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ASX Symbol: CUL

4 November 2013

## Gold-bearing sulphide mineralisation confirmed at Southern, Mt Eureka Project, WA

### Summary

- Assay results have been received for five, follow-up RC drill holes that targeted a significant, gold-bearing sulphide zone at the **Southern gold prospect**, with a best intersection of **16m @ 1.5g/t Au in MERC112 and 8m @ 1.11 g.t Au in MERC 115** (4m composite samples)
- Sulphide mineralisation with associated quartz veining was intersected in all five holes drilled and comprises disseminated and semi-massive pyrite, and arsenopyrite
- Drilling confirms the geological model at **Southern** and the geochemical/structural approach to target sulphidic “root systems” to shallow gold mineralisation
- The mineralised zone is potentially open to south, east and west
- The drilling is co-funded through the WA Government’s Exploration Incentive Scheme to a maximum of \$60,000
- New target areas for infill and deeper drilling recognised both at **Southern** and **Galway** immediately to the south where shallow gold mineralisation is semi-continuous over 1km and may extend further south under alluvium

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## Background

Cullen Resources Limited (Cullen) holds 100% of ~650km<sup>2</sup> of approved tenure in the Mt Eureka Greenstone Belt in the North Eastern Goldfields of Western Australia which includes several targets for nickel sulphides and gold (see CUL: ASX announcement of [28 August 2013](#)).

## Southern Gold Prospect

In August, Cullen completed one vertical hole to a depth of 234m (MERC110) at the Southern gold prospect, which intersected a thick (~30m) sulphidic (visually estimated: pyrite, pyrrhotite, arsenopyrite at ~1-10%) zone (ASX announcement of [28 August 2013](#)). Assays from this hole included a best intersection of **8m @ 1.71 g/t Au** in 4m composite samples from 184m, within a 20m thick zone with anomalous arsenic averaging 1360ppm. Individual analyses of individual one-metre samples have now been received (see Table 1 below).

**Table 1. Assay results for one-metre splits, MERC 110 only**

Hole ID	Prospect	Total depth (m)	East (Zone51)	North (Zone 51)	RL (m)	Dip	Azimuth	From (m)	To (m)	Thickness (m)*	Au (g/t)**
MERC110	Southern	234	354348	7056693	525	-90	0	183	192	9	1.38
								204	206	2	3.17
								219	222	3	1.58

\*Thickness does not represent true width

\*\*Gold by fire assay and INAA (c. 30g charge); 0.5g/t Au lower cut-off, no upper cut-off applied

Cullen thereafter completed 5 RC holes on two drill fences some 150m apart (including MERC 110 on the eastern fence) with funding approved through the WA government's Exploration Incentive Scheme. This drilling (**MERC111-115**) tested the down plunge/dip, deeper portions of the known gold mineralisation in the regolith at Southern, seeking to demonstrate some continuity and higher grade.

This drilling confirmed the geological model which predicts that gold mineralising structures (low-angle faults/thrusts/shears) strike east-west and dip to the north where drill tested to date. Mineralisation was intersected in all five holes drilled and comprises disseminated and semi-massive pyrite (visually estimated 30-40% over 1m), and arsenopyrite associated with quartz veining. The host rocks are mafic volcanics, felsic intrusives and meta-sediments, variably affected by alteration and metasomatism.

Assays results indicate broad zones of anomalous to low-grade gold which form a mineralized surface dipping at 40-45° to the north and striking east-west. It is predicted that this mineralized lode system, close to a mafic /ultramafic contact, is part of a synformal structure, plunging northwards. The contact/mineralized horizon can be targeted to the east, west, up-dip and between the 150m spaced sections just completed, to test the extent and grade range of the lode system.

## Galway Gold Prospect

In addition, the gold mineralisation known from historic, shallow drilling at the Galway prospect (**7m @ 6.7 g/t Au**, MEAC 156 from 47m and **1 m @ 14.3 g/t Au**, MEAC 147 from 42m) just south of Southern, includes several targets for deeper drilling by applying Cullen's current Southern model. Known shallow gold mineralisation is semi-continuous over 1km from Southern to Galway and may also extend to the south under alluvium (see Figures).

**Table 2. Assay results for four-meter composite samples, MERC 111-115**

Hole ID	Prospect	Total depth (m)	East (Zone51)	North (Zone 51)	RL (m)	Dip	Azimuth	From (m)	To (m)	Thickness (m)*	Au (g/t)**
MERC111	Southern	198	354351	7056639	525	-90	0	36	48	12	0.36
								68	72	4	0.53
								96	100	4	0.21
								144	152	8	0.53
								160	180	20	0.40
MERC112	Southern	222	354200	7056647	525	-90	0	156	172	16	1.50
MERC113	Southern	234	354200	7056705	525	-90	0	24	28	4	0.24
								132	136	4	0.58
MERC114	Southern	258	354197	7056750	525	-90	0	48	52	4	0.44
								224	236	12	0.30
MERC115	Southern	258	354352	7056736	525	-90	0	44	48	4	0.33
								208	216	8	1.11

\*Thickness does not represent true width

\*\*Gold by INAA (c. 30g charge); 0.2g/t Au lower cut-off, no upper cut-off applied

## Conclusions

The recent RC drilling at Southern confirms the presence of a gold mineralised lode, of moderate grade where tested below the base of complete oxidation to date. **The mineralisation is potentially open, to the west and east, and up-dip.**

The results have confirmed the validity of the geochemical/structural approach applied at Southern for targeting the sulphidic “root systems” to gold mineralisation found in shallow drilling, and this exploration targeting methodology can now be applied to the multiple targets to the south and north of Southern (see Figures).

This model and approach will in the first instance be used to more fully test known shallow gold mineralisation at Galway and to the south undercover.

**Dr Chris Ringrose, Managing Director**

**4 November, 2013**

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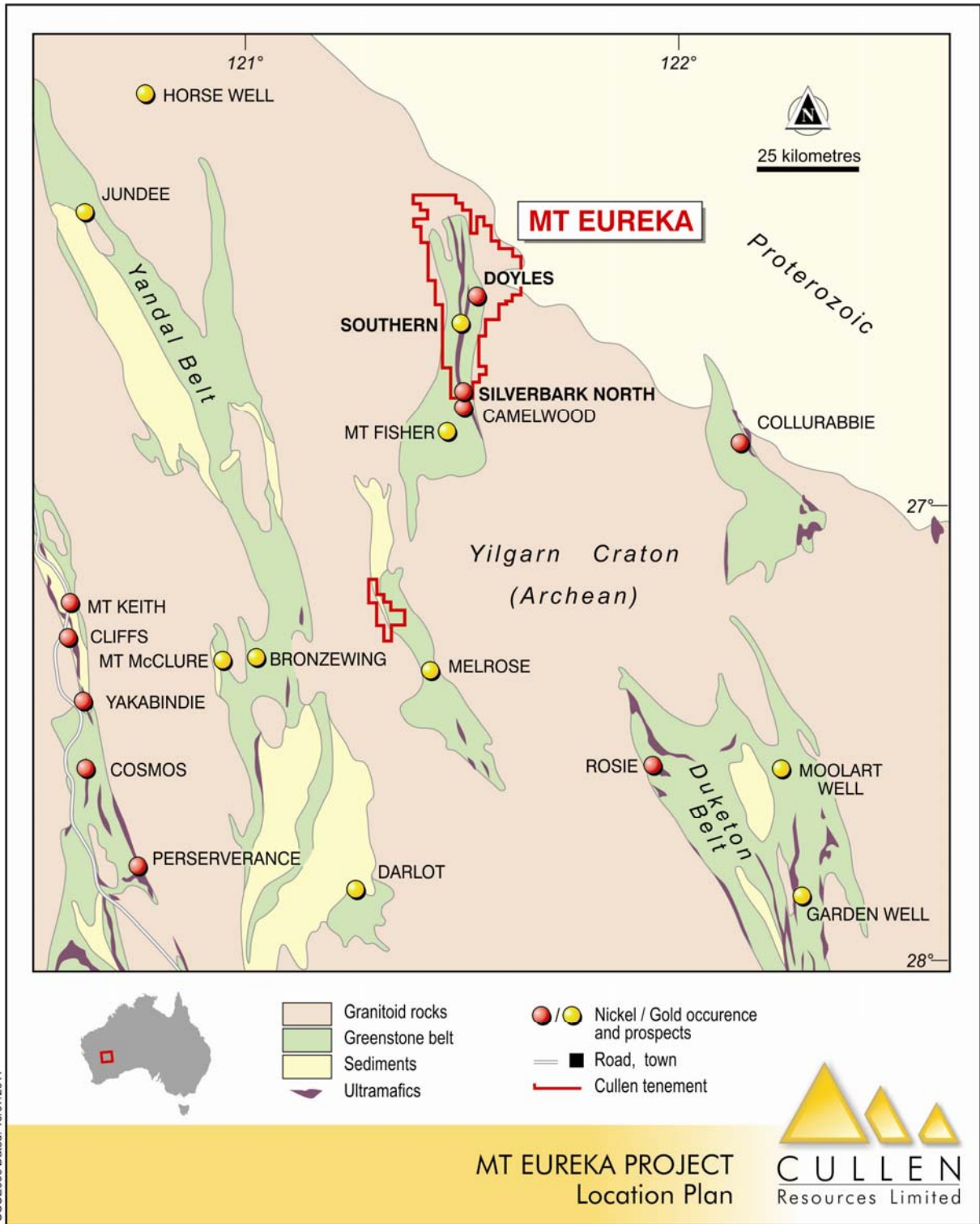
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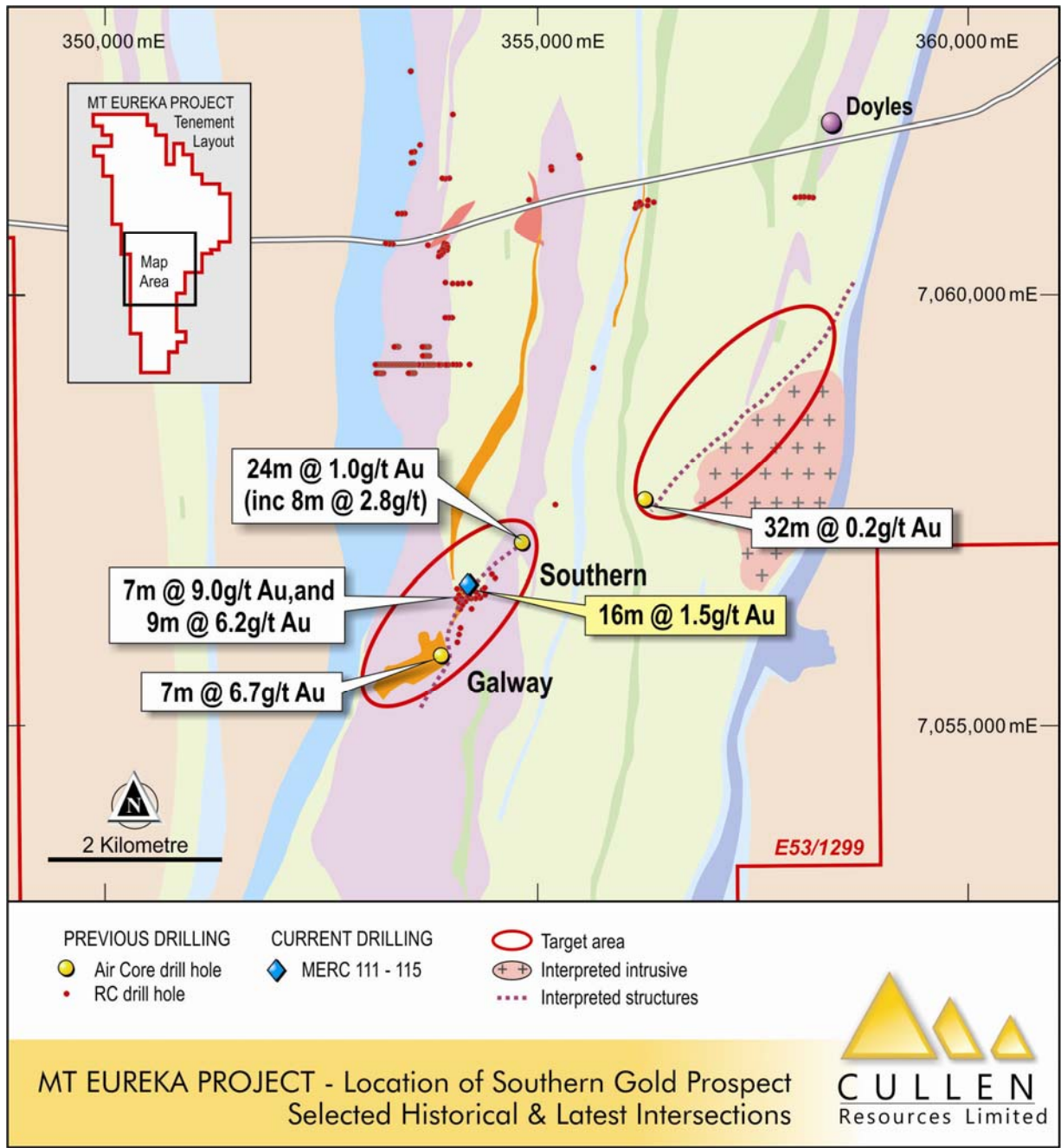
**ABOUT CULLEN:** Cullen is a Perth-based minerals explorer with a multi-commodity portfolio including projects managed through a number of JVs with key partners (FMG, APIJV (Aquila-AMCI), Hannans Reward, Northern Star, Matsa and Thundelarra/Lion One Metals), and a number of projects in its own right. The Company’s strategy is to identify and build targets based on: data compilation, field reconnaissance and early-stage exploration (particularly geochemistry). Projects are sought for most commodities mainly in Australia but with selected consideration of overseas opportunities, currently in Namibia, Canada and Scandinavia. A number of Cullen’s 100%-owned projects are at the target drill-testing stage.

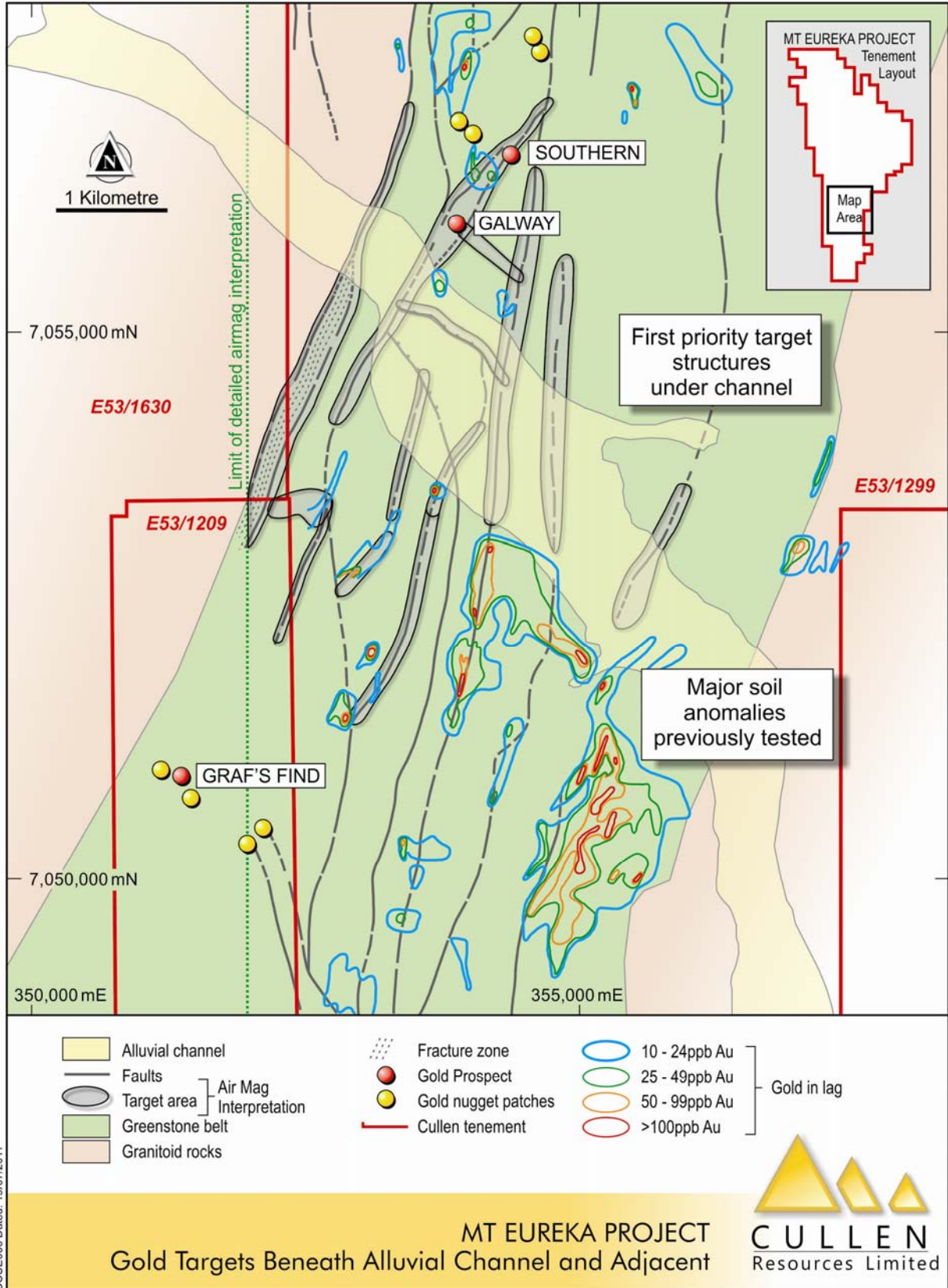
**ATTRIBUTION:** **Competent Person Statement**

*The information in this report that relates to Exploration Results and Exploration Targets 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 2004 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.*



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