



CULLEN RESOURCES LIMITED

ABN 46 006 045 790

**QUARTERLY REPORT** for the period ended 30 September 2016

[www.cullenresources.com.au](http://www.cullenresources.com.au)

**ASX Symbol: CUL**

31 October 2016

## HIGHLIGHTS

Cullen Resources Limited (“Cullen” or “the Company”) is developing a broad range of exploration targets for gold, lithium and base metals, and has interests in iron ore through the Mt Stuart Iron Ore Joint Venture in the West Pilbara, W.A. The Company maintains project generation activities in Australia and Finland, to develop farm-out opportunities or new targets for its own exploration.

During the Quarter the Company has:

1. Selected from its database, several drill-ready targets for gold and nickel from within its large Mt Eureka Project (Cullen 100%), North Eastern Goldfields of W.A., for field review and prioritisation.
2. Undertaken data compilation and initiated field checking and sampling of pegmatite occurrences within the Rita Reservation in Finland for lithium. The Company has a portfolio of six lithium exploration tenements and applications in key prospective regions of W.A., and has lithium interests in Finland (Cullen 100%) where it is also seeking opportunities for base metals and cobalt.
3. Initiated (in October): a soil sampling program within the North Tuckabianna Project east of Cue, W.A. (Cullen 100%) over VTEM anomalies targeting gold and copper; and rock chip sampling of quartz veins in basalts along the eastern granite-greenstone contact for gold.
4. Acquired a tenement application (Cullen 90%) in the Wongan Hills greenstone belt, centered on a significant geochemical anomaly (from published research). Cullen considers the geologic setting is prospective for gold and base metals mineralisation in Volcanic Hosted Massive Sulphide-type (VMS), orogenic gold and Boddington-type gold deposits.

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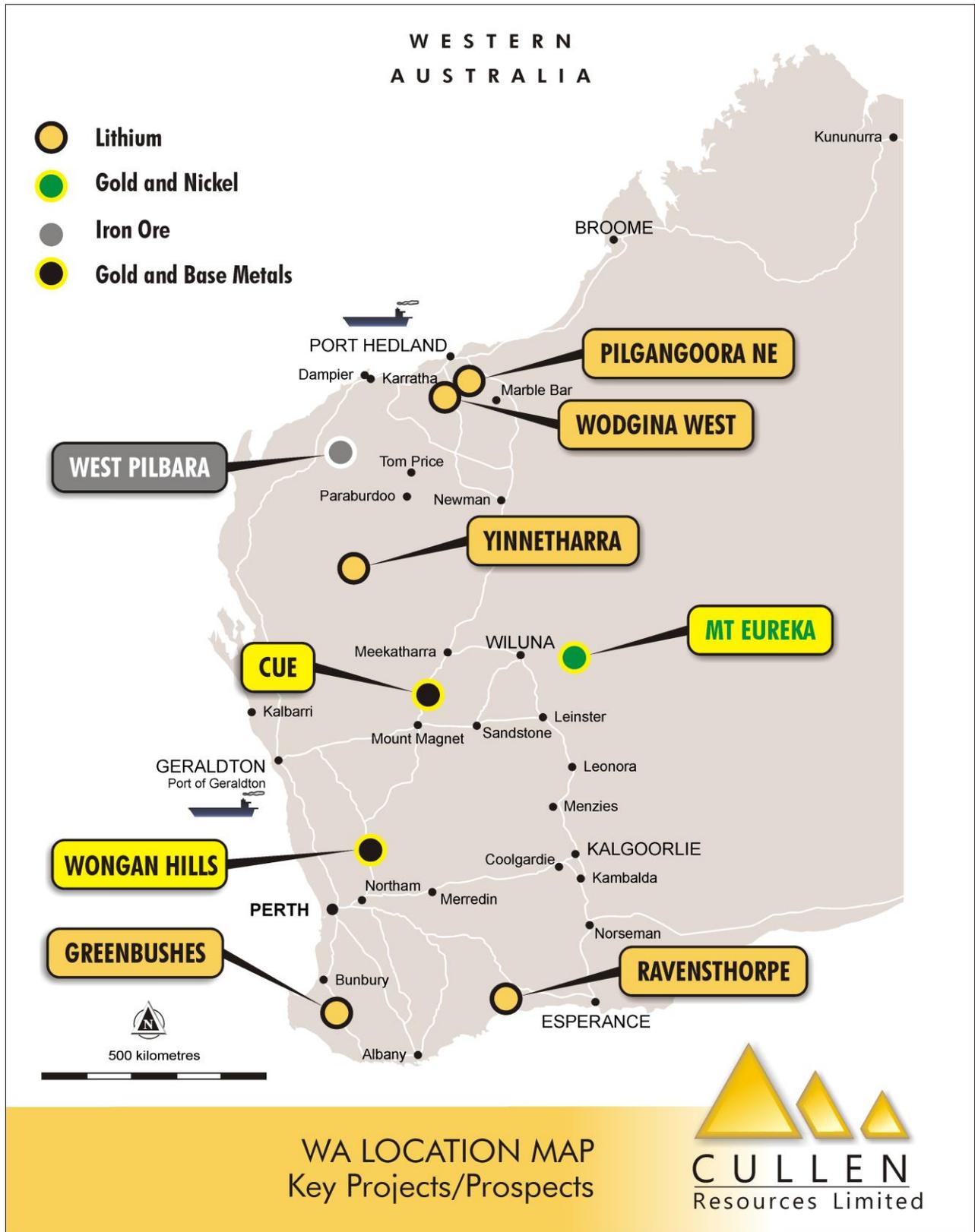
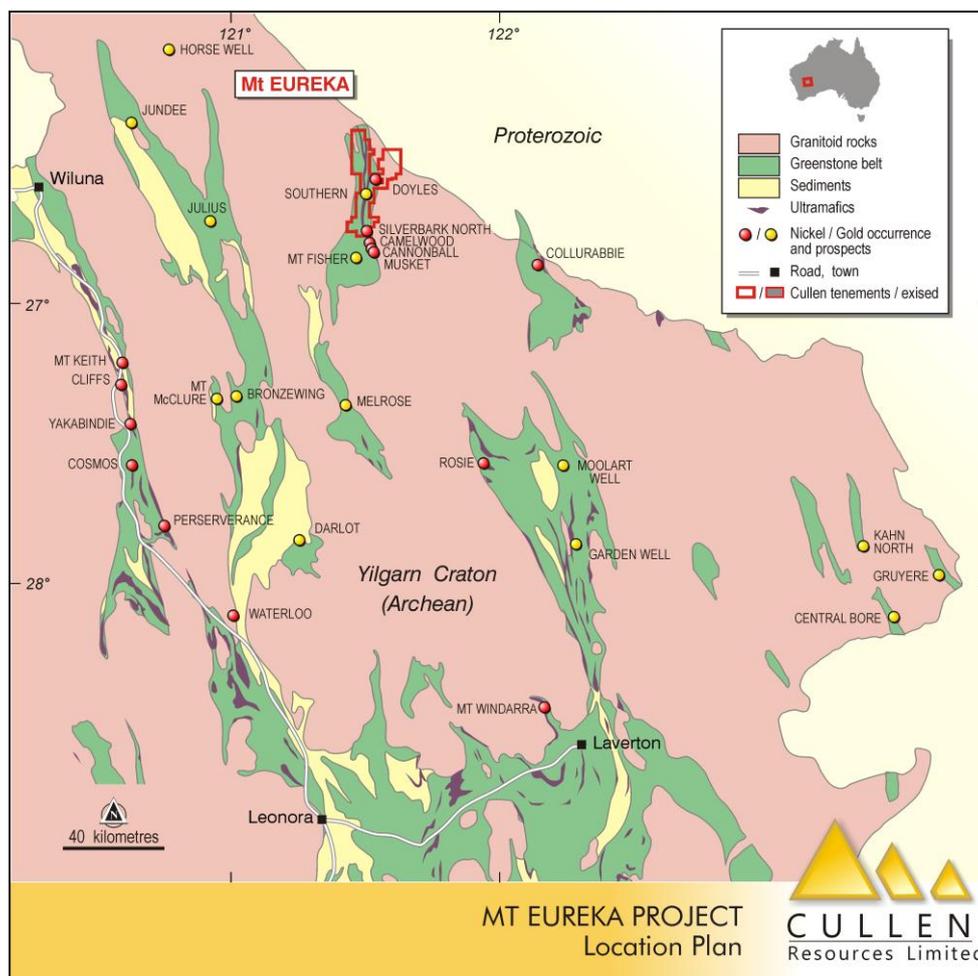


Figure 1.

## MT EUREKA, NORTH EASTERN GOLDFIELDS, W.A. – Gold and Nickel

Cullen holds 100% of ~ 450km<sup>2</sup> of approved tenure and applications in the Mt Eureka Greenstone Belt in the North Eastern Goldfields of Western Australia (Fig. 2) which includes multiple targets for gold and nickel sulphides.



**Figure 2: Mt Eureka Project** – ELs 53/1299, 1300, 1209, 1635, 1637 and ELA's 53/1892, 1893- Cullen 100%

In October 2015, Cullen drilled an intersection of 5m at 12.43 g/t Au to the end of hole (45 - 50m) at the **Galway prospect**, part of the large Galway-Southern mineralisation zone, where historical drill holes with maximum values greater than 0.5 g/t Au occur across an area of approximately 1200 x 200-400m (from air core and RC drill traverses at 50-100m along strike).

In late June 2016, Cullen completed a programme of RC drilling (9 holes for 960m) at the Galway prospect to test beneath and along strike from this air core anomaly and to better understand the controls to gold mineralisation. Assay data reported includes a best of : **5m @ 7.84 g/t Au (from 95m)** and **10m @ 4.74 g/t Au (from 50m)** - 5m composite samples. Several intervals of 5 to 15m down-hole length of low grade (> **0.1 g/t Au** to < **1.58 g/t Au** in 5 composite samples) were also reported (see interpreted x-section, Fig 4).

The gold mineralisation at the Galway-Southern prospect area is one of several target areas for further evaluation, prioritisation and drill testing. During the Quarter Cullen has continued to review its extensive databases and current models for gold mineralisation in the region, and selected four areas for immediate follow-up to include drilling viz:

- **Galway - Southern** – along NE and NS structures (Figure 3);
- **Taipan - Cobra** – to the east and west of existing air core drilling, and along an interpreted sediment-volcanic stratigraphic contact heading NE (which is relatively untested – see following Figures 5 and 6);
- **Irwin Bore** (south of Taipan) - where an interpreted intrusive lies on the Taipan stratigraphic trend (relatively untested target – see Figure 6); and,
- **Graff's Find** - structural and intrusive anomaly (untested to the north – see Figure 6).

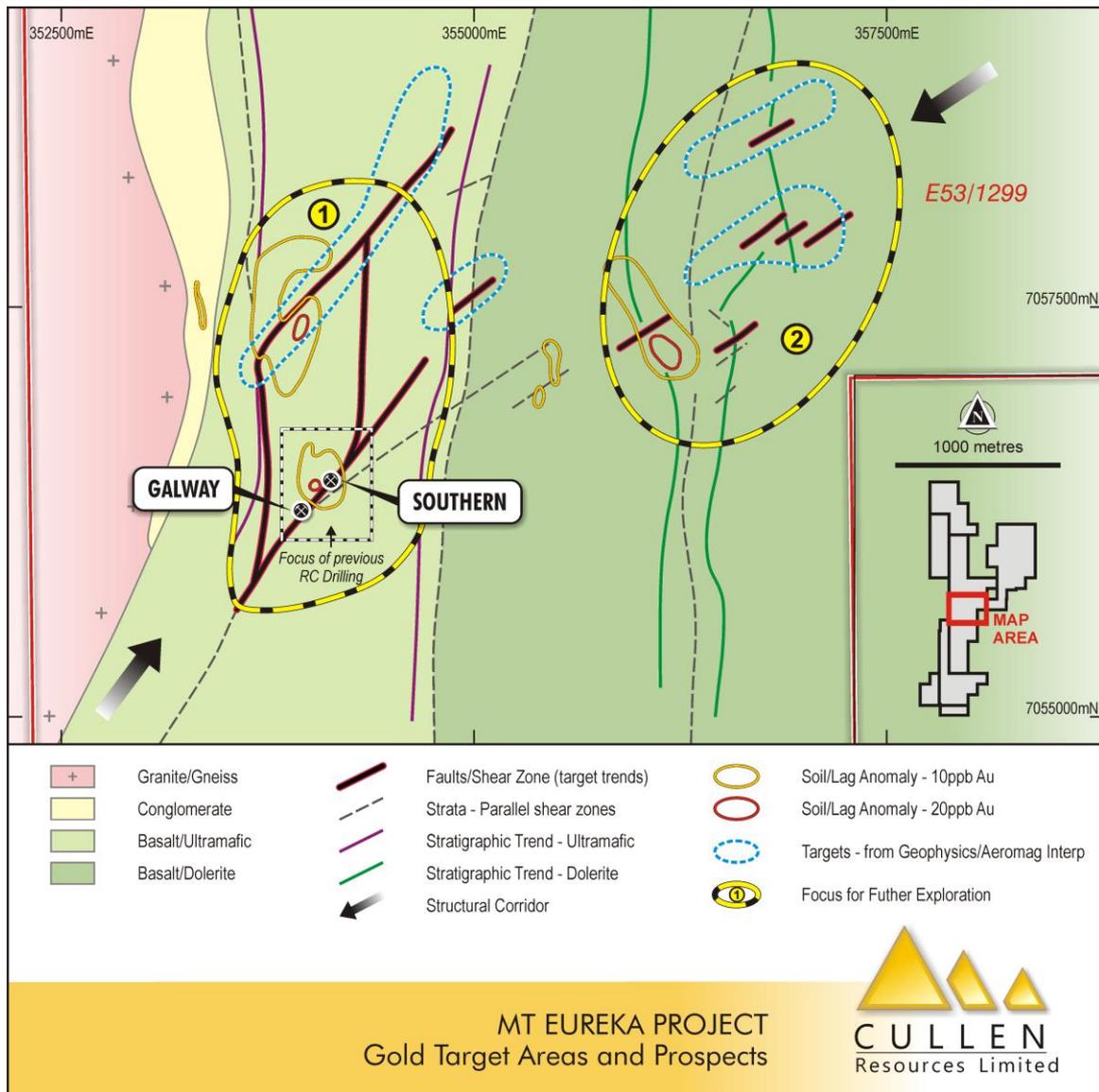


Figure 3: Mt Eureka Project – Southern –Galway and surrounding targets

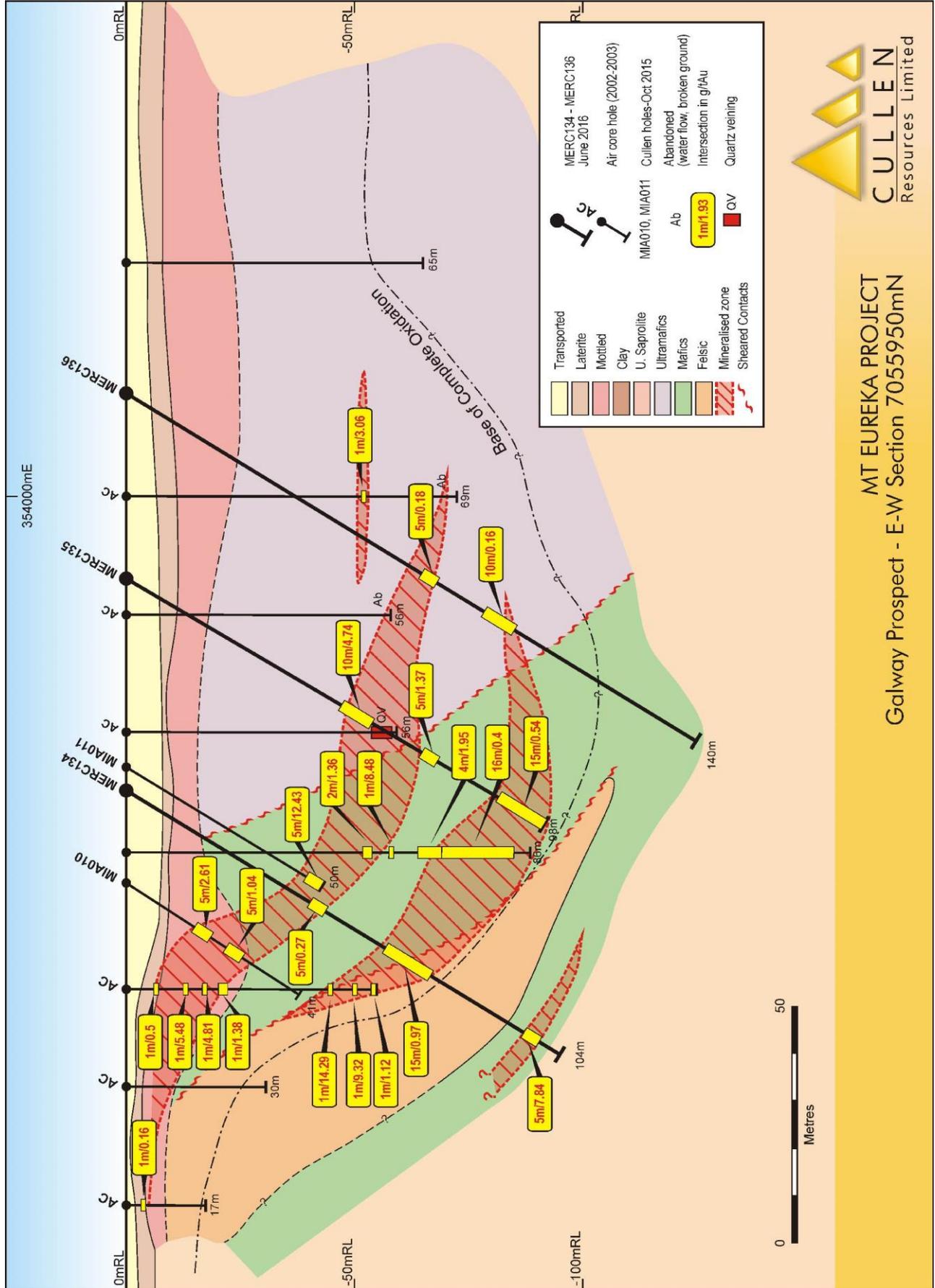
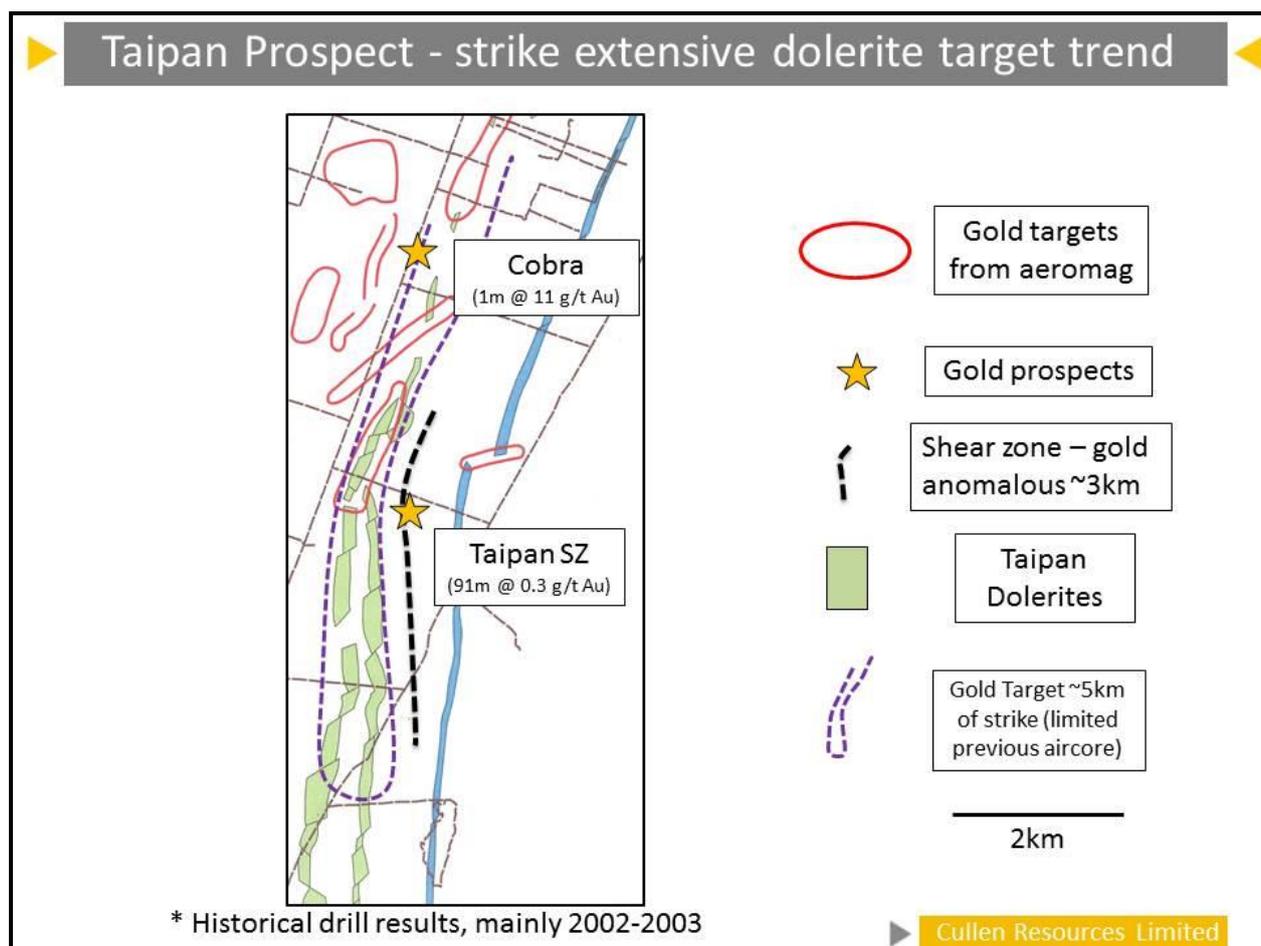


Figure 4

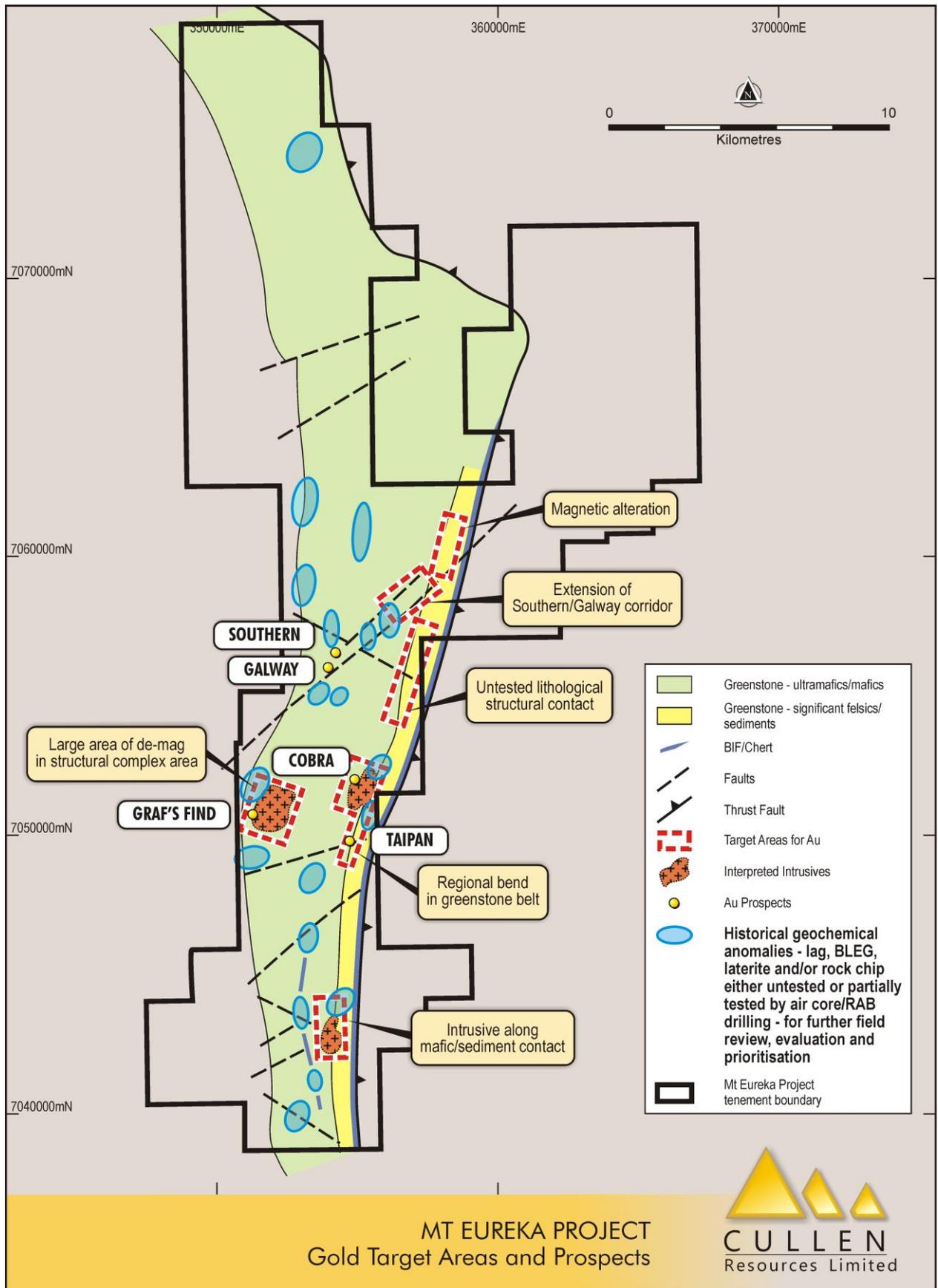


**Figure 5: Mt Eureka Project – Taipan Prospect**

A programme of drilling is planned to further test the **Taipan** gold prospect at Mt Eureka pending heritage clearance to test:

- soil anomalies east of the current extent of drilling along the Taipan shear zone (91m @ 0.3 g/t Au);
- along strike north east of Cobra (1m @ 11 g/t Au); and,
- to test for differentiation in dolerites (often quartz dolerites are the focus for gold mineralisation).

**Cullen has selected 17 gold geochemical anomalies for further exploration in the Mt Eureka project. Most of these are coincident with structural / lithological anomalies, as interpreted from aeromagnetics data, strike persistent, strata parallel N-S shears and thrusts; and/or NW and NE trending shears and thrusts - providing numerous favourable settings for gold mineralisation – Figure 6.**



**Figure 6: Location of main gold target areas – from aeromag, soil anomalies and structures – Mt Eureka Greenstone Belt**

## **WONGAN HILLS GREENSTONE BELT, W.A.**

Cullen (90%), together with consultant geologist Roger Thomson (10%) has applied for an Exploration Licence (ELA 70/4882) over the northern part of the Wongan Hills Archean Greenstone belt to explore a historical geochemical anomaly in laterite for gold and/or base metal deposits. The target occurs within a favourable geological setting in a greenstone belt with known Cu - Au mineralisation.

The targeted geochemical anomaly in laterite at Wongan Hills has a significant multi-element chalcophile index ("CHI6") of 3361 (data from "Laterite geochemical database for the western Yilgarn Craton, Western Australia", Cornelius, M., et al. 2007). This type of geochemical index was used to map a dispersion halo to the Scuddles and Gossan Hill deposits at the large Golden Grove copper-zinc-gold mine (Smith, R.E. and Perdrix, 1983).

The Wongan Hills anomaly Cullen is targeting is comparable in tenor and character to that marking the Golden Grove ore deposits and also coincides with a 3.5km-long Au anomaly in soil as reported by previous explorers (Red River Resources Limited report A71944, dated Jan 2006 on WAMEX) with no record of any previous drilling of this target.

Proposed first pass exploration to include: nominal 1km-spaced laterite sampling to confirm target extent and character, to be followed by geological mapping, rock and soil sampling, acquisition of existing aeromagnetic data and consideration of a VTEM survey.

## MT STUART IRON ORE JV, WEST PILBARA

The **Manager** has provided the following information for the Quarter ending 30 September, 2016 for the Mt Stuart Iron Ore Joint Venture, “MSIOJV” (ELs 08/1135, 1292, 1330, 1341 and ML’s 08/481,482) - Cullen Exploration Pty Ltd (30% and contributing).

### Background

API Management Pty Ltd (**APIM**) is the manager of three joint ventures: the APIJV between Aquila Steel Pty Ltd (Baosteel & Aurizon) and AMCI (IO) Pty Ltd (AMCI & Posco); the **MSIOJV** between APIJV and Cullen Exploration Pty Ltd and the Red Hill Iron Ore Joint Venture (**RHIOJV**) between APIJV and Red Hill Iron Limited. These joint ventures hold the iron ore rights over a number of deposits that form part of the WPIOP, located in the northern part of Western Australia.

The current WPIOP development concept involves iron ore production of 40 million tonnes per annum (dry), transportation of the ore via a new 250 km railway and export to Asian markets via a new deep-water port facility located at Anketell Point.

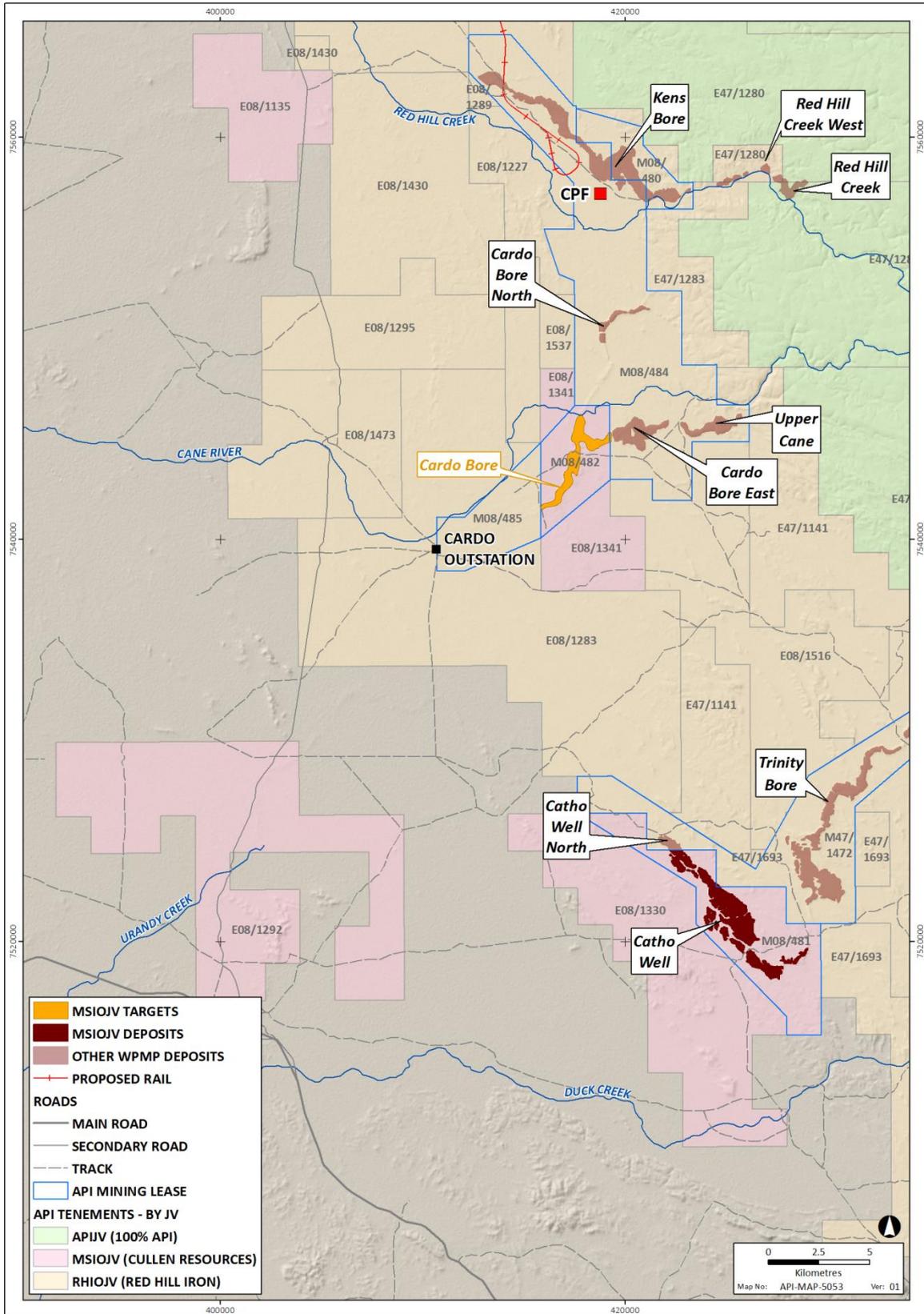
Up until December 2015, APIM had been conducting mine and market feasibility studies for the potential development of the WPIOP, with project partner Aurizon conducting a feasibility study relating to rail and port components of the WPIOP. However, in late December 2015, the Manager was advised by the APIJV Participants that due largely to the current iron ore market conditions, they have decided to discontinue the previously targeted completion of a definitive feasibility study on the WPIOP by mid-2016.

During the quarter, APIJV Participants (**APIJVPs**) continued to assess options for an integrated rail and port infrastructure solution. Key WPIOP approvals continued to be progressed.

### Highlights

- Geological and mineralisation modelling of the Cardo Bore Channel Iron Deposit (CID) was completed during the September Quarter in preparation for Mineral Resource Estimation. This work is expected to be completed next Quarter with the result assisting with mine planning and optimisation work.
- Aerial RGBi imagery to 20cm resolution was flown over the broader WPIOP tenement area including all tenements within the MSIOJV.
- Areas of potential project value optimisation and enhancement will continue to be investigated over the balance of 2016. Australian Premium Iron Joint Venture (APIJV) owners are finalising a desktop study to consider an integrated rail and port infrastructure solution. Key WPIOP approvals will also continue to be progressed.
- MSIOJV expenditure for the quarter totalled \$0.26M. This was below the budget of \$0.36M due primarily to reduced activity leading to lower Land Management and Environmental expenditure.

Figure 1 – Location Plan



END OF MANAGER'S INFORMATION (APIM)

## LITHIUM EXPLORATION

Cullen has lodged six exploration licence applications in W.A. over areas totalling ~450km<sup>2</sup> that it considers prospective for rare metal, tin-tantalum-lithium (Sn-Ta-Li) pegmatite mineralisation and which require further evaluation and prioritisation. Two applications are now granted – E74/575 and E47/4803.

These applications are in important lithium regions including Pilgangoora-Wodgina, Greenbushes, Ravensthorpe and Yinnetharra and include a number of reported pegmatite “Tin-Tantalum-Lithium (Sn-Ta-Li) or Industrial Pegmatite Minerals Target Group Commodity” occurrences (MINEDEX database). On 22 July 2016, Cullen reported to the ASX, the results of preliminary field assessment on four of these tenement applications, with encouraging results from ELA 45/4626, 30km NE of the Pilgangoora lithium project, and is continuing to prioritise the tenements for further work.

### **FINLAND – “ RITA” RESERVATION - (Cullen 100%)**

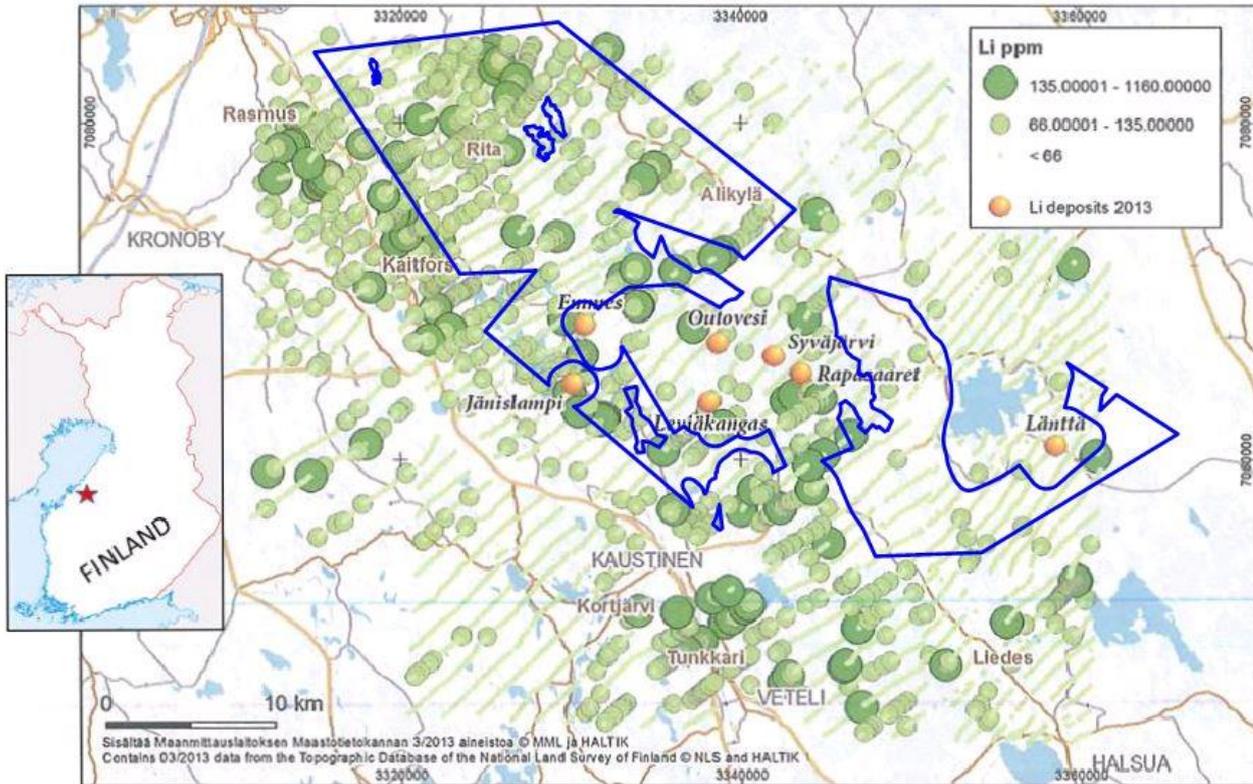
Cullen is also positioned in Finland for lithium, base metal and cobalt exploration with three reservation applications – see Cullen’s ASX announcement of 16 June 2016.

Finland offers a favourable exploration/mining jurisdiction and is very well-positioned in Europe to meet increased demand for lithium and related elements for new technologies going forward. In Finland, Cullen will follow a prospect generator/farm-out business model as practised by the company over the past several years in Australia. This is an appropriate and prudent approach which utilises the excellent public geological databases in Finland and the low tenure costs in the early stages of exploration. Cullen will focus on exploration for lithium, gold, copper and cobalt. Cullen has had significant previous experience prospecting and exploring in Finland and has good contacts with well-regarded geological consulting groups based in Scandinavia to facilitate efficient operations.

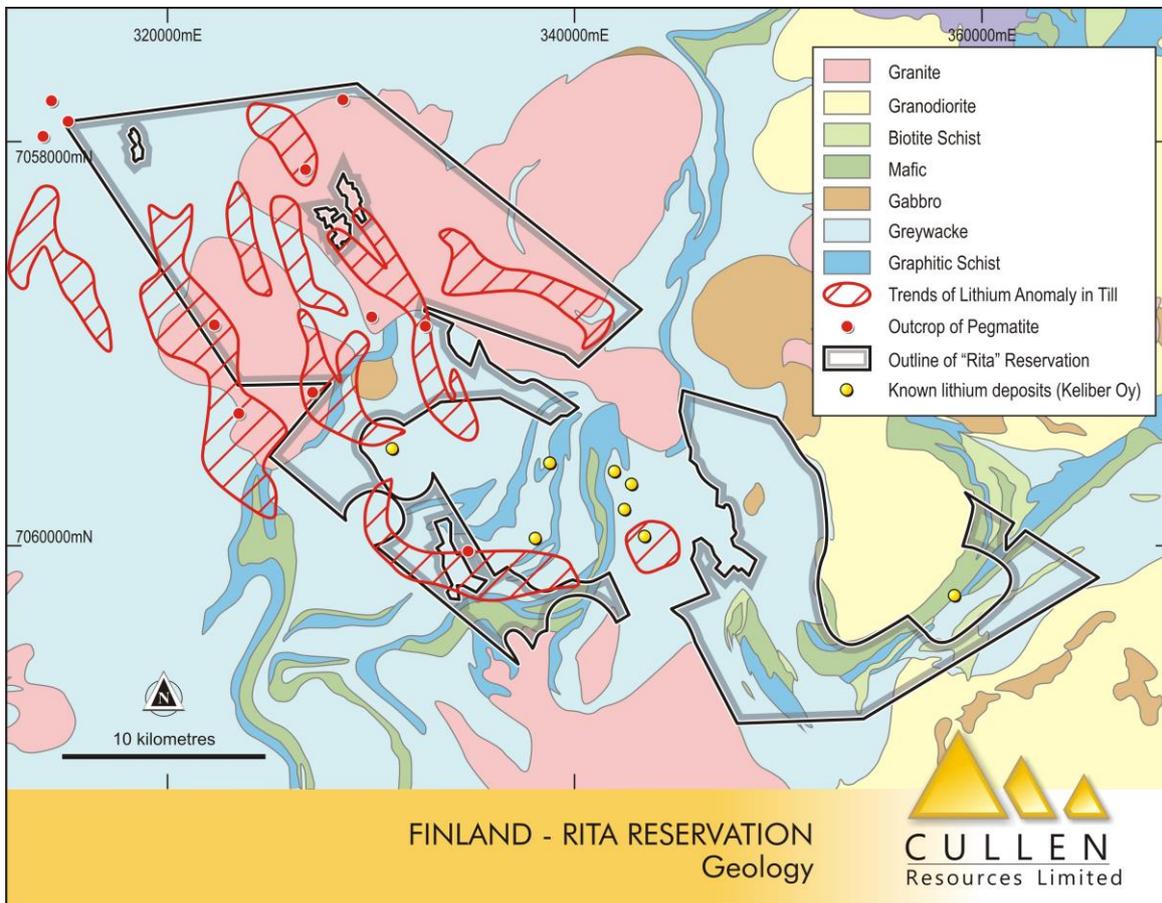
As announced to the ASX on 16 June, 2016, Cullen received notification that its Reservation Notification application\* (“Rita”) lodged for lithium exploration surrounding known spodumene-bearing pegmatites with defined resources in Western Finland, has been approved and is valid until 1 May 2018 - see location of deposits owned by Finnish Company Keliber Oy ([www.keliber.fi](http://www.keliber.fi)) – see Figure 7.

Interrogation of this till data for the Rita Reservation and surrounding area (by Finnish-based consultants “Geopool”) has identified trend lines of Li-in-till anomalies (see Figure 8 below) which point to a target area and the focus of first-pass ground checking for lithium pegmatites.

**An initial field programme to review these anomalous trends in till is in progress.**



**Figure 7 :** From Geological Survey of Finland Report, 220\*, shows till assays of lithium – up to 1160 ppm (area of anomalies measures ~ 50 x 20 km) with Cullen’s Reservation Notification ‘RITA’, shown in blue outline. The glacial flow direction at Kaustinen is from NW to SE about 150-160°. (Note - “till” = unsorted glacial sediment).

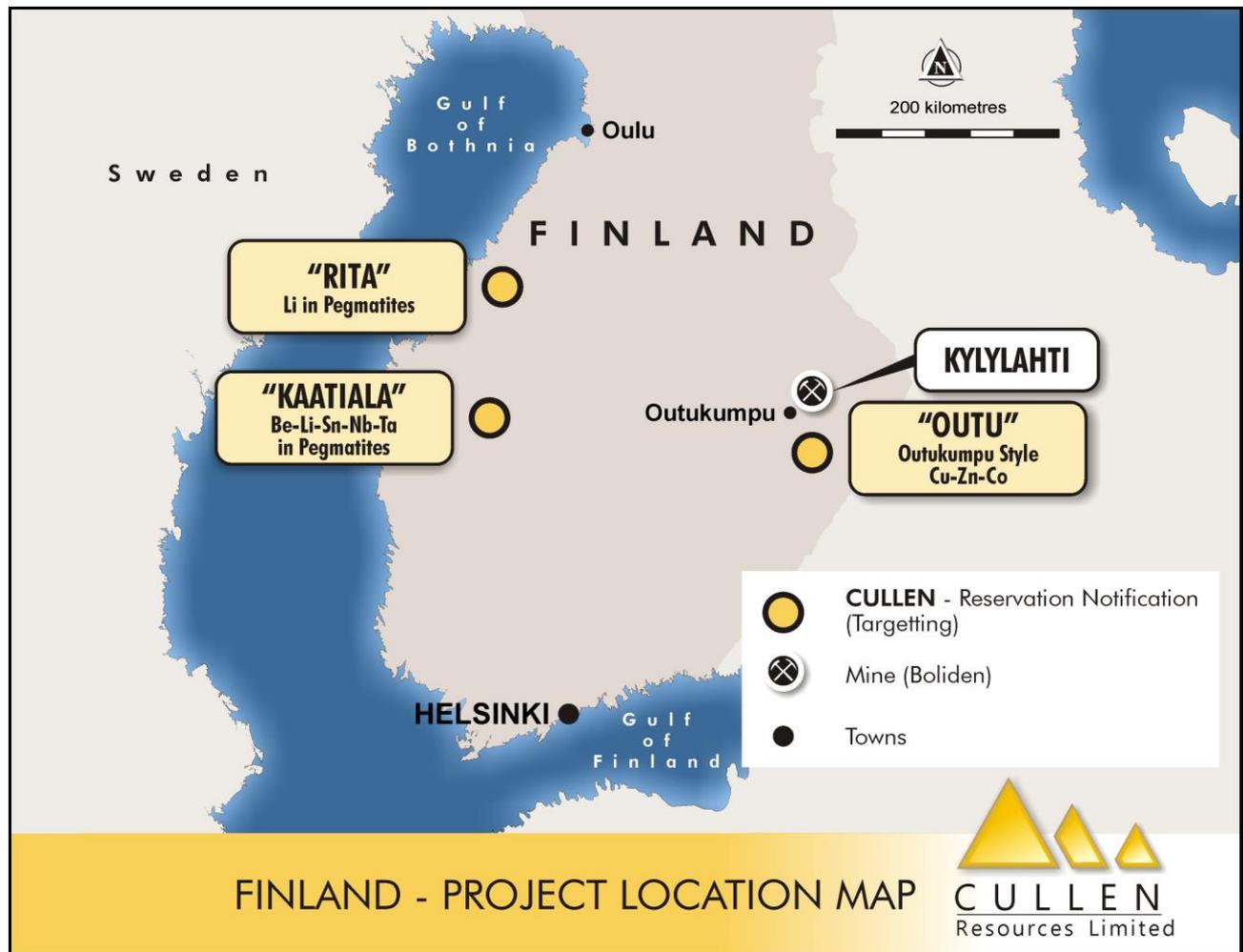


**Figure 8**

Two further Reservation Notification applications have been lodged by Cullen, for a total of ~420km<sup>2</sup>:

- one , of ~320km<sup>2</sup>, lies within the copper-cobalt (Cu, Co) and cobalt-nickel-copper-zinc (Co, Ni, Cu, Zn) metallogenic areas (www.tukes.fi) near Outokumpu, and surrounds known mineralisation at Kettukumpu (Cu, Ni, Fe, Co, Zn) and Hietajarvi (Zn, Cu, Ni, Co) which are claimed by Finnaust Mining Finland Oy and excluded from Cullen’s application.
- The second Reservation Notification application includes a quarry at Kaatiala from where small quantities of beryl and columbite (a niobium ore) have been produced from pegmatites. There are other mapped pegmatites in this area for further exploration.

**These applications have now been registered - valid until September 2018.**



**Figure 9**

## NORTH TUCKABIANNA PROJECT

This project (E20/714 – Cullen 100%) lies along the Tuckabianna gold trend, ~35 km east of Cue, W.A., with prospectivity for gold and base metals. Previous exploration by Cullen has included VTEM surveying, ground EM, RC drilling and downhole EM, plant and rock chip geochemistry, and data compilation. Recent exploration activity by Musgrave Minerals Limited (ASX: MGV) on tenure adjoining Cullen’s E714 to the south, has included further drilling at the Mt Eelya and Hollandaire base metal prospects and , in Cullen’s opinion, has underlined the good base metal prospectivity of its project area. Musgrave has also made a new gold discovery at their “Break of Day” prospect, comprising high-grade gold in quartz veins hosted in mafics (see MGV: ASX announcement of 27-10-2016).

In Cullen’s opinion, a number of gold and base metal targets (from geochemistry and geophysics data) within E20/714 remain to be fully tested, and an intrusion-related /porphyry mineralisation style for copper, beneath the felsic Eelya complex has previously been postulated by Cullen.

Gold targets include (see following figures):

- Down-dip and along-strike of gold anomalies that were delineated by Cullen’s September 2011 Air Core/RAB drilling program on the Tuckabianna Trend;
- A group of “weak to moderate” VTEM anomalies (C10-C12) on the eastern margin of the granite-greenstone contact and/or within an interpreted Banded Iron Formation; and,
- Strike-extensive, quartz veins, part of the eastern margin, BIF stratigraphy.

Base Metal targets include several low-order VTEM anomalies (C07-C9) immediately east of Hollandaire which remain to be fully tested. These anomalies may be deep-seated conductors, with a very weak surface EM response.

**A detailed (200 x 50m) soil sampling program covering the “C07 to C09” VTEM anomalies, and prospecting and rock chipping of quartz veins around “C10 to C12” is currently in progress (see following figures).**

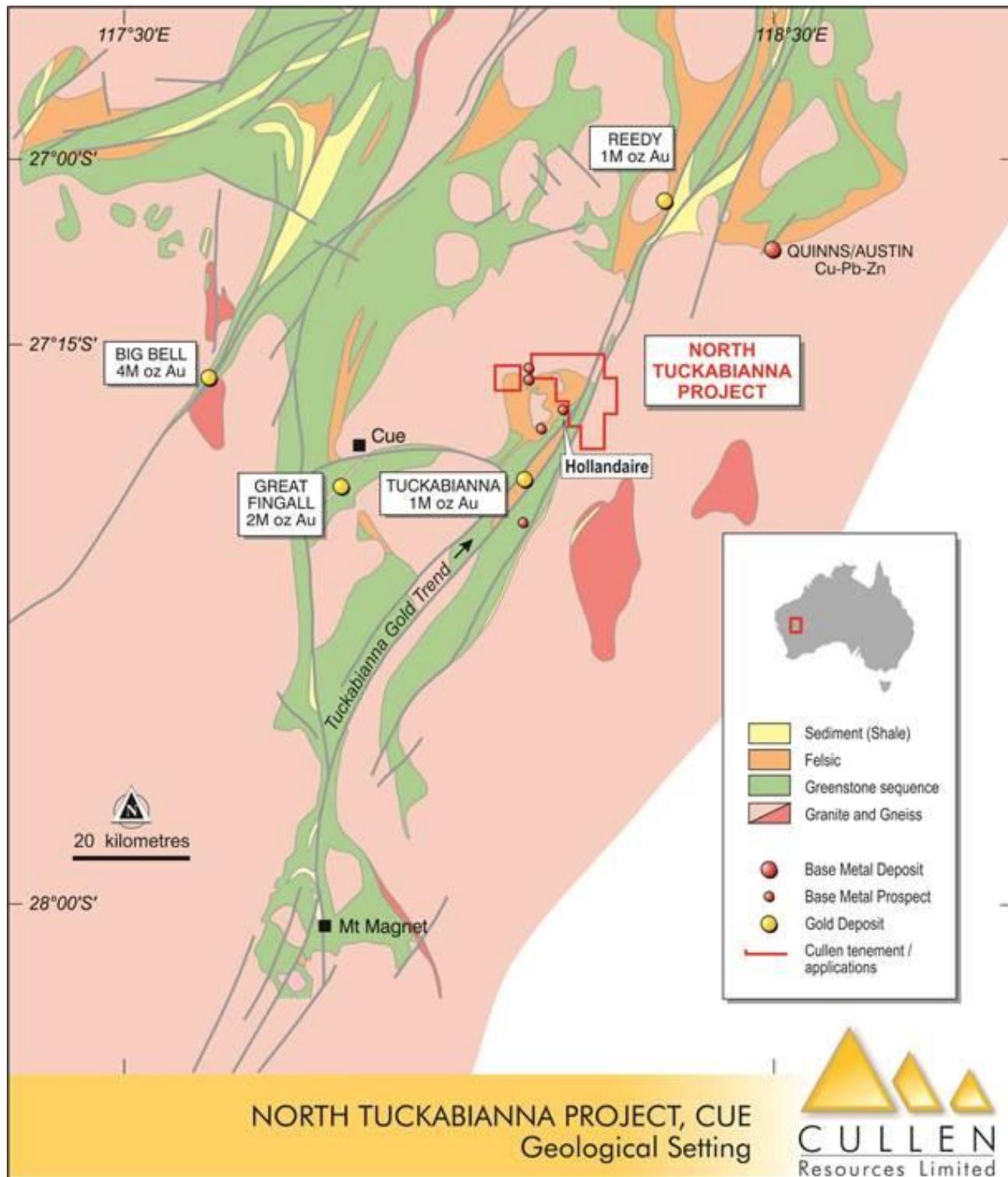
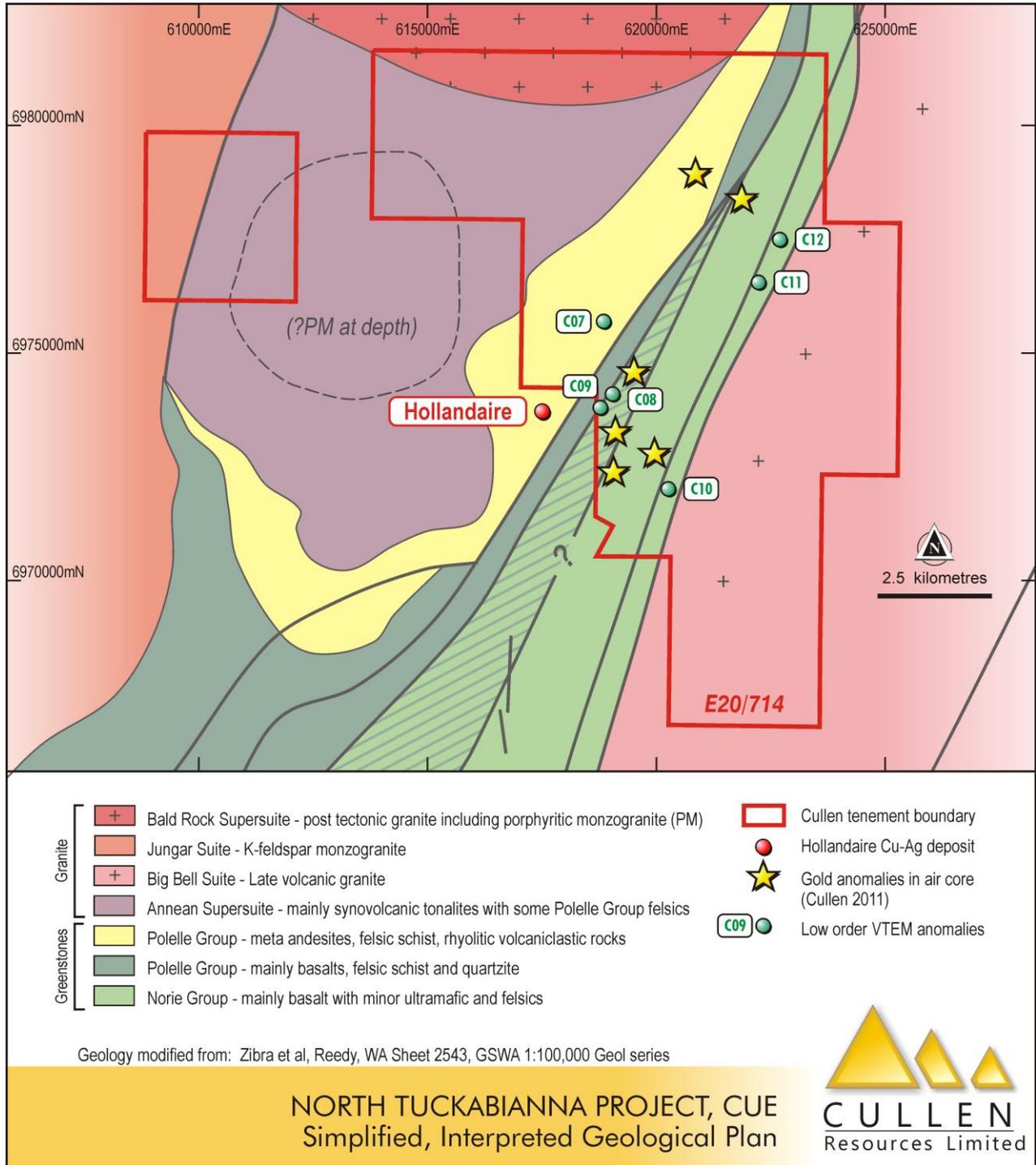


Figure 10



**Figure 11**

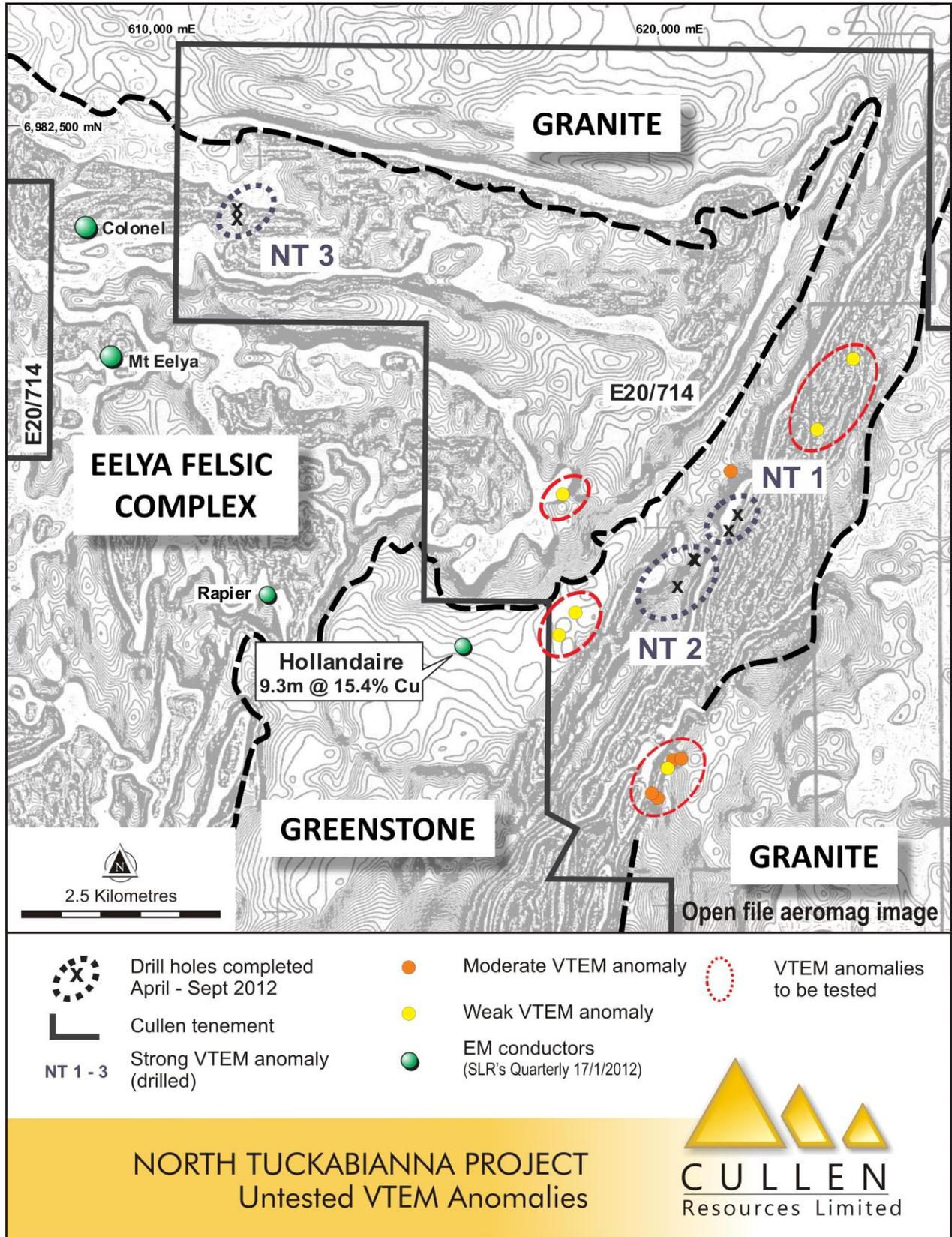


Figure 12

## EASTERN GOLDFIELDS, W.A. – Gold / Nickel

**KILLALOE JV**– EL63/1018, 1199 and PL 63/1672; Matsa Resources Limited  
(Matsa) 80%; Cullen 20% free carried interest

The corridor of gold mineralisation which includes the gold discoveries of S2R Limited at Baloo, Monsoon and Nanook (ASX : S2R , 25 July 2016) within S2R’s Polar Bear project, is interpreted to extend to the SE into the Killaloe project area, and over a distance of ~20km. The Polar Bear gold corridor within the Killaloe JV ground may be indicated by extensive soil gold anomalism and gold intersections in previous drilling including 2m @ 6 g/t in hole KRC023 at the Cashel prospect.

Matsa (Manager) has previously reported the results of Induced Polarisation (IP) surveys carried out at Windy Hill and Duke Prospects (ASX: MAT 27 June and 5 July, 2016) which identified priority targets.

Field activities during the quarter comprised:

- A trial Audio-frequency Magnetotelluric (AMT) - Gradient array IP survey carried out on “Duke IP03” and “Windy Hill IP02” IP targets. The geophysical report for this trial survey will be available in the next reporting period; and,
- A programme of RC drilling within E63/1018 at Duke, Windy Hill and Cashel prospects - 13 RC holes for 1841m. (Weakly anomalous gold values were intersected from Duke and Windy Hill, with a peak Au value of 0.34 ppm in a 4m composite sample - see ASX announcement by Matsa – ASX:MAT 31-10-2016 for details of this drilling programme).

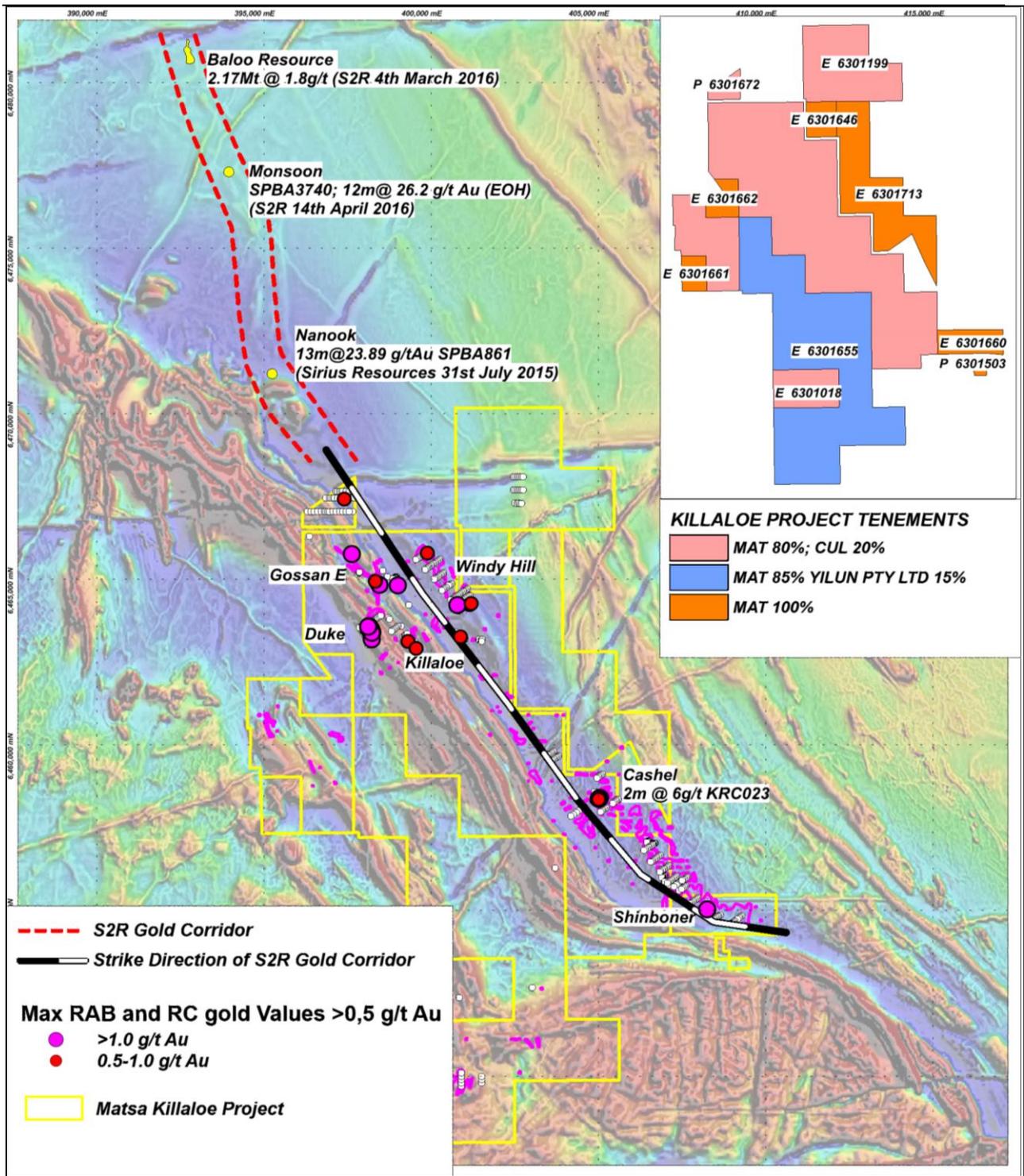


Figure from Matsa’s ASX announcement of 21 April 2016

ATTRIBUTION: Competent Person Statement (Killaloe JV)

**Exploration results (Killaloe JV)**

The information in this report that relates to Exploration results, is based on information compiled by David Fielding, who is a Fellow of the Australasian Institute of Mining and Metallurgy. David Fielding is a full time employee of Matsa Resources Limited. David Fielding has sufficient experience which is relevant to the style of mineralisation and the type of ore deposit under consideration and the activity which he is undertaking 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’. David Fielding consents to the inclusion in the report of the matters based on his information in the form and context in which it appears.

## CORPORATE

### SHARE CAPITAL INFORMATION

The issued capital of the company at the end of the Quarter is as follows:

- 1,901,560,131 fully paid ordinary shares
- 6m unlisted options expiring 31 May 2017
- 20m unlisted options expiring 30 November 2017

The substantial shareholders of Cullen are:

- Perth Capital, Wythenshawe Pty Ltd and Associates – 22.19%, and
- Baosteel together with Aurizon – 5.38%

Cash at the end of the quarter is **\$0.29M**.

**Dr Chris Ringrose, Managing Director**

31 October 2016

**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.

**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, and Matsa), 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.

**SCHEDULE OF TENEMENTS (as at 30 September 2016)**

REGION	TENEMENTS	TENEMENT APPLICATIONS	CULLEN INTEREST	COMMENTS
<b>WESTERN AUSTRALIA</b>				
<b>ASHBURTON / PILBARA</b>				
Mt Stuart JV	E08/1135, E08/1330, E08/1341, E08/1292 ML08/481, ML08/482		30 - 100%	API has earned 70% of iron ore rights; Cullen 100% other mineral rights
Wyloo North		ELA 47/3342		
Paraburdoo JV	E52/1667		100%	Fortescue can earn up to 80% of iron ore rights; Cullen 100% other mineral rights
North Pilbara		ELA 45/4626, ELA 45/4682		
<b>NE GOLDFIELDS</b>				
Gunbarrel	E53/1299,1300 +/- * E53/1635	ELA 53/1892,1893	100%	+2.5% NPI Royalty to Pegasus on Cullen's interest (parts of E1299); *1.5% NSR Royalty to Aurora (other parts of E1299 and parts of 1300)
Irwin Well	E53/1637		100%	
Irwin Bore	E53/1209		100%	
<b>MURCHISON, Cue</b>	E20/714		100%	
<b>RAVENSTHORPE</b>				
	E74/575			
<b>YINNETHARRA</b>				
		ELA 09/2179		
<b>WONGAN HILLS</b>				
		ELA 70/4882		
<b>GREENBUSHES</b>				
	E47/4803	ELA 70/4802		
<b>EASTERN GOLDFIELDS</b>				
Killaloe	E63/1018, E63/1199, P63/1672		20%	Matsa Resources Limited 80%
<b>FORRESTANIA</b>				
Forrestania JV	M77/544		20%	Hannans Reward Ltd 80% Gold rights only
<b>NEW SOUTH WALES</b>				
Minter	EL6572		100%	
<b>FINLAND</b>				
	Rita ,Kaatiala and Outu		100% - Reservation Notifications	
<b>TENEMENTS RELINQUISHED and APPLICATIONS WITHDRAWN DURING THE QUARTER – 100%</b>				

**References:**

Cornelius, M., Robertson, I.D.M., Cornelius, A.J., and Morris, P.A., 2007. Laterite geochemical database for the western Yilgarn Craton, Western Australia: Western Australia Geological Survey, Record 2007/9, 44p.

Smith, R.E., and Perdrix, J.L., 1983. Pisolitic laterite geochemistry at Golden Grove, Western Australia. Journal of Geochemical Exploration, 22, 193-216.

\*Timo Ahtola (ed.), Janne Kuusela, Asko Kapyaho and Olavi Kontoniemi, Geological Survey of Finland, Report of Investigation, 220, 2015: "Overview of lithium pegmatite exploration in the Kaustinen area in 2003-2012").