ABN 46 006 045 790

**ASX Symbol: CUL** 

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9 April 2015

# Two new bedrock conductors identified at AK47 nickel sulphide prospect, Mt Eureka Project

## **Highlights**

- Cullen Resources Limited ("Cullen" or the "Company") has completed a ground EM survey at its AK47 nickel sulphide prospect
- Preliminary interpretation has identified two new bedrock conductors both on interpreted trends of prospective ultramafic rocks (from aeromagnetic data and outcrop mapping)
- One new conductor is part of an interpreted ultramafic trend stretching for approximately 3km of strike, associated with several VTEM anomalies which have not been drill tested
- Interestingly, some of these VTEM anomalies lie within interpreted ultramafic rocks which appear to have a sub-strate of felsic rocks a similar stratigraphic setting to the nickel sulphide discoveries by Rox Resources at their Camelwood deposit
- Cullen's consultants (Southern Geoscience Consultants SGC) are now modelling the two new conductors to estimate the size, shape and orientation of the conductive bodies, and to design drill holes to test them
- SGC will also re-model the new EM data over the area of previous diamond drilling at AK47 (drill holes GDB2-7) to determine if the modelled conductor has been fully tested
- Cullen is very encouraged by these results and plans drill testing as soon as practical

## **Background**

Cullen Resources Limited (Cullen) holds 100% of ~450km² of approved tenure\* in the Mt Eureka Greenstone Belt in the North Eastern Goldfields of Western Australia (Fig. 1) which includes multiple targets for nickel sulphides and gold. The high nickel prospectivity of Cullen's ground is supported by the discovery of nickel sulphides by Rox Resources Limited (Rox) at Camelwood and Cannonball – Musket (Fisher East Project), located a few kilometres along strike to the south of Cullen's southern tenement boundary. Cullen is continuing nickel sulphide exploration on its extensive ground holding, which includes ~ 35km of strike of greenstone and numerous prospective ultramafic contacts, for analogies to the "Camelwood trend."

#### GROUND EM COMPLETED AT AK47 NICKEL PROSPECT

Cullen has completed a ground EM survey at its AK47 nickel sulphide prospect, to test along strike and down-dip of a known, ultramafic-associated, massive nickel sulphide occurrence discovered in 2003 by a Cullen – WMC Limited Joint Venture (drill hole GBD2 intersected 0.2m of massive sulphide with 1.93% Ni, with 0.42% Cu and 0.7g/t Pt+Pd) (Fig.2).

Preliminary interpretation of the new ground EM data has identified two new bedrock conductors, interpreted by Cullen to be spatially associated with ultramafics (Fig.3).

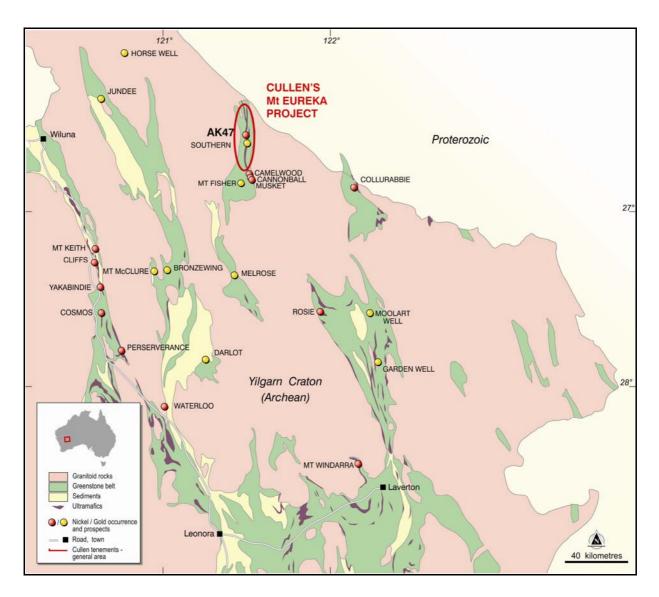
Cullen's consultants (Southern Geoscience Consultants - SGC) are now modelling the new ground EM anomalies to estimate the size, shape and orientation of the conductors, and to design drill holes to test them. SGC will also review the VTEM anomalies from the previous Cullen - BHP Billiton Joint Venture 2009 airborne EM survey in the target area north north east of AK47 (Fig.4) and model them if possible.

The new EM conductor on line 7058300 mN lies south east of the known nickel sulphide intersection in historic drilling, is coincident with a VTEM anomaly, is along strike from outcrops of ultramafic rock, and is part of a ~3km ultramafic trend interpreted from aeromagnetics associated with several undrilled VTEM anomalies detected by the 2009 airborne survey (Figs. 3 and 4).

In Cullen's opinion, these VTEM anomalies straddle a broad stratigraphic package and the two historic diamond holes completed along the trend (in 2006 based on ground EM surveying), have only tested part of the prospective stratigraphy. Further, these previous ground EM surveys have not effectively covered some of the VTEM anomalies detected in the 2009 survey, and further ground EM surveying is warranted. Interestingly, some of these VTEM anomalies lie within ultramafic rocks which appear to have a sub-strate of felsic rocks - a similar stratigraphic setting to the nickel sulphide discoveries by Rox Resources at their Camelwood deposit.

Cullen will now seek heritage clearance to drill test these two new ground EM conductors, commencing as soon as possible, and will seek statutory approvals and heritage clearances for extending the ground EM surveying to the north across the VTEM anomalies described above, if they cannot be modeled adequately.

Cullen's Managing Director commented: "We are very encouraged by these new results which have alerted us to a package of ultramafic stratigraphy which hosts a number of untested VTEM anomalies along its length but is underexplored both by previous surface geochemistry, ground EM surveying and drilling. A combination of field geology, geochemistry and ground geophysics is planned to prioritise for nickel sulphide targets along this trend, and also both north and south of the known mineralisation at AK47 along a second trend of prospective ultramafics."



\* Figure.1: Mt Eureka Project – ELs 53/1299, 1300, 1209, 1630, 1635, 1637- Cullen 100%

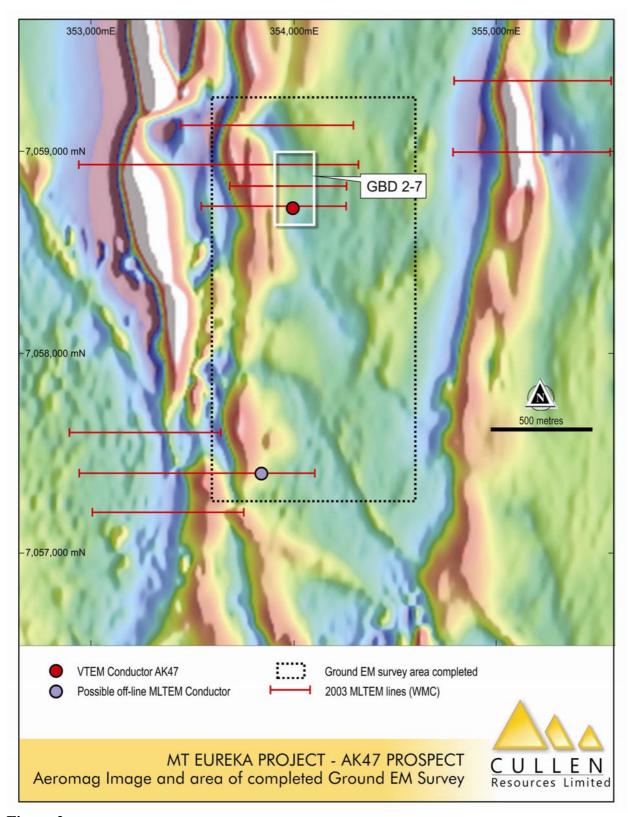
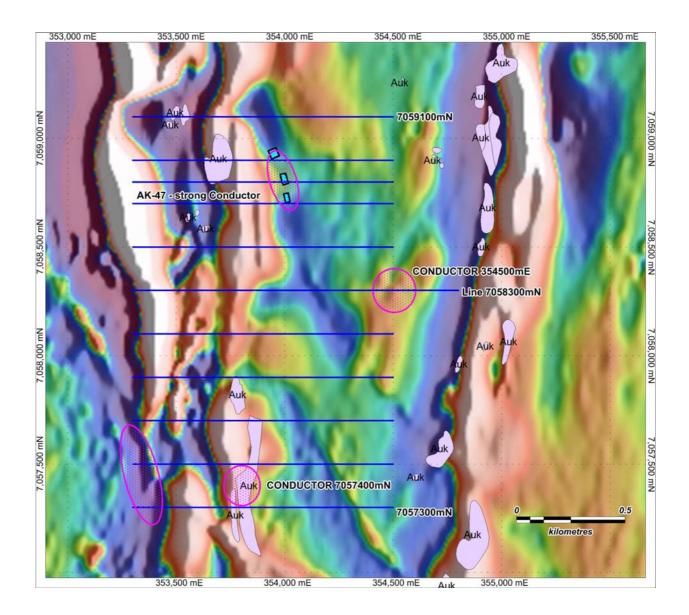


Figure 2



**Figure 3:** <u>AK47 nickel sulphide prospect</u> – **Position of two new conductors** (at 7057400 and 7058300 mN) from the new ground EM survey data – both associated with mapped or interpreted ultramafic rocks and trends. Note strata at the AK47 drill site are younging to the west and dipping moderately east (overturned sequence). Ground EM traverse lines are shown (east-west), 200m spaced, 100m infill. Mapped outcrops of ultramafics marked as "Auk".

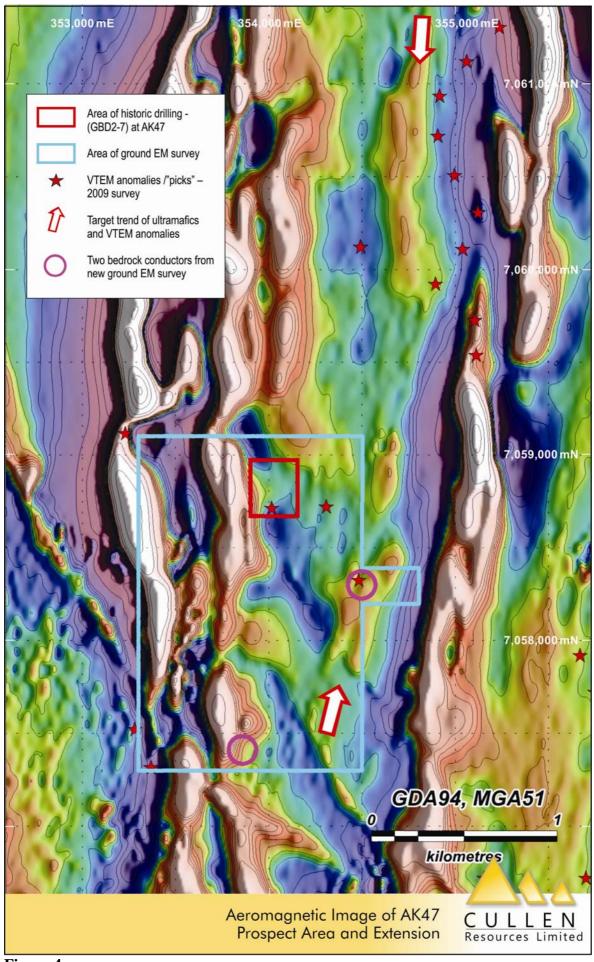


Figure 4

### **Dr Chris Ringrose, Managing Director**

9 April, 2015

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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 (Fortescue, APIJV (Baosteel/Aurizon-AMCI/Posco), Hannans Reward, Northern Star, Matsa and Thundelarra/Lion One Metals), 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

#### 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.

# Table Data description as required by the 2012 JORC Code

Section 1 Sam	pling techniques and data	
Criteria	JORC Code explanation	Comments re ground EM programme
Sampling	Nature and quality of sampling	A ground electromagnetic survey was
technique	(eg cut channels, random chips,	completed using a Moving In-Loop
	or specific specialised industry	configuration. Transmitter loops were
	standard measurement tools	200m x 200m with a three component
	appropriate to the minerals under	fluxgate sensor was used as the receiver.
	investigation, such as down hole	-
	gamma sondes, or XRF	
	instruments, etc.). These	
	examples should not be taken as	
	limiting the broad meaning of	
	sampling.	
	Include reference to measures	At least two readings were performed at
	taken to ensure sample	each station in order to ensure data
	representivity and the appropriate	repeatability.
	calibration of any measurement	
	tools or systems used	
	Aspects of the determination of	Not applicable – no drilling reported
	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 (e.g.	
	submarine nodules) may warrant	
	disclosure of detailed	
	information.	
Drilling	Drill type (e.g. core, reverse	Not applicable – no drilling reported
technique	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.).	
Drill Sample	Method of recording and	Not applicable – no drilling reported
recovery	assessing core and chip sample	
	recoveries and results assessed	
	Measures taken to maximise	Not applicable – no drilling reported
	sample recovery and ensure	
	representative nature of samples	

	Whathan a relationship aviets	Not applicable as delling and delling
	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.	Not applicable— no drilling reported
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.	Not applicable— no drilling reported
	Whether logging is qualitative or quantitative in nature. Core (or costean, channel etc.) photography.	Not applicable— no drilling reported
	The total length and percentage of the relevant intersections logged	Not applicable— no drilling reported
Sub-sampling techniques and sample preparation	If core, whether cut or sawn and whether quarter, half or all core taken.	Not applicable— no drilling reported
	If non-core, whether riffles, tube sampled, rotary split, etc. and whether sampled wet or dry.	Not applicable— no drilling reported
	For all sample types, quality and appropriateness of the sample preparation technique.	Not applicable— no drilling reported
	Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples.	Not applicable— no drilling reported
	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.	Not applicable— no drilling reported
	Whether sample sizes are appropriate to the grain size of the material being sampled	Not applicable– no drilling reported
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.	Not applicable— no drilling reported

	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.	EM Receiver: Smartem 24; EM Transmitter: ORE HP 100 Amp; Sensor: fluxgate magnetometer; Current:100 amps; Base frequency: 1Hz.
XI IC	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.	Not applicable— no drilling reported
Verification of sampling and assaying	The verification of significant intersections by either independent or alternative company personnel.	Not applicable – no drilling reported
	The use of twinned holes  Documentation of primary data, data entry procedures, data verification, data storage (physically and electronic) protocols.	Not applicable— no drilling reported  All primary analytical data were recorded digitally and sent in electronic format to Southern Geoscience for quality control and evaluation.
	Discuss any adjustment to assay data.	Not applicable– no drilling reported
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.	Not applicable— no drilling reported
	Specification of the grid system used.	The grid system is MGA_GDA94, Zone 51
	Quality and adequacy of topographic control.	Topographic data has been obtained from the 2003 AMAG survey, which uses a radar altimeter and GPS for calculation of the digital terrain model. The AMAG survey was flown along E-W lines spaced 500m.
Data spacing and distribution	Data spacing for reporting of Exploration Results.	Not applicable no drilling reported
	Whether the data spacing and distribution is sufficient to establish the degree of geological and grade continuity appropriate for the Mineral Reserve and Ore Re4serve estimation procedure(s) and classifications applied.  Whether sample compositing has	Not applicable— no drilling reported  Not applicable— no drilling reported
	been applied.	Thot applicable— no drining reported

Ground EIVI Survey r	' 	
Orientation of		Not applicable – no drilling reported
data in	sampling achieves unbiased	
relation to	sampling of possible structures	
geological	and the extent to which this is	
structure	known, considering the deposit	
	type.	
	If the relationship between the	Not applicable – no drilling reported
	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.	
Sample	The measures taken to ensure	Not applicable – no drilling reported
security	sample security.	
Audits or	The results of and audits or	All electromagnetic data was quality
reviews	reviews of sampling techniques	checked by Southern Geoscience
	and data.	Consultants
Section 2 Repo	orting of exploration results	
Mineral	Type, reference name/number,	The prospect is located on E53/1299 which
tenements	location and ownership	is 100% owned by Cullen Resources
and land	<u> </u>	Limited. Cullen has signed an agreement
tenure status	issues with third parties such as	with Central Desert on behalf of the Wiluna
	joint ventures, partnerships,	traditional owners who have native title
	overriding royalties, native title	over the respective area. A heritage survey
	interest, historical sites,	was conducted by Central Desert in late
	wilderness or national park and	2014 and approval was given to conduct
	environmental settings.	non-ground disturbing activities on the
	g.	survey area. Target areas will now be
		cleared for drilling.
	The security of the tenure held at	The tenure is secure and in good standing at
	the time of reporting along with	
	any known impediments to	Ç
	obtaining a licence to operate in	
	the area.	
Exploration	Acknowledgement and appraisal	A VTEM survey was carried out by BHP in
done by other	of exploration by other parties.	2009 that showed some VTEM anomalies in
parties		the survey area. The VTEM anomalies
		were recently reviewed by Cullen and
		Southern Geoscience as part of a technical
		review.
Geology	Deposit type, geological settings	The targeted deposit style is an Archaean
	Beposit type, geological settings	
		komatiite-related nickel mineralisation.
	and style of mineralisation.	komatiite-related nickel mineralisation.
Drill hole	and style of mineralisation.  A summary of all information	· · · · · · · · · · · · · · · · · · ·
Drill hole information	and style of mineralisation.  A summary of all information material for the understanding of	komatiite-related nickel mineralisation.
	and style of mineralisation.  A summary of all information material for the understanding of the exploration results including	komatiite-related nickel mineralisation.
	and style of mineralisation.  A summary of all information material for the understanding of the exploration results including a tabulation of the following	komatiite-related nickel mineralisation.
	and style of mineralisation.  A summary of all information material for the understanding of the exploration results including a tabulation of the following information for all Material drill	komatiite-related nickel mineralisation.
	and style of mineralisation.  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:	komatiite-related nickel mineralisation.  Not applicable— no drilling reported
	and style of mineralisation.  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:  • Easting and northing of the	komatiite-related nickel mineralisation.
	and style of mineralisation.  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:	komatiite-related nickel mineralisation.  Not applicable— no drilling reported
	and style of mineralisation.  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:  • Easting and northing of the drill hole collar	komatiite-related nickel mineralisation.  Not applicable— no drilling reported  Not applicable— no drilling reported
	and style of mineralisation.  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:  • Easting and northing of the	komatiite-related nickel mineralisation.  Not applicable— no drilling reported

Ground EM survey r	' T	
	metres)and the drill hole collar	
	· Dip and azimuth of the hole	Not applicable— no drilling reported
	· Down hole length and interception depth	Not applicable— no drilling reported
	· Hole length	Not applicable no drilling reported
	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.	Not applicable— no drilling reported
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.	Not applicable— no drilling reported
	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.	Not applicable— no drilling reported
	The assumptions used for any reporting of metal equivalent values should be clearly stated.	Not applicable— no drilling reported
Relationship between mineralisatio n widths and intercept lengths	These relationships are particularly important in the reporting of Exploration Results.	Not applicable— no drilling reported
	If the geometry of the mineralisation with respect to the drill hole angle is known, its nature should be reported.	Not applicable— no drilling reported
	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')	Not applicable— no drilling reported

Diagram	Ammonwists many and and	and attached along
Diagrams	Appropriate maps and sections	see attached plans
	(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	
Balanced	Where comprehensive reporting	Not applicable— no drilling reported
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.	
Other	Other exploration data, if	Previous diamond drilling in a Cullen-
substantive	meaningful and material, should	WMC JV (2003) intersected massive nickel
exploration	be reported including (but not	sulphides at the AK47 prospect (Drill hole
data	limited to): geological	GBD2) for follow-up in this survey.
	observations, geophysical survey	F and a substitution of the substitution of th
	results, geochemical survey	
	results, bulk samples – size and	
	method of treatment;	
	metallurgical test results; bulk	
	density, groundwater,	
	geotechnical and rock	
	· ·	
	deleterious or containing substances.	
Further work		Further work will include DC and nessible
Turner work	The nature and scale of planned	Further work will include RC and possibly
	further work (e.g. tests for lateral	diamond drilling of modeled conductive
	extensions or depth extensions	plates to test the nature of the conductors.
	or large-scale step-out drilling).	
	Diagrams clearly highlighting	see included figures
	the areas of possible extensions,	
	including the main geological	
	interpretations and future drilling	
	areas, providing this information	
	is not commercially sensitive.	