



## Exploration Update, Mt Eureka Project

### SUMMARY

- Drilling to resume around mid-June 2014, to complete the suspended programme
- Four new high-priority targets for nickel sulphides to be tested: two identified from ground EM survey data (eastern ultramafics) ; and two from previous VTEM and ground EM data (western ultramafics) – (see CUL : ASX , 23 May, 2014)
- Results received for drilling completed prior to suspension of programme (MERC123-125) and final 1-m splits of drilling completed in March 2014
- **1m @ 653 ppm Cu and 4100ppm Ni** from 43m depth in Hole MERC121 (Doyles) may indicate the presence of primary nickel sulphides.

#### Doyles Prospect

Analyses of remaining one-metre split samples from RC drilling completed in March this year include a result of 653 ppm Cu and 4100ppm Ni from 43-44m depth in Hole MERC121. Cullen considers this result may indicate the presence of primary nickel sulphide mineralisation which is oxidised at this depth. Further drilling at Doyles in the mid-June drilling programme will test this zone within fresh rock.

Recent drilling at the Doyles “C3” conductor (hole MERC125) followed up an interval of 3m @ 0.36% Ni with 44ppb Pt+Pd from 52m in weathered ultramafic in hole MERC118. No significant results were received for MERC 125 and no further work is planned here; the enrichment in Ni and PGE in hole MERC118 is attributed to weathering effects.

#### Silverbark North Prospect

The most recent drilling (holes MERC 123 and 124) tested a weak, interpreted conductor trend, coincident with an ultramafic unit (see Figure). This trend was identified by a review of VTEM and ground EM data where the presence of second and third order conductor responses may have been overlooked. Drilling intersected two ultramafic units in hole MERC124 (drilled at an oblique angle to intersect the targeted ultramafic unit beneath the weathering zone), but neither hole, MERC123 and 124, showed significant Ni results. Downhole EM surveying is planned to search for any off-hole conductors.

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Table 1: Updated drill hole data - Doyles and Silverbark North prospects

Hole	Prospect	Easting (m)	Northing (m)	EOH depth (m)	Dip (degrees)	Azimuth (degrees)	From (m)	To (m)	Thickness (m)	<sup>1</sup> Ni (%)	<sup>2</sup> Ni (%)	<sup>1</sup> Cu (ppm)	<sup>2</sup> Cu (ppm)	<sup>3</sup> Pt+Pd (ppb)
MERC107	Silverbark North	355101	7038953	268	-60	270				NSR				
MERC116	Doyles - Conductor C1	358148	7059540	198	-60	270				NSR				
MERC117	Doyles - Conductor C2	358402	7060726	224	-65	350				NSR				
MERC118	Doyles - Conductor C3	358358	7061502	204	-60	270	52	65	13		0.36		43	
Including							60	63	3		0.43		28	
MERC119	Doyles - RAB anomaly Central	358490	7061892	83	-60	270	50	55	5		0.39		14	
Including							51	52	1		0.45		12	
MERC120	Doyles - RAB anomaly Central	358511	7061892	88	-60	270	50	60	10	0.25		33		11
							75	80	5		NSR			
MERC121	Doyles - RAB anomaly North	358627	7062297	58	-60	270	20	50	30		0.39		79	
Including							28	30	2		1.25		68	10
and														
Including							43	44	1		0.41		653	7.5
MERC122	Doyles - RAB anomaly North	358650	7062297	93	-70	270	50	55	5		0.24		15	
MERC123	Silverbark North	354411	7038993	124	-60	270				NSR				
MERC124	Silverbark North	354451	7039015	249	-60	210				NSR				
MERC125	Doyles - Conductor C3	358383	7061502	119	-90	0				NSR				

Notes referring to Table 1:

Easting & Northing in MGA94, Zone51

<sup>1</sup> Ni (%) and Cu (ppm) for 5m composite samples by ICP-OES from aqua regia digest (partial). Lower cut-off grade of 0.15% Ni with up to 5m of internal dilution; no upper cut-off applied

<sup>2</sup> Ni (%) and Cu (ppm) for 1-m splits by ICP-OES from acid digest (near total). Lower cut-off grade of 0.25% Ni with up to 2m of internal dilution; no upper cut-off applied

<sup>3</sup> Pt+Pd (ppb) by ICP-MS from aqua regia digest (partial), lower detection limits of 5 ppb. Results of less than the detection limit are calculated as 1/2 detection limit, ie, 2.5ppb; 1/2 detection limit value is used for averaging; Pt and Pd only analyzed for select samples

NSR - No significant results (Ni less than 0.15% in 5-m composite sample)

Average value calculated as the arithmetic average rounded up or down

### New targets (as described 23 May 2014, ASX announcement), for next (mid-June) drilling programme (see Figures)

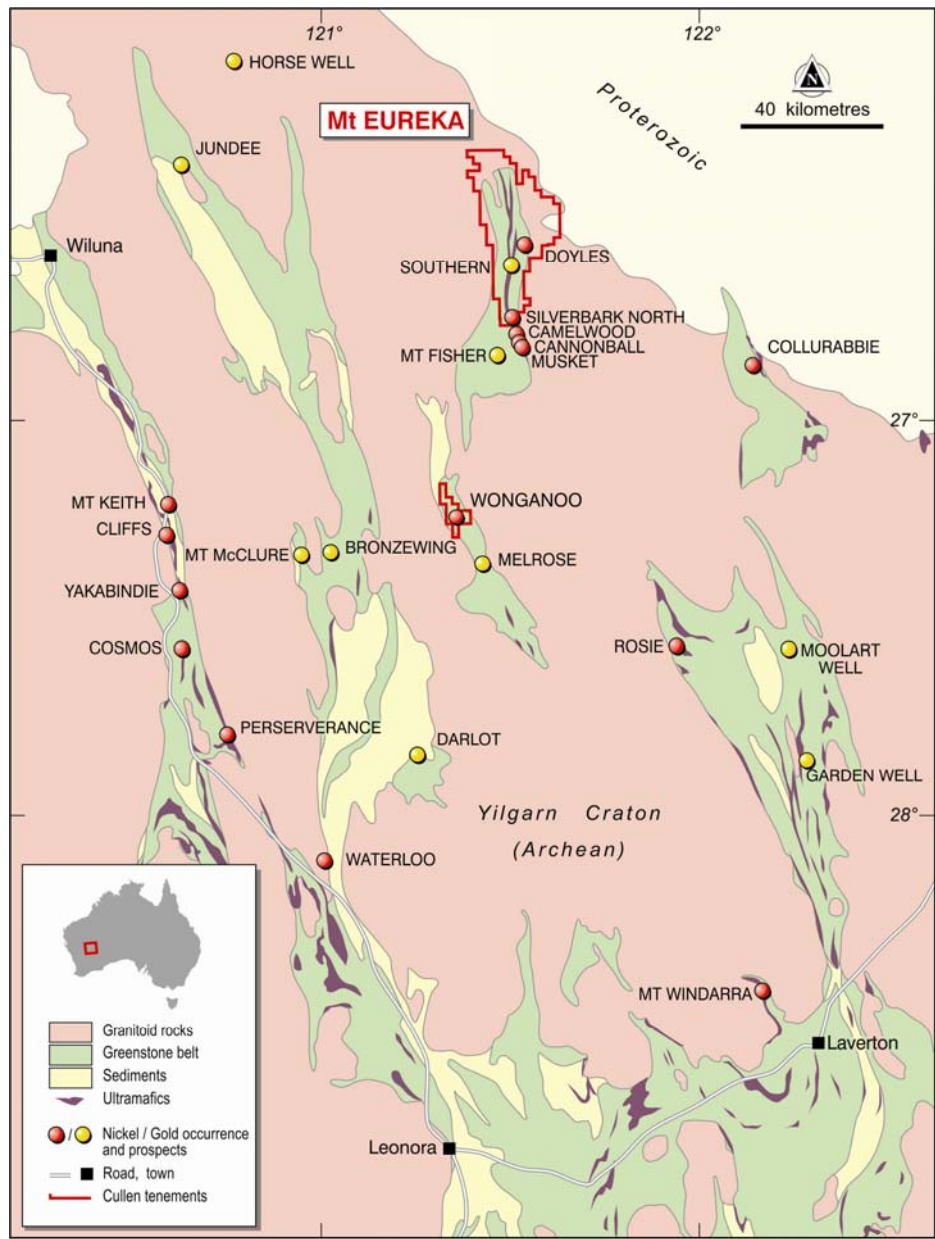
1. Eastern Ultramafics (E53/1209) – strong, new ground EM conductor identified
2. Eastern Ultramafics (E53/1637) – new ground EM conductor interpreted
3. Western Ultramafics – south (E53/1209 and E53/1637) – re-modelled conductor trend
4. Western Ultramafics – north (E53/1209) discrete, 1<sup>st</sup> order VTEM anomaly

**“AK47” Prospect**

In addition to the above targets, Cullen has commenced a review of all geological and geophysical data available for the **“AK47” nickel prospect** where drilling in 2002-2003 by WMC, a previous joint venture partner, intersected 0.2m of massive sulphide with 1.93% Ni, with 0.42% Cu and 0.7g/t Pt+Pd.

**Wonganoo Prospect**

Four lines of ground EM surveying at the **Wonganoo Prospect (E53/1611** - see figure below) returned several strong conductors across the targeted komatiite horizon with interpretation of the data in progress.

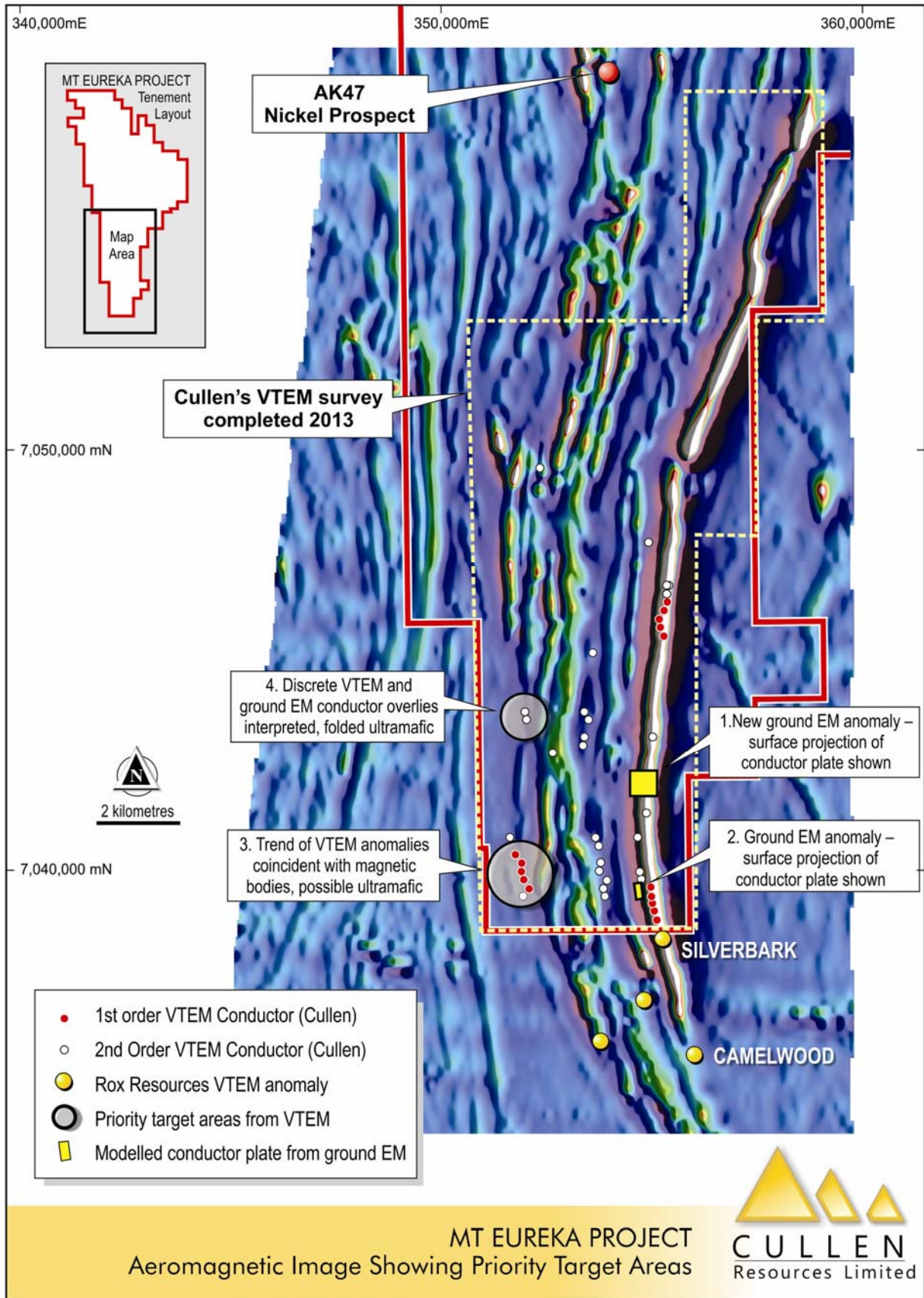


Mt EUREKA PROJECT - Location Plan

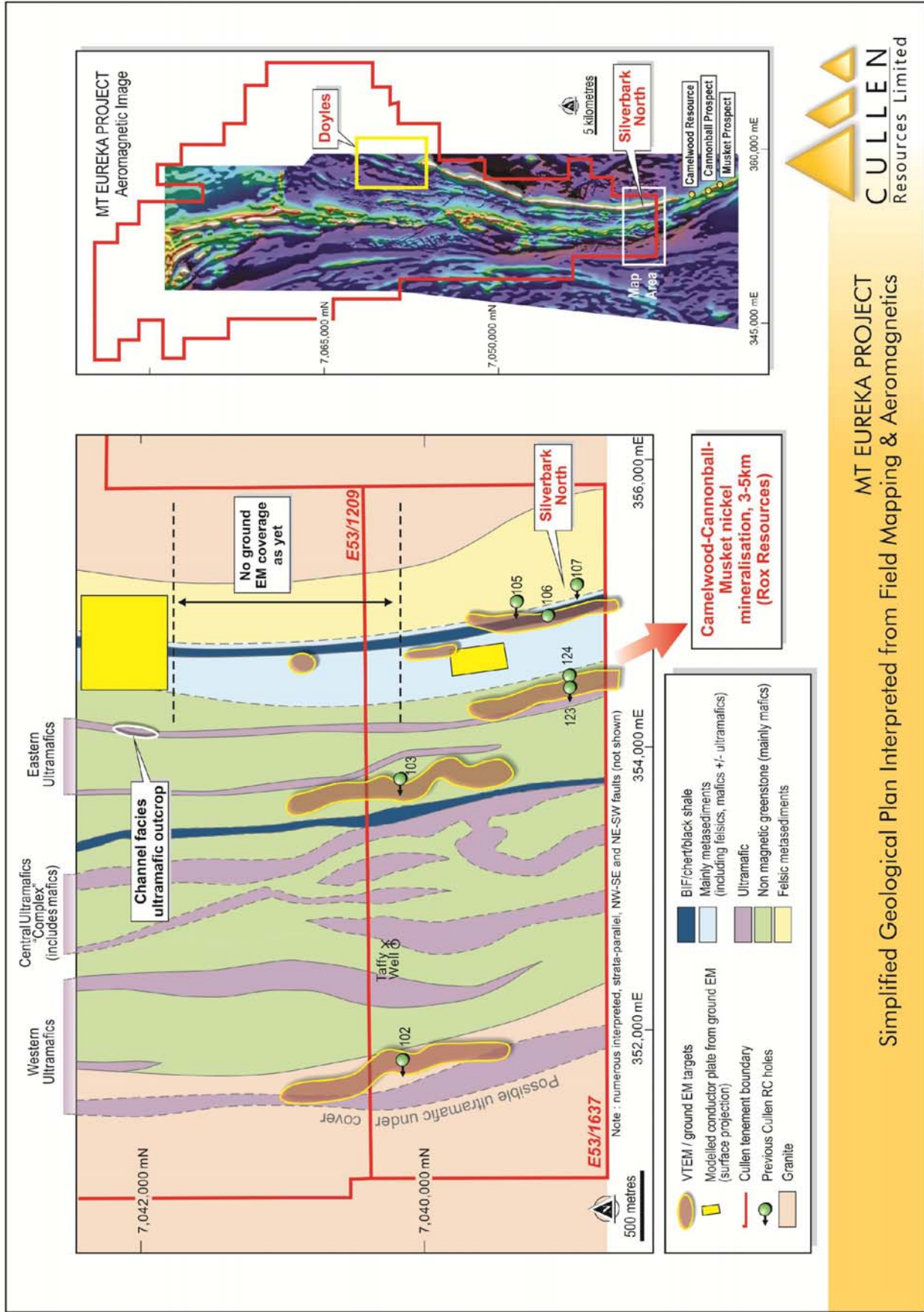
\* **Mt Eureka Project** – ELs 53/1299, 1300, 1209, 1630,1635,1637,1611 - Cullen 100%

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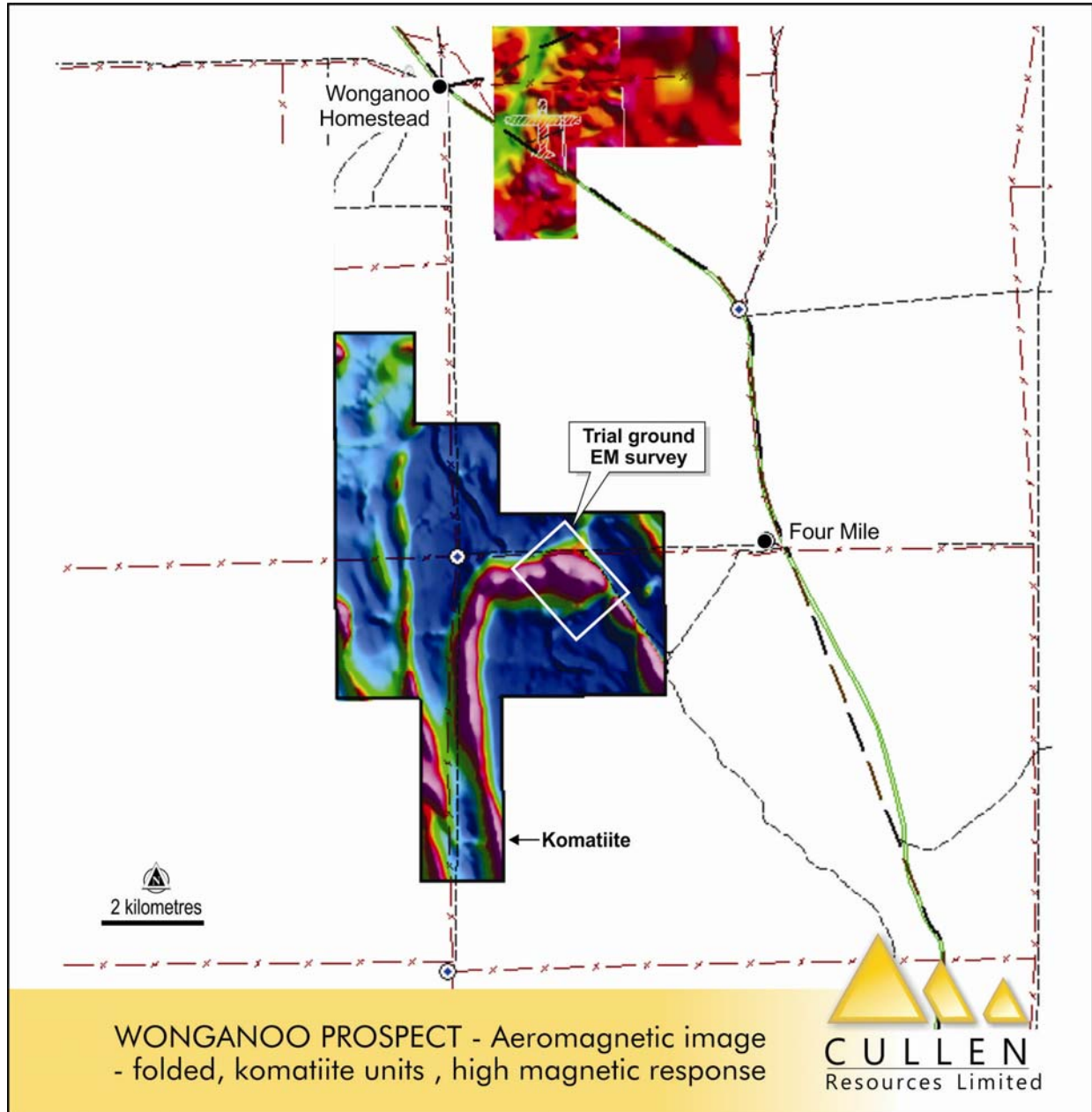


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MT EUREKA PROJECT  
 Simplified Geological Plan Interpreted from Field Mapping & Aeromagnetics





The information in this report that relates to Exploration Results for the Mt Eureka project includes reference to Cullen's ASX announcement of 23 May 2014. Information in this report may also reflect past exploration results, and Cullen's assessment of exploration completed by past explorers. The Company confirms it is not aware of any new information or data which materially affects the information included in this announcement.

**ATTRIBUTION:** Competent Person Statement

*The information in this report that relates to exploration activities and results 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.*

**JORC Code, 2012 Edition – Table 1**

<b>Section 1 Sampling techniques and data</b>		
<b>Criteria</b>	<b>JORC Code explanation</b>	<b>Comments re RC drilling programme</b>
Sampling technique	Nature and quality of sampling (eg 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.	The Silverbark North and Doyle's nickel targets were sampled using reverse circulation (RC) drill holes testing a weak bedrock conductor (Silverbark North) and the potential down-dip extension of a previously reported drill intercept in hole MERC118 that tested the conductor C3. Three RC holes were drilled for 492m before the drilling programme was suspended due to inclement weather.
	Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used	The collar positions were located using a handheld GPS with an approximate accuracy of $\pm 3\text{m}$ ; downhole surveys were completed but where the hole intersected magnetic stratigraphy (BIF or serpentinite), the azimuth is unreliable.
	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 (eg 'reverse circulation drilling was used to obtain 1m samples from which 3kg was pulverised to produce a 30g charge for fire assa'). 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.	RC drilling was used to obtain one metre samples from which a 3-4kg sub-sample was taken using a cone splitter. The sub-sample together with the remainder of the 1-m sample was placed on the ground. From each drill spoil pile, a c. 400g sample was then collected using a scoop; five of such 1-m samples were combined into one composite sample. The composite samples (2-3kg) were sent to an accredited Perth laboratory for analysis. In MERC125, only the interval from 55m to 85m was sampled.
Drilling technique	Drill type (eg core, reverse circulation, open-hole hammer, rotary air blast, auger, Bangka, sonic etc) and details (eg 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).	Drilling was by reverse circulation using a 140mm diameter face-sampling hammer bit.
Drill Sample recovery	Method of recording and assessing core and chip sample recoveries and results assessed	Sample recovery was assessed visually and the recovery recorded. The samples were generally dry or damp, and showed little (<10%) variation in volume.
	Measurements taken to maximise sample recovery and ensure representative nature of the samples.	The samples were visually checked for recovery, contamination and water content; the results were recorded on spreadsheets. Cyclone, splitter and buckets were cleaned regularly and thoroughly (between rod changes and after completion of each drill hole) to avoid cross contamination.
	Whether a relationship exists between sample recovery and grade and wether sample bias may have occurred due to preferential loss/gain of fine/coarse material.	The holes were kept dry and within the targeted zones, there was no significant loss/gain of material introducing a sample bias.

Logging	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.	All samples were logged by a geologist in order to provide a geological framework for the interpretation of the analytical data.
	Whether logging is qualitative or quantitative in nature. Core (or costean, channel etc) photography.	Logging of rock chips was qualitative (lithology, type of mineralization) and semi-quantitative (visual estimation of sulphide content, quartz veining, alteration etc.).
	The total length and percentage of the relevant intersections logged	All drill holes were logged in full.
Sub-sampling techniques and sample preparation	If core, whether cut or sawn and whether quarter, half or all core taken.	Not applicable - no core taken
	If non-core, whether riffles, tube sampled, rotary split, etc and whether sampled wet or dry.	One-metre samples were split dry using a cone splitter attached to the drill rig. Composite samples were taken using a sampling scoop.
	For all sample types, quality and appropriateness of the sample preparation technique.	All samples were pulverised utilising Essa LM1, LM2 or LM5 grinding mills determined by the size of the sample. Dry crushed or fine samples will be pulverized to produce a homogenous representative sub-sample for analysis. A grind quality target of 85% passing 75µm will be established and is relative to sample size, type and hardness. However the nature (hardness) of some samples is such that this may not always be achievable using standard preparation protocols. In this case an additional 2nd stage grinding will be applied where a sub split is taken and further ground to ensure the assay pulp passes QC. In extreme cases, 85% passing 75 micron may not be achievable and thus cannot be guaranteed for all samples. Low chrome steel bowls are used for pulverising which could impart trace levels of contaminantes such as Cr, Fe and Mo.
	Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples.	Duplicates, certified reference materials and blanks will be inserted by the laboratory and reported in the final assay report.
	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.	For quality control of the field sampling, duplicate samples of the 5-m composites were taken at the rate of 1 per 20.
	Whether sample sizes are appropriate to the grain size of the material being sampled.	The sample size is considered appropriate for the purpose of this drilling programme, which is exploratory and primarily aimed at establishing the presence of mineralization.
	The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total.	For all 5-m composite samples, a 10g aliquot was digested using aqua regia. Analysis for Au, Pt and Pd was by ICP-MS; Cu, Ni and Zn were analyzed using ICP-OES. This digestion method is considered partial depending on the host of the elements analyzed, but will provide an acceptable level of accuracy for an initial assessment of the contained target elements. Nickel results greater than 0.15% in composite samples were followed up by analyzing the five one-metre split samples using a total or near-total multi-acid digest of a 40g aliquot followed by ICP-OES determination of Cu, Ni and Zn.



	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.	Not applicable
Quality of assay data and laboratory tests	Nature of quality control procedures adopted (eg standards, blanks, duplicates, external laboratory checks) and whether acceptable levels of accuracy (ie lack of bias) and precision have been established.	International standards, blanks and duplicates were inserted by the laboratory.
Verification of sampling and assaying	The verification of significant intersections by either independent or alternative company personnel.	The drilling was not inspected or verified by independent personnel, however, Cullen senior management have supervised the drilling and visually inspected the samples and sampling procedures.
	The use of twinned holes	No twinned holes drilled to date
	Documentation of primary data, data entry procedures, data verification, data storage (physically and electronic) protocols.	All primary geological data were recorded manually on log sheets and transferred into digital format and imported into Cullen's database.
	Discuss any adjustment to assay data.	No adjustments were made to assay data.
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.	All drill collar surveys were by handheld GPS. Several measurements (2-3) at different times were averaged; the estimated error is $\pm 3m$ .
	Specification of the grid system used.	The grid coordinates for the Silverbark North and Doyle's targets are in GDA94, Zone 51
	Quality and adequacy of topographic control.	There is currently no topographic control and the RL is assumed as 500m for all drill holes.
Data spacing and distribution	Data spacing for reporting of Exploration Results.	The drill holes tested two targets; the one at Doyles is located along a c. 3km long trend, the other target, Silverbark North, is located some 25km to the south.
	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.	The drilling was exploratory and not designed to satisfy requirements for Mineral Reserve estimations.
	Whether sample compositing has been applied.	The drill spoil generated by the RC drilling was composited into one metre intervals.
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.	The drilling is exploratory only and designed to test geophysical targets for the presence of nickel mineralisation at depth (holes MERC123 & 124). The geophysical target was intersected by a single drill hole only (MERC124) and it therefore has to be assumed that this drilling has not achieved unbiased testing of the entire target. The drill orientation was to the west (270 degrees) for MERC123, that of MERC124 was at 210 degrees (to the SW) to facilitate effective penetration of the targeted ultramafic unit; both holes were drilled at an angle of -60 degrees. MERC125, which targeted the conductor C3 was drilled vertically to test an anomalous (Ni and Pt+Pd) zone in MERC118, some 25m to the west.

	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.	The targeted ultramafic units dip to the east, however, the angle is variable. It is therefore likely that the drilled intersections overestimate the true thickness of any mineralization reported.
Sample security	The measures taken to ensure sample security.	All samples were handled, transported and delivered to the laboratory by Cullen staff or contractors. All samples were accounted for.
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.
<b>Section 2 Reporting of exploration results</b>		
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.	The drill targets are located on E53/1299 (Doyles Prospect) and E53/1637 (Silverbark North) which are both 100% owned by Cullen Resources Limited. Cullen has signed an agreement with Central Desert on behalf of the Wiluna traditional owners who have native title over the respective areas. All drill sites and access tracks were cleared by the traditional owners prior to commencement of ground-disturbing activities. There are no particular environmental settings.
	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 no previous drilling at Silverbark North by other parties than Cullen and only limited historic drilling at the Doyle's Prospect (Dominion Mining, 1994)
Geology	Deposit type, geological settings and style of mineralisation.	The targeted mineralisation is komatiite-hosted and/or associated Archean nickel sulphide as well as gold mineralization.
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:	
	· <i>Easting and northing of the drill hole collar</i>	See attached table
	· <i>Elevation or RL (Reduced level-elevation above sea level in metres) and the drill hole collar</i>	
	· <i>Dip and azimuth of the hole</i>	
	· <i>Down hole length and interception depth</i>	
	· <i>Hole length</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.	
Data aggregation methods	In reporting Exploration results, weighing averaging techniques, maximum and/or minimum grade truncations (eg cutting of high grades) and cut-off grades are usually material and should be stated.	See notes beneath table

	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.	See notes beneath table
	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.	Drilling was at 60-90 degree angles to test geophysical targets and to follow up on previous drill results. The mineralisation encountered in drilling is variably dipping to the east and the intercepts do not appear to represent the true width of mineralisation.
	If the geometry of the mineralisation with respect to the drill hole angle is known, its nature should be reported.	The exact geometry of the mineralisation is not known yet.
	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')	The reported mineralised intervals are down hole lengths only, and the true width of the mineralisation is not yet known.
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..	see attached table/plans
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.	See attached table
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.	There are currently no other exploration data that appear meaningful in the context of the reported results.
Further work	The nature and scale of planned further work (eg tests for lateral extensions or depth extensions or large-scale step-out drilling).	Further RC drilling of the geophysical and geological targets is planned in the near future.
	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 attached figures.