-element analysis.
Drilling technique	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 done.
Drill Sample recovery	Method of recording and assessing core and chip sample recoveries and results assessed	Not applicable = N/A
	Measurements taken to maximise sample recovery and ensure representative nature of the samples.	N/A
	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.	N/A

Logging	Whether core and chip samples have been geologically and geotechnically logged to a level of detail to support appropriate Mineral Resource estimation, mining and metallurgical studies.	N/A
	Whether logging is qualitative or quantitative in nature. Core (or costean, channel etc.) photography.	N/A
	The total length and percentage of the relevant intersections logged	N/A
Sub-sampling techniques and sample preparation	If core, whether cut or sawn and whether quarter, half or all core taken.	N/A
	If non-core, whether riffles, tube sampled, rotary split, etc. and whether sampled wet or dry.	N/A
	For all sample types, quality and appropriateness of the sample preparation technique.	N/A
	Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples.	N/A
	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.	No field duplicate samples were taken.
	Whether sample sizes are appropriate to the grain size of the material being sampled.	Considered appropriate for the purpose which is reconnaissance only.
Quality of assay data and laboratory tests	The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total.	Quality control procedures for the soil analyses include the insertion of laboratory in-house controls, blanks and duplicates.
	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.	N/A.
	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.	Blanks and duplicates to be inserted by the laboratory.
Verification of sampling and assaying	The verification of significant intersections by either independent or alternative company personnel.	No verification of sampling

	The use of twinned holes	N/A
	Documentation of primary data, data entry procedures, data verification, data storage (physically and electronic) protocols.	N/A
	Discuss any adjustment to assay data.	N/A
Location of data points	Accuracy and quality of surveys used to locate drill holes (collar and down-hole surveys), trenches, mine workings and other locations used in Mineral Resources estimation.	N/A
	Specification of the grid system used.	The locations are measured in UTM grid GDA94, Zones 50 and 51
	Quality and adequacy of topographic control.	N/A
Data spacing and distribution	Data spacing for reporting of Exploration Results.	Reconnaissance traverses, no set spacing – see included figures.
	Whether the data spacing and distribution is sufficient to establish the degree of geological and grade continuity appropriate for the Mineral Reserve and Ore Reserve estimation procedure(s) and classifications applied.	N/A.
	Whether sample compositing has been applied.	N/A
Orientation of data in relation to geological structure	Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type.	N/A
	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.	N/A
Sample security	The measures taken to ensure sample security.	N/A
Audits or reviews	The results of and audits or reviews of sampling techniques and data.	No audits or reviews of sampling techniques and data have been conducted to date.
Section 2 Reporting of exploration results		
Mineral tenements and land tenure status	Type, reference name/number, location and ownership including agreements or material issues with third parties such as joint ventures, partnerships, overriding royalties, native title interest, historical sites, wilderness or national park and environmental settings.	Yornup , E70/5405 – Cullen Exploration Pty Ltd. 100%, Much of the area is private property and permission from the respective landowners is required prior to entry.
	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.	The tenure is secure and in good standing at the time of writing.
Exploration done by other parties	Acknowledgement and appraisal of exploration by other parties.	There has been historical exploration in the project area – key references listed.

Geology	Deposit type, geological settings and style of mineralisation.	N/A
Drill hole information	A summary of all information material for the understanding of the exploration results including a tabulation of the following information for all Material drill holes:	N/A
	· <i>Easting and northing of the drill hole collar</i>	N/A
	· <i>Elevation or RL (Reduced level-elevation above sea level in metres) and the drill hole collar</i>	N/A
	· <i>Dip and azimuth of the hole</i>	N/A
	· <i>Down hole length and interception depth</i>	N/A
	· <i>Hole length</i>	N/A
	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.	N/A
Data aggregation methods	In reporting Exploration results, weighing 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	N/A
	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.	N/A
	The assumptions used for any reporting of metal equivalent values should be clearly stated.	N/A
Relationship between mineralisation widths and intercept lengths	These relationships are particularly important in the reporting of Exploration Results.	N/A
	If the geometry of the mineralisation with respect to the drill hole angle is known, its nature should be reported.	N/A
	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’)	N/A

Diagrams	Appropriate maps and sections (with scales) and tabulations of intercepts would 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.	See included figures.
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.	N/A
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 containing substances.	N/A – reported previously and/or referenced.
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).	Further work is planned – likely to include follow-up sampling and possible ground EM or magnetic surveying.
	Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, providing this information is not commercially sensitive.	See included figures.

**Authorised for release to the ASX by: Chris Ringrose, Managing Director,
Cullen Resources Limited**

ATTRIBUTION: Competent Person Statement

The information in this report that relates to exploration activities is based on information compiled by Dr. Chris Ringrose, Managing Director, Cullen Resources Limited who is a Member of the Australasian Institute of Mining and Metallurgy. Dr. Ringrose is a full-time employee of Cullen Resources Limited. He has sufficient experience which is relevant to the style of mineralisation and types of deposits under consideration, and to the activity which has been undertaken, 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”. Dr. Ringrose consents to the report being issued in the form and context in which it appears. Information in this report may also reflect past exploration results, and Cullen’s assessment of exploration completed by past explorers, which has not been updated to comply with the JORC 2012 Code. The Company confirms it is not aware of any new information or data which materially affects the information included in this announcement.

FORWARD - LOOKING STATEMENTS

This document may contain certain forward-looking statements which have not been based solely on historical facts but rather on Cullen's expectations about future events and on a number of assumptions which are subject to significant risks, uncertainties and contingencies many of which are outside the control of Cullen and its directors, officers and advisers. Forward-looking statements include, but are not necessarily limited to, statements concerning Cullen’s planned exploration program, strategies and objectives of management, anticipated dates and expected costs or outputs. When used in this document, words such as “could”, “plan”, “estimate” “expect”, “intend”, “may”, “potential”, “should” and similar expressions are forward-looking statements. Due care and attention has been taken in the preparation of this document and although Cullen believes that its expectations reflected in any forward looking statements made in this document are reasonable, no assurance can be given that actual results will be consistent with these forward-looking statements. This document should not be relied upon as providing any recommendation or forecast by Cullen or its directors, officers or advisers. To the fullest extent permitted by law, no liability, however arising, will be accepted by Cullen or its directors, officers or advisers, as a result of any reliance upon any forward looking statement contained in this document.

ABOUT CULLEN: Cullen is a Perth-based minerals explorer with a multi-commodity portfolio including projects managed through a number of JVs with key partners (Rox, Fortescue, Lachlan Star and Capella), and a number of projects in its own right. The Company’s strategy is to identify and build targets based on data compilation, field reconnaissance and early-stage exploration, and to pursue further testing of targets itself or farm-out opportunities to larger companies. Projects are sought for most commodities mainly in Australia but with selected consideration of overseas opportunities. Cullen has a **1.5% F.O.B. royalty** up to 15 Mt of iron ore production from the Wyloo project tenements, part of Fortescue’s Western Hub/Eliwana project, and will receive \$900,000 cash if and when a decision is made to commence mining on a commercial basis – from former tenure including E47/1649, 1650, ML 47/1488-1490, and ML 08/502. Cullen has a **1% F.O.B. royalty** on any iron ore production from the following former Mt Stuart Iron Ore Joint Venture (Baosteel/MinRes/Posco/AMCI) tenements – E08/1135, E08/1330, E08/1341, E08/1292, ML08/481, and ML08/482 (and will receive \$1M cash upon any Final Investment Decision). The Catho Well Channel Iron Deposit (CID) has a published in situ Mineral Resources estimate of 161Mt @ 54.40% Fe (ML 08/481) as announced by Cullen to the ASX – 10 March 2015.