



magnetic resources<sup>NL</sup>

## QUARTERLY REPORT for the Quarter Ended 30 September 2017

**Magnetic Resources NL**  
ABN 34 121 370 232

**ASX Codes:** MAU and MAUCA

Level 1  
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PO Box 1388  
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**Issued Capital:**  
**Shares - Quoted:**

146,817,355 ordinary shares.  
20,418,862 partly paid shares (\$0.20  
unpaid).

**Options – Unquoted**

- 4,000,000 options exercisable  
at \$0.17 on or by 31 December 2017  
- 150,000 options exercisable at  
\$0.18 on or by 31 December 2017

**Cash:** \$0.98m

**Directors:**

**George Sakalidis**  
Managing Director

**Eric Lim**  
Non-Executive Chairman

**Julien Sanderson**  
Non-Executive Director

**Company Secretary**  
Ben Donovan

## HIGHLIGHTS

Shallow-dipping gold mineralized shear zone at **HN3** is open both to the north and south and a 10-hole drilling programme was completed testing a 150m-wide zone over a 500m length. Results are pending for this programme. Previous drilling show 52 intercepts with more than 0.5g/t Au and 18 intercepts with more than 1g/t Au, generally being 1 to 4m thick.

At the **HN5 two large 500m long** multielement anomalies have been delineated. A Follow up 70-sample soil geochemistry programme is planned to close off these anomalous gold geochemical anomalies prior to RC drilling.

Rock chip sampling at **HN4** has shown **highly anomalous values ranging from 0.07 to 51.7g/t Au** within two cherty ironstone (BIF) horizons which are 750m long, with evidence of old prospecting pits along its length. Eight of the 17 samples had over 1g/t Au. A shallow detailed 9-hole RC programme (175m) is planned to test these highly anomalous ironstones.

At **HN6** a 1.5km-long arcuate magnetic trend with some old gold diggings has anomalous gold in the range 0.06 to 0.70g/t Au recorded in amphibolite. A programme of soil sampling has delineated a **500m long geochemical anomaly**. 3 RC holes (170m) are planned to test these Targets.

At the **Mertondale and Christmas Well Projects** shallow RAB drilling below the hardpan cover has identified **eight multielement targets totalling 6.8km** containing gold and multielement anomalies. A further 395 infill shallow RAB programmes have been completed. RC drill testing is currently being planned over the best anomalous sites.

**Large nuggets and finer grained gold in extensive laterite** (22km<sup>2</sup>) is being followed up in the northern and eastern parts of Mertondale and nuggets within Hawks Nest tenement with two tribute agreements signed. Dozing and detect is being carried out in October-November. 23 RC holes totalling 1380m are also planned in the Mertondale large Nugget area.

# Gold Projects Summaries

## Hawks Nest E38/3127

Magnetic has completed a programme of RC drilling (13 holes for 1,900m) and shallow vertical RAB drilling (150 holes, 1,581m) on geophysical and geological targets at its Hawks Nest exploration licence (E38/3127) approximately 15km SW of Laverton. The target areas and drilling locations are summarised in Figure 1. A new 70 soil sampling programme is being planned to cover strong geochemical zones found previously at HN5. 10 RC holes are completed at target HN3 to extend the mineralised zone to the north and south to 500m. A small RC programme is being planned at HN4, HN5 and HN6.

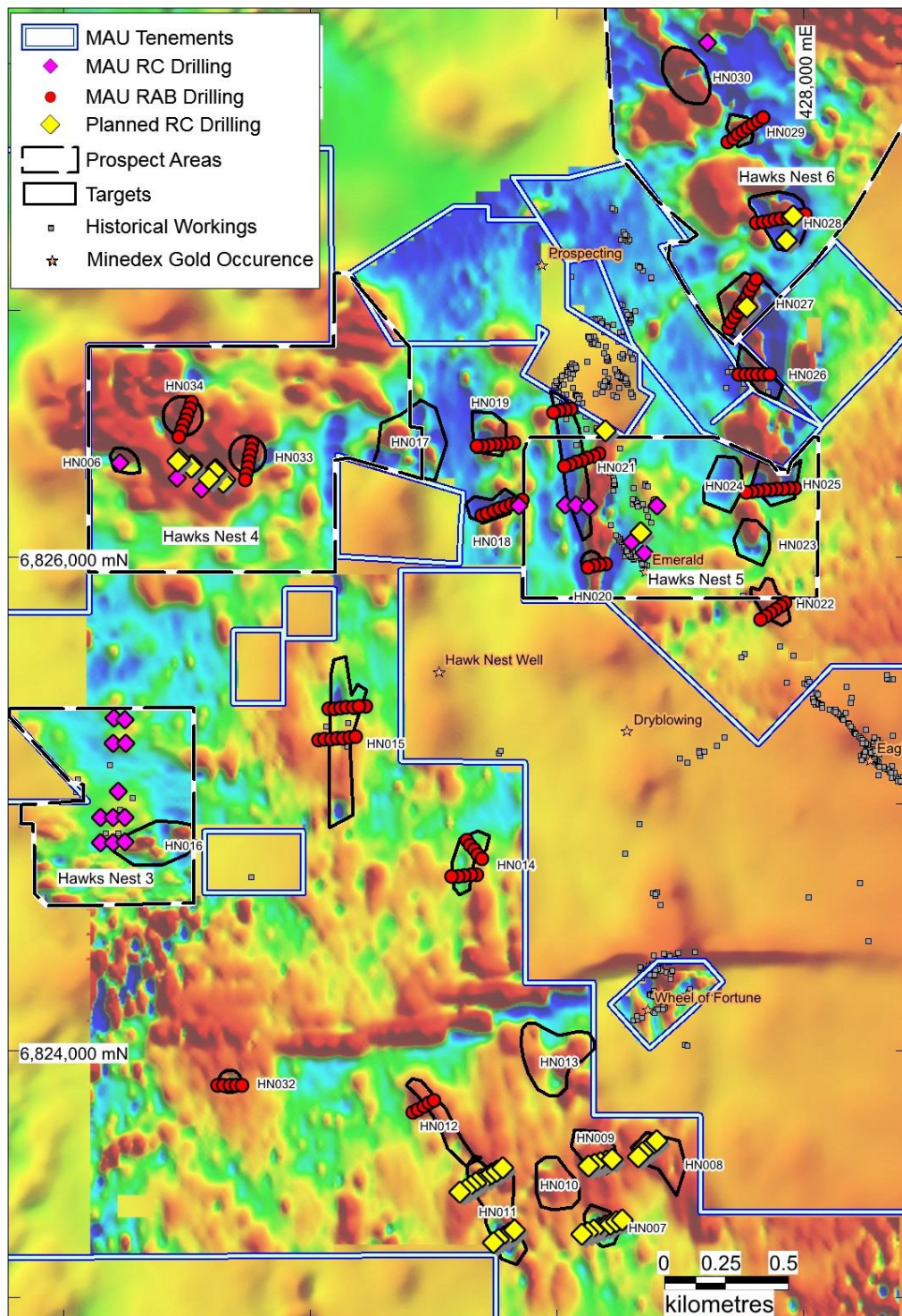


Figure 1. Hawks Nest E38/3127 Ground magnetics and Prospects HN3 to HN6

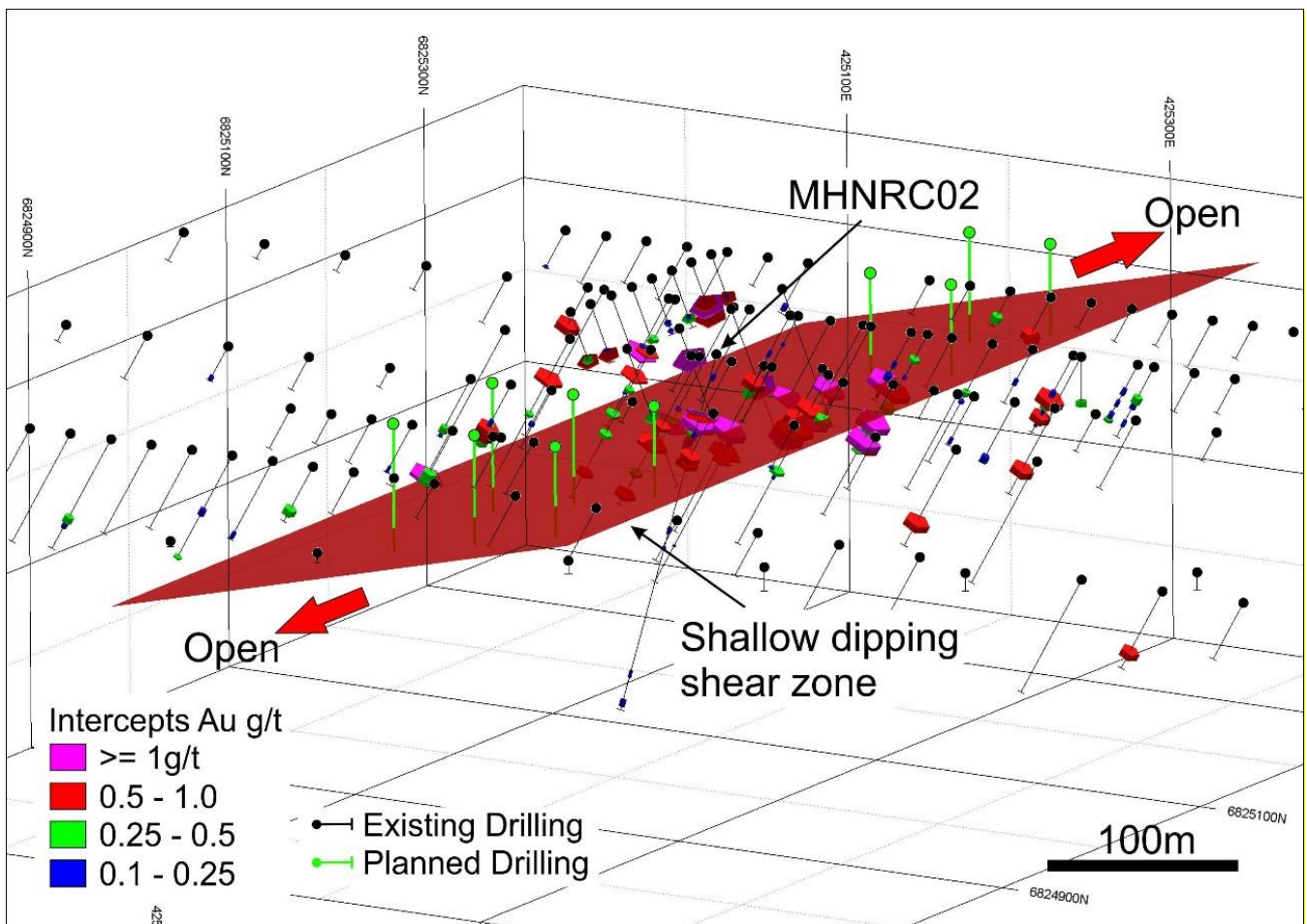
## Hawks Nest 3

In the previous quarter MHNRC02 intersected a sequence of meta-sediment, carbonate rock and porphyry. Intersections include 3m @ 0.88g/t Au from 33m and anomalous 4m intervals with more than 0.1g/t Au.

3D modelling of these results with the historical drilling indicates a shallow (20 to 30m depth) N-trending 150m-wide mineralized shear zone dipping shallowly (10°-20°) to the west over a 150m strike length. Historical drilling to the north and south appears to have been far too shallow to intersect this interpreted mineralized position.

There are 52 intercepts with more than 0.5g/t Au and 18 intercepts with more than 1g/t Au, generally being 1 to 4m thick with the highest value of 1m @ 13g/t Au from 22m in hole HNR007.

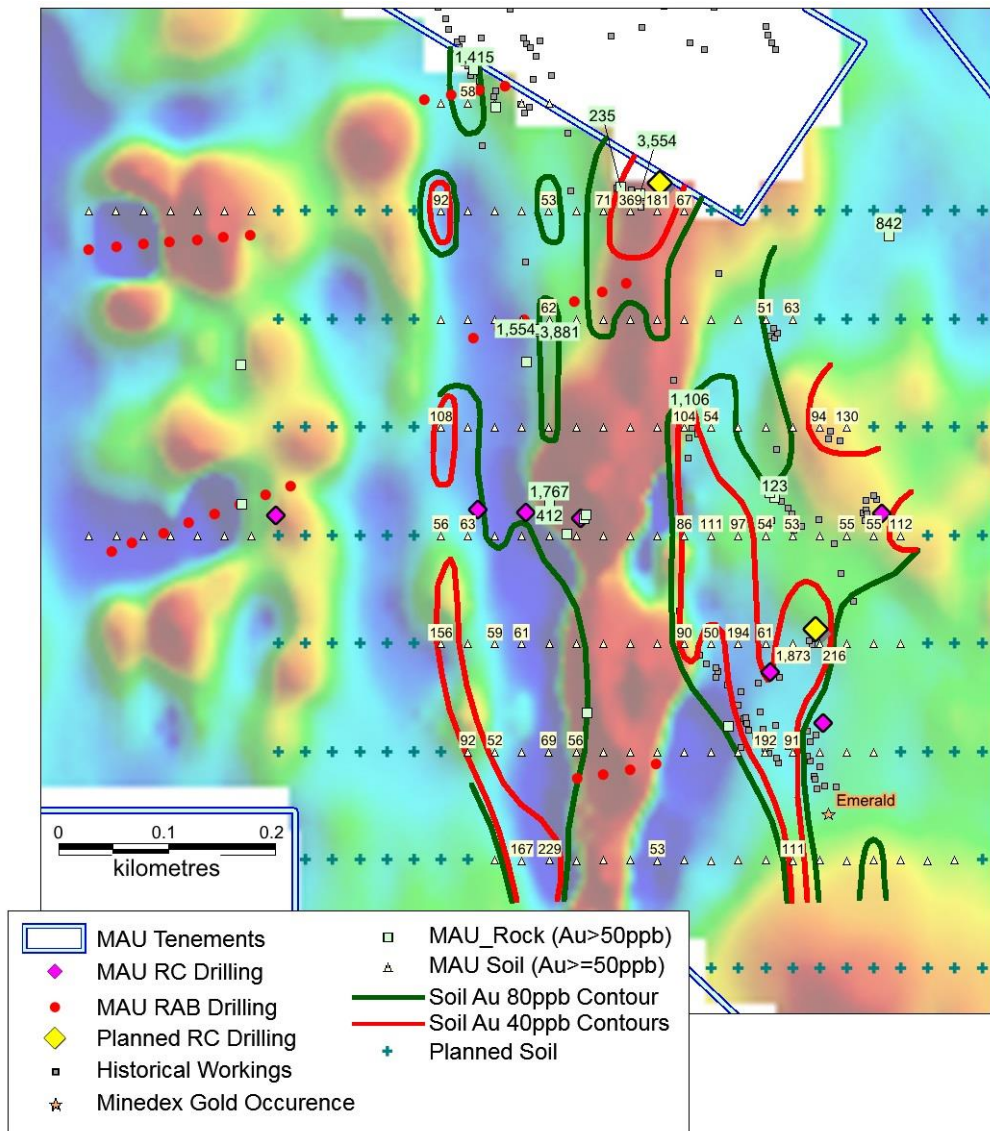
**A 10-hole RC drilling has been completed to test for extensions to the mineralisation over a 500m strike length shown in green in Figure 2. Results are pending.**



**Figure 2. Hawks Nest E38/3127 HN3 Perspective plot of historical drilling showing shallow shear zone and gold mineralization being open to the north and south and completed 10-hole RC programme.**

## Hawks Nest 5

This area comprises the Emerald workings, a series of NW-trending gold diggings over a 200m strike length which intersect and sinistrally displace a N-S trending magnetic anomaly flanked by a pronounced linear magnetic low about 750m in length. Rock sampling of old gold diggings along this 750m zone has returned values ranging from 0.41 to 3.88 g/t Au (Figure 3). Some of these gold values occur in a magnetite-bearing amphibolite interpreted to underlie adjacent porphyry outcrops, which is thought to be the cause of the linear magnetic high.



**Figure 3. Hawks Nest HN5 ground magnetics with 2 soil geochemical anomalies and planned extension sampling current RAB and RC drilling and 750m target zone and soil sampling**

Two 500m-long gold and multi-element geochemical anomalies are associated with a 300m zone of quartz veins in porphyry and the Emerald workings (Figure 4). A further 70 soil samples are being planned to close off both anomalous Au soil targets outlined above.

A programme of at least 2 shallow RC holes (130m) are planned to test historical workings with an anomalous rock sample of 3.55g/t Au and an anomalous soil anomaly of 1873ppb and 216ppb (427348mE, 6826118mN)

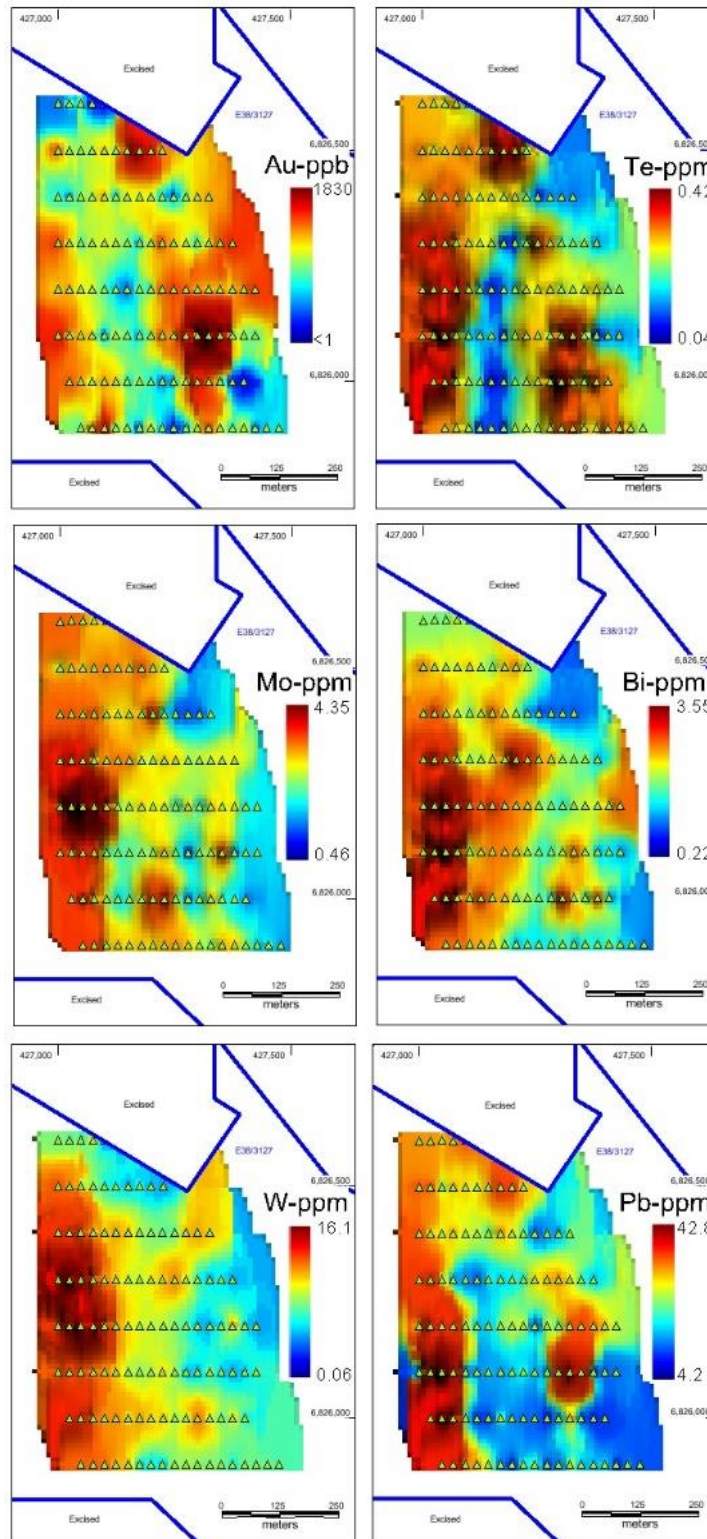


Figure 4. Hawks Nest E38/3127 HN5 multi-element zones

### Hawks Nest 5 Gold Nuggets

Encouraging gold nuggets and specimens (Figure 5) have been recovered north of Hawks Nest 5 area that has been soil sampled, RAB and RC drilled. A tribute agreement has been signed with Brian Roberts, a Laverton prospector. Magnetic will receive 15% of the gross sale value of all minerals including gold extracted, mined, produced or won from the tenement.

Some shallow RAB drilling will be carried out to test this gold nugget area prior to any deeper AC or RC drilling.



Figure 5. Hawks Nest E38/3127 HN5 gold nuggets

## Hawks Nest 4

Geological mapping has identified at least two cherty ironstone (BIF) horizons, one of which has been traced intermittently for about 750m with evidence of old prospecting pits along its length (Figure 6). Rock chip sampling has shown **highly anomalous values ranging from 0.07 to 51.7g/t Au. Eight of the 17 samples had over 1g/t Au** (Figure 4). Nine holes totalling 175m is designed to test this near surface very anomalous cherty ironstones.

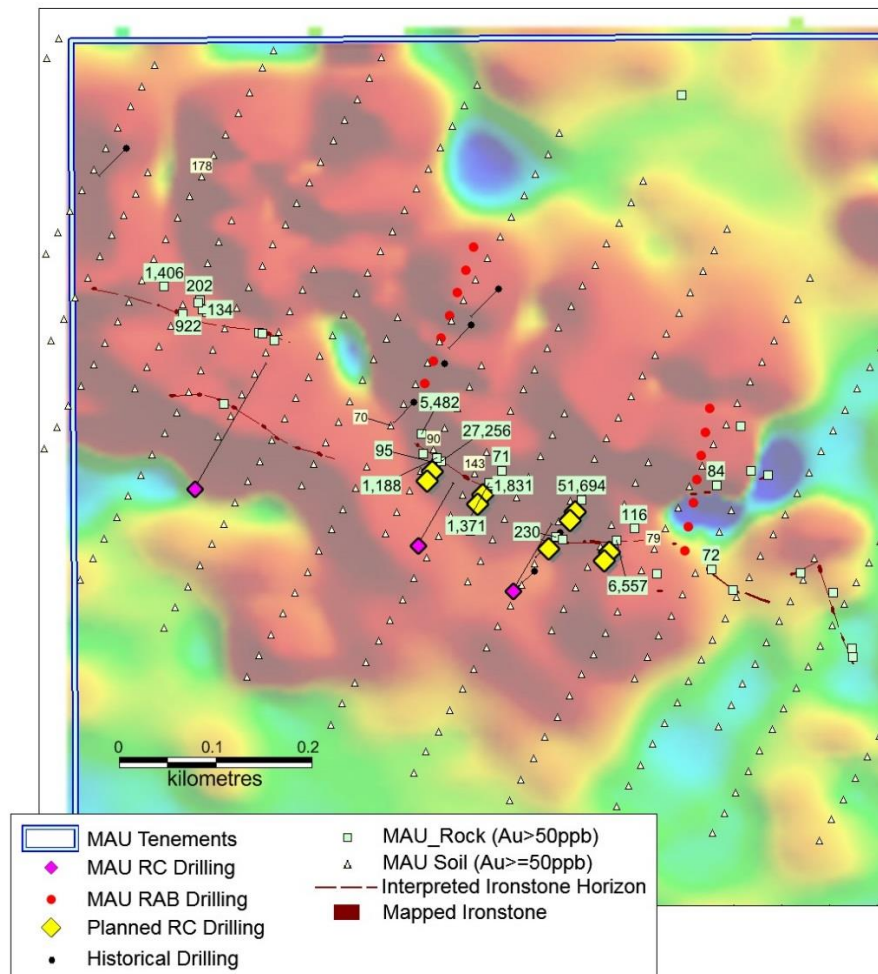


Figure 6. HN4 ground magnetics showing highly anomalous rock chip samples within a quartz ironstone.

## Hawks Nest 6

This prospect comprises a 1.5km-long arcuate magnetic trend with some old gold diggings. Wide-spaced shallow geochemical traverses were carried out over selected magnetic targets with anomalous gold in the range 0.06 to 0.70g/t Au recorded in amphibolite in several locations (Figure 7). The RAB drilling indicates a shallow in situ regolith suitable for soil sampling.

A programme of soil sampling over the 1.5km trend has been completed with a new **500m anomalous geochemical zone defined**. Two RC holes totalling 120m are testing anomalous soil anomalies ranging between 56 to 91ppb associated with a complex strong remanent low (427940mE, 6827300mN). A third 50m RC hole will test an anomalous shallow RAB intersection of 4m at 0.7g/t (427777mE, 6827030mN).

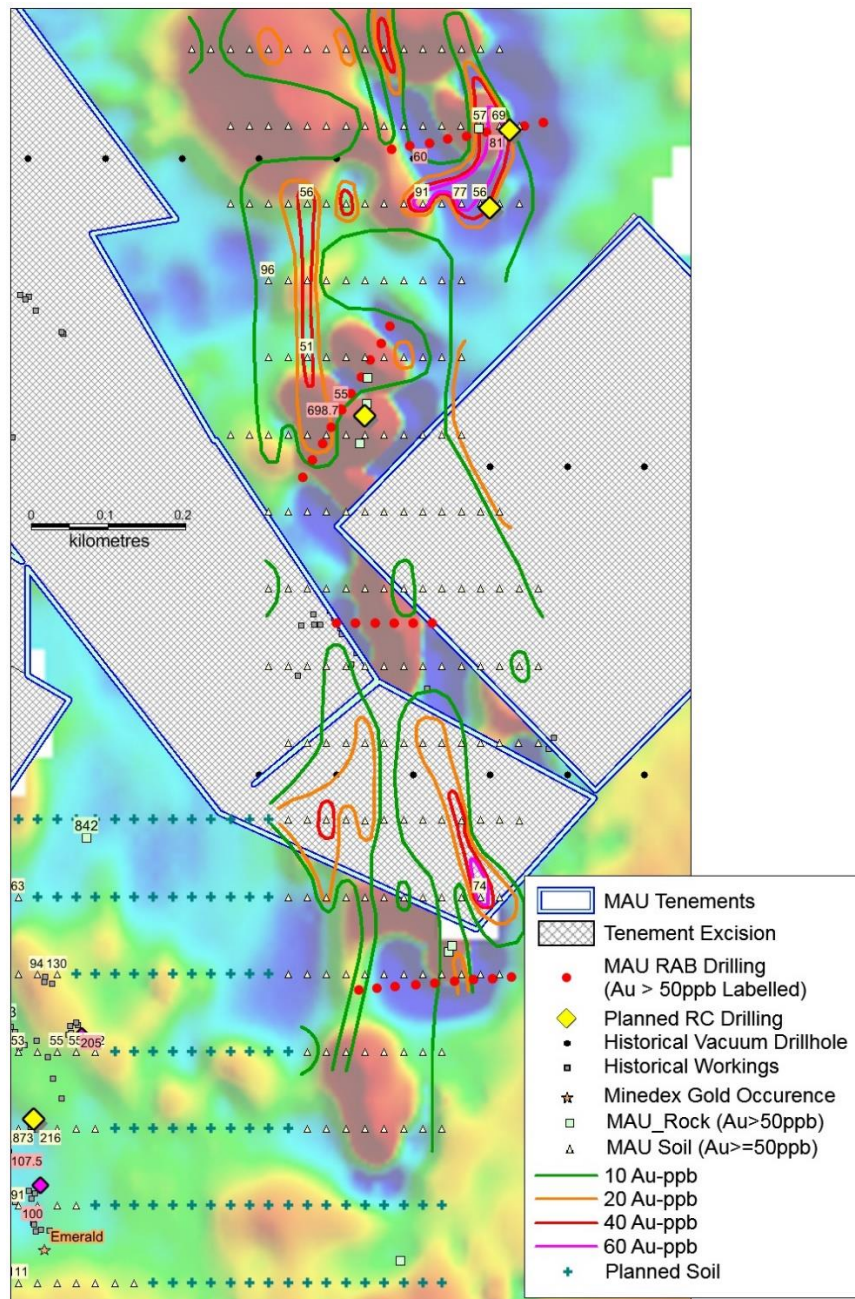


Figure 7. Hawks Nest E38/3127 HN6 target area on ground magnetics current RAB and RC drilling and planned soil programme

## Other Hawks Nest Targets

Results were generally low except for anomalous gold values in MHNRB097 (53ppb Au) and MHNRB099 (214ppb Au) at target HN015; and HNRB133 (88ppb Au) at target HN014. These results are being followed up in the field.

## Mt Jumbo East

11km<sup>2</sup> of new tenement applications are called Mt Jumbo East (Figure 9). There are at least 3 prospects within this application.

Significant **shallow** historical drill intersections at the No Name prospect include **6m @ 5.8g/t Au from 10m in drill-hole MJC09, including 3m @ 10.9g/t Au from 13m** (Figure 10). Very anomalous surface samples from 1.8g/t to 3.2g/t at the Horseshoe Pass prospect.

5km North of Wallaby and 10km West of Granny Smith. Structurally complex BIF disrupted by NE faults with some interpreted intrusions and WMC suggesting NW fault intersections of the BIF are important for gold localization.

Work completed includes historical geochemical and drilling compilation and detailed ground magnetics over the BIFs and intrusions. **A 304-lag sampling programme is planned over at least 6 targets is being carried out. Follow up drilling is expected from these mainly BIF style targets.**

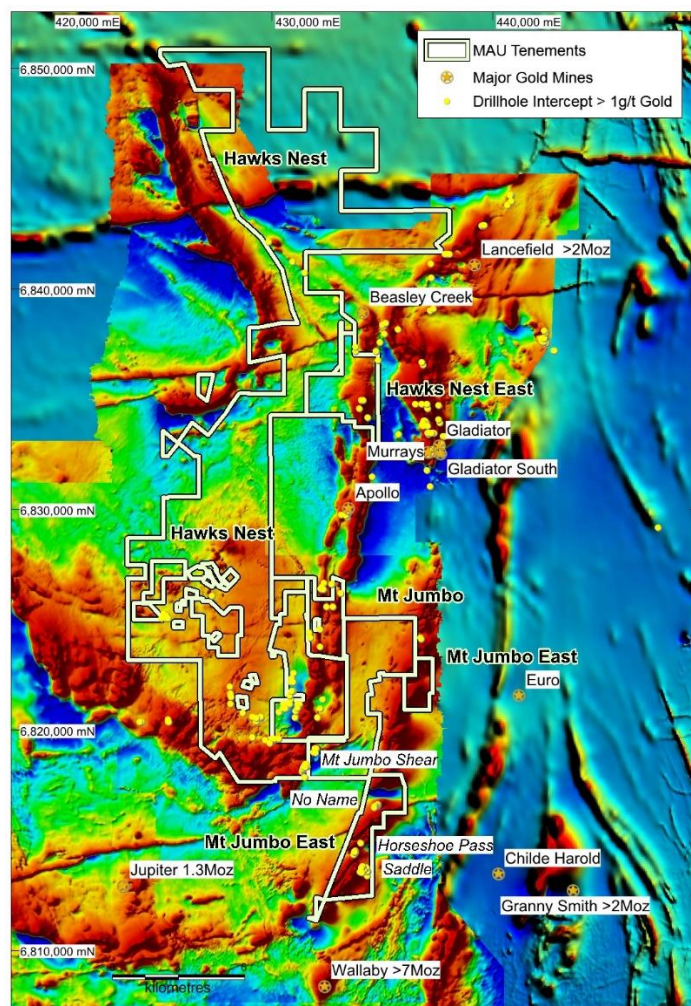


Figure 9. Mt Jumbo East tenements



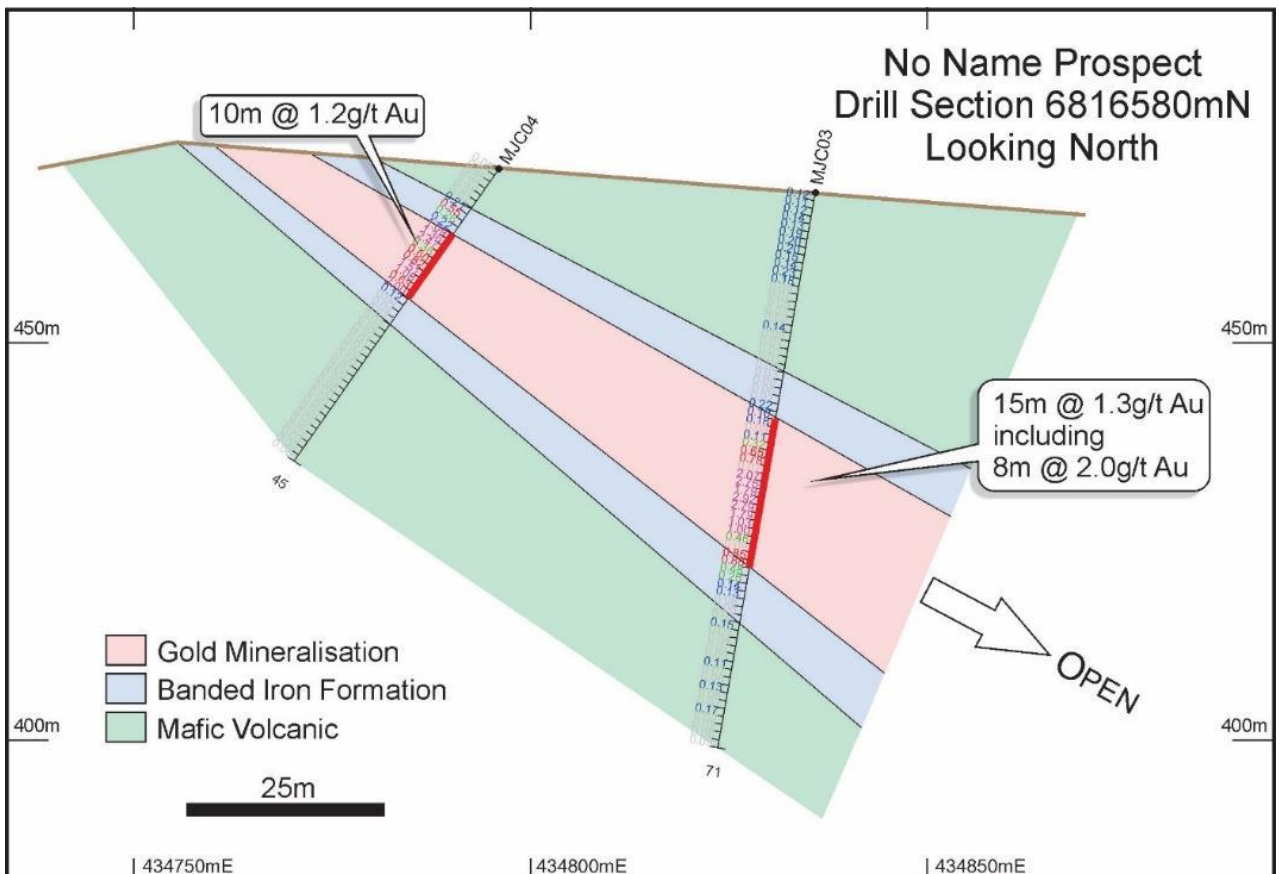
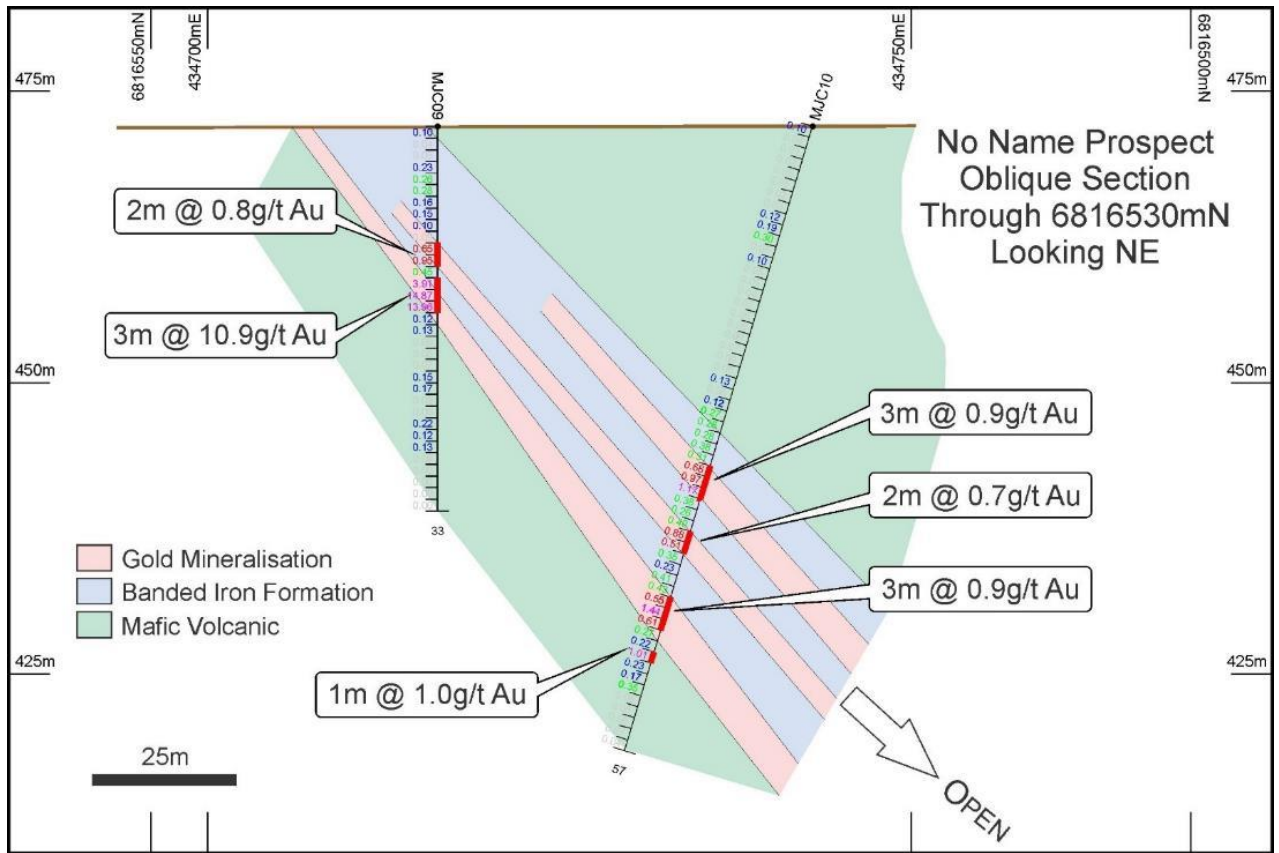


Figure 10. Mt Jumbo East No Name prospect drilling

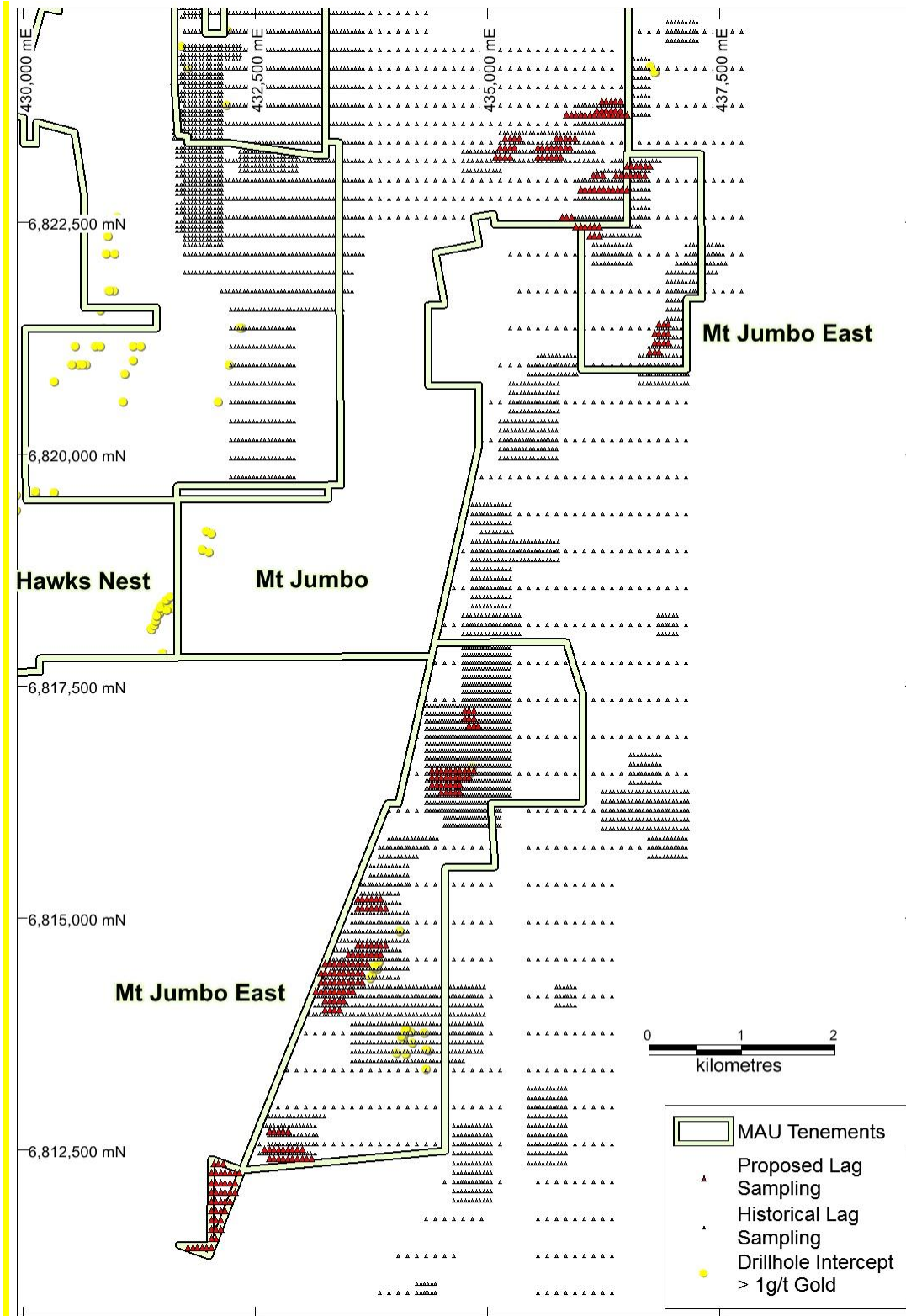


Figure 11. Mt Jumbo - Mt Jumbo East Proposed Lag Sampling

## Mertondale E37/1258

Magnetic Resources has 180km<sup>2</sup> of tenements in the Mertondale region (Figure 11), which has numerous dilation targets at changes in orientation of the Mertondale shear and parallel shears. **About 6.8km of multielement geochemical targets (Table 1)** have been delineated after below hardpan shallow RAB drilling has been completed approximately 20km NW of the Cardinia Gold Project (193,000oz) and only 5km west of the Mertondale Deposit (395,000oz). Previous soil geochemical work was too shallow to be effective. Three intrusive targets like the Wallaby deposit signature are to be tested as well.

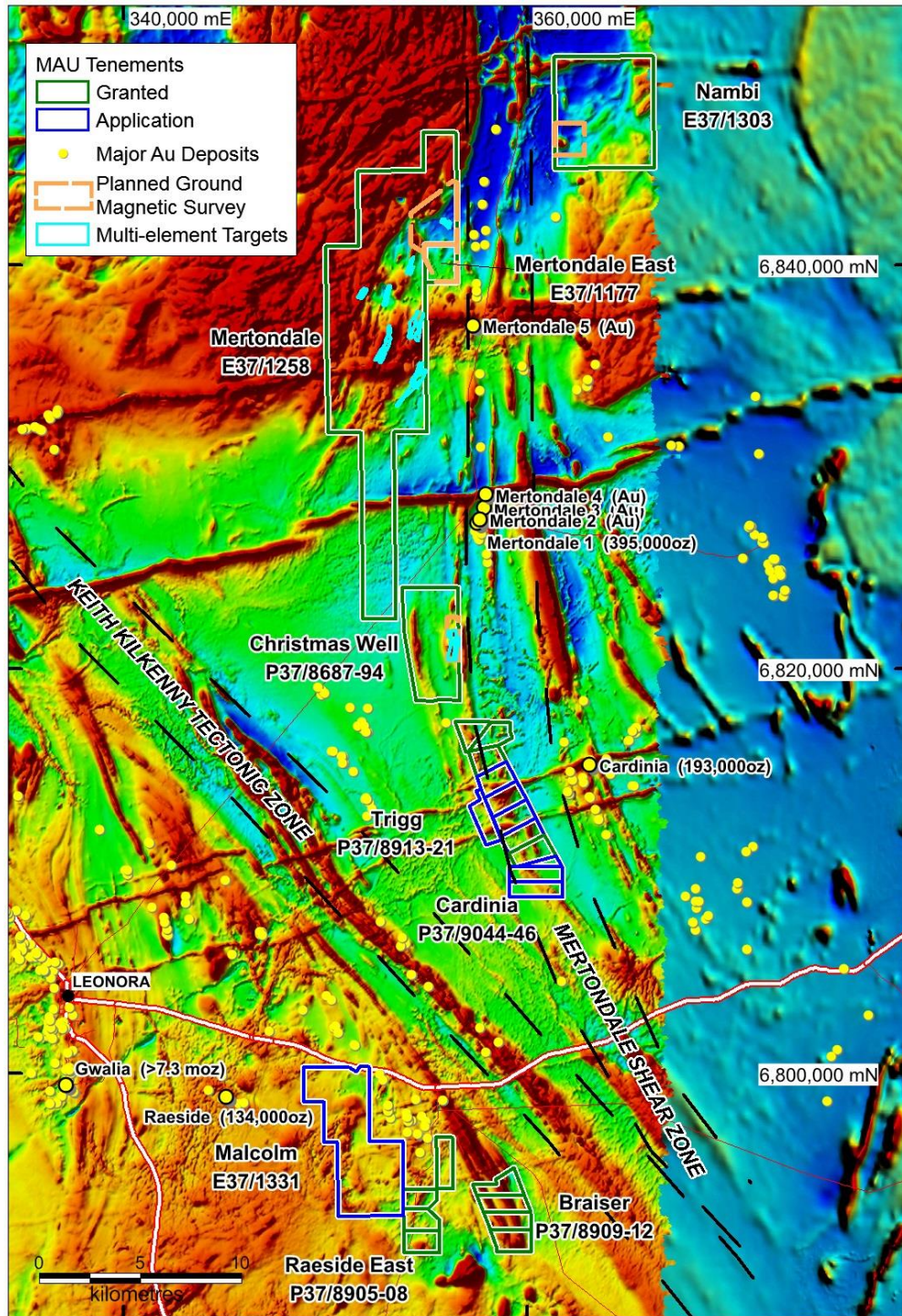


Figure 11 Mertondale, Mertondale East, Christmas Well, Trigg, Raeside, Raeside East, Braiser and Nambi Projects. Showing major shear zones, targets and Gold deposits and historic workings.

Table 1. Mertondale Shallow Geochem RAB – Anomalous Results (Au >= 20ppb)

Hole_Id	Easting MGaz51	Northing MGaz51	From metres	To metres	Au ppb
MRT279	355790	6842162	0	4	22.5
MRT281	355880	6842110	4	6	38.0
MRT369	353143	6836955	1	2	81.5
MRT372	353295	6836948	1	2	25.0
MRT382	353320	6836372	0	1	21.5
MRT387	353062	6836149	1	2	44.5
MRT390	353218	6836148	2	3	23.0
MRT398	353024	6835878	1	2	59.0
MRT407	352869	6835654	2	3	27.0
MRT413	352496	6835351	2	3	36.5
MRT465	354341	6836849	1	2	31.0
MRT471	354568	6836560	4	5	27.5
MRT478	354669	6836310	3	4	132.0
MRT479	354634	6836325	2	3	71.0
MRT483	354445	6836403	2	3	23.5
MRT529	354407	6834539	3	4	28.0
MRT553	354418	6834076	3	4	36.0

### Mertondale Large Gold Nuggets

Two adjacent RAB drill lines (43 drillholes) have been now completed covering aeromagnetic targets MRT24 and 25 (Figure 12). The nugget area has been soil sampled (115 samples) with has identified a **300m-long** +5ppb gold anomaly (peak 17ppb compared to a background of 2ppb), extending south from the nugget occurrences, open to the south. A 23 RC hole programme (1380m) is planned within the coarse Nugget area.

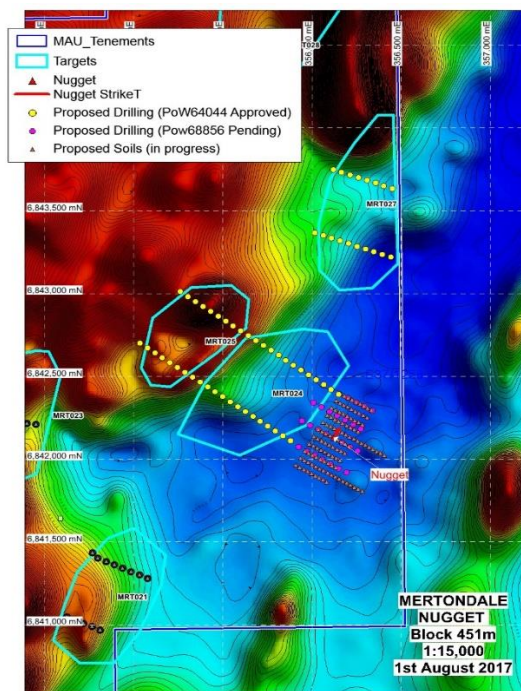


Figure 12 Mertondale nugget discovery

More than 25oz of large gold nuggets are estimated to have been recovered. These nuggets are very large with one nugget being 5cm long by 4cm in size and estimated to contain more than 10oz of gold (Figure 13).

A Tribute agreement (15% gross on all gold) has been signed with the pastoralist and dozing and detecting is expected to commence in October 2017.



**Figure 13 Mertondale gold nuggets**

### **Finer Grained Gold-Laterite Targets**

Prospectors active in the area also report finer grained gold in the nugget discovery area because of sampling, dollying (hand crushing) and panning the laterite, as shown in Figure 14.

The prospectors report that a 1kg sample of laterite within a hand dug pit (Figure 14) contains visible gold as shown in large gold tail from panning.

Extensive laterite cover has been mapped in the area. Bearing in mind the reported gold finds occur in the laterite cover, Magnetic is planning systematic sampling of the laterite over a large 22km<sup>2</sup> area with 347 laterite geochemical samples to be collected and analysed.



**Figure 14 Mertondale fine gold from panning**

The Mertondale East tenement (E37/1177) purchased from a Leonora prospector covers the direct southern extension of the large gold nugget patch where over 25ozs have been found. A large adjacent historical patch had reports of similar large specimens.

These large nuggets and the nuggets (Figure 15) found within the adjacent Mertondale tenement (E37/1258) are within an extensive surficial laterite which is part of a topographic high. Already, new occurrences of 4oz and 1oz have been found on the tenement and the laterite sampling has been extended to cover these areas (Figure 16).

This new tenement and the new occurrences have extended the prospective laterite from 3.3km<sup>2</sup> to greater than 22km<sup>2</sup>.

The drainage trends SW from the Mertondale coarse nugget area into the new tenement and both palaeo and current drainages are prospective for coarse nuggets and appear to link into the current work site (Figure 17).



Figure 15 Gold nuggets from E37/1177 Mertondale East

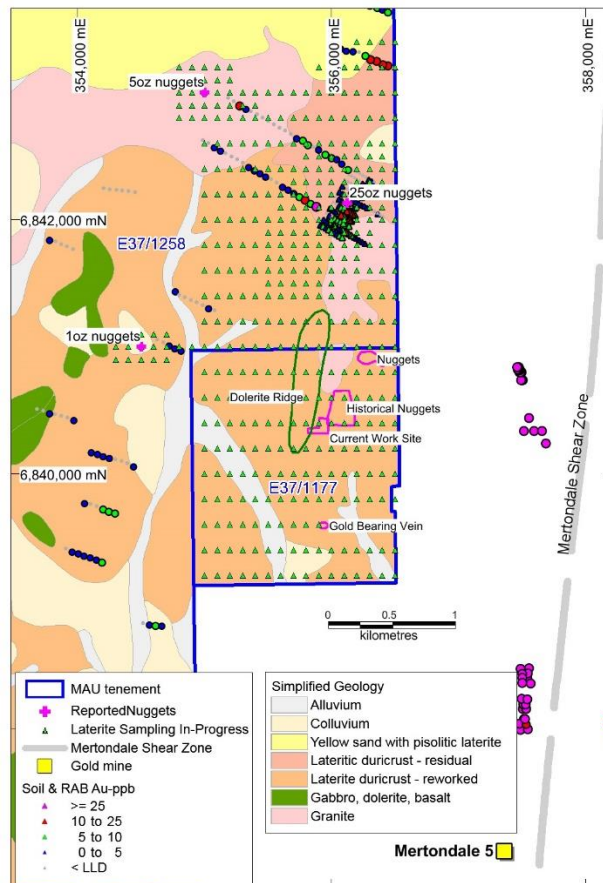


Figure 16 E37/1177 Mertondale East Laterite sampling

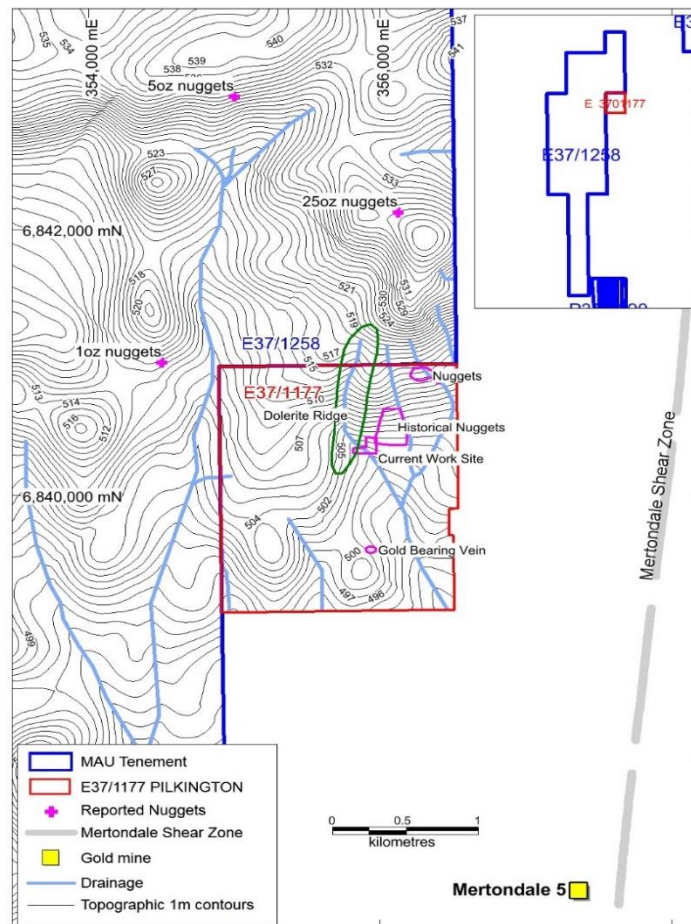


Figure 17 E37/1177 Mertondale East Topography and Drainage patterns

### Christmas Well P37/8687-94

Shallow RAB (<4m) below hardpan geochemical sampling have been carried out at the Christmas Well project (P37/8687–8694) 10km NW of Kin Mining’s Cardinia project.

**A significant 800m-long N–S anomalous gold zone, which is open to the north and south has been defined with values up to 194ppb and 39.7g/t (39,730ppb) centred on the historical Triumvirate workings (Figure 18).** Historically similar high grades were mined with 1500g of gold being recovered from 50 tonnes of ore extending over 110m of workings, striking SSE in a vertically dipping quartz lode hosted by meta-basalts near the contact with felsic schists (WAMEX report A27915).

This N–S structural zone is parallel and close to the Mertondale shear zone where many significant mines have been mined including Mertondale 1,2,3,4,5 (395,000oz) and the recent Kin Mining Discovery at Cardinia (>193,000oz). Magnetic Resources is encouraged by these early geochemical results and RC/AC holes are planned to test the best parts of the 800m long geochemical anomaly.



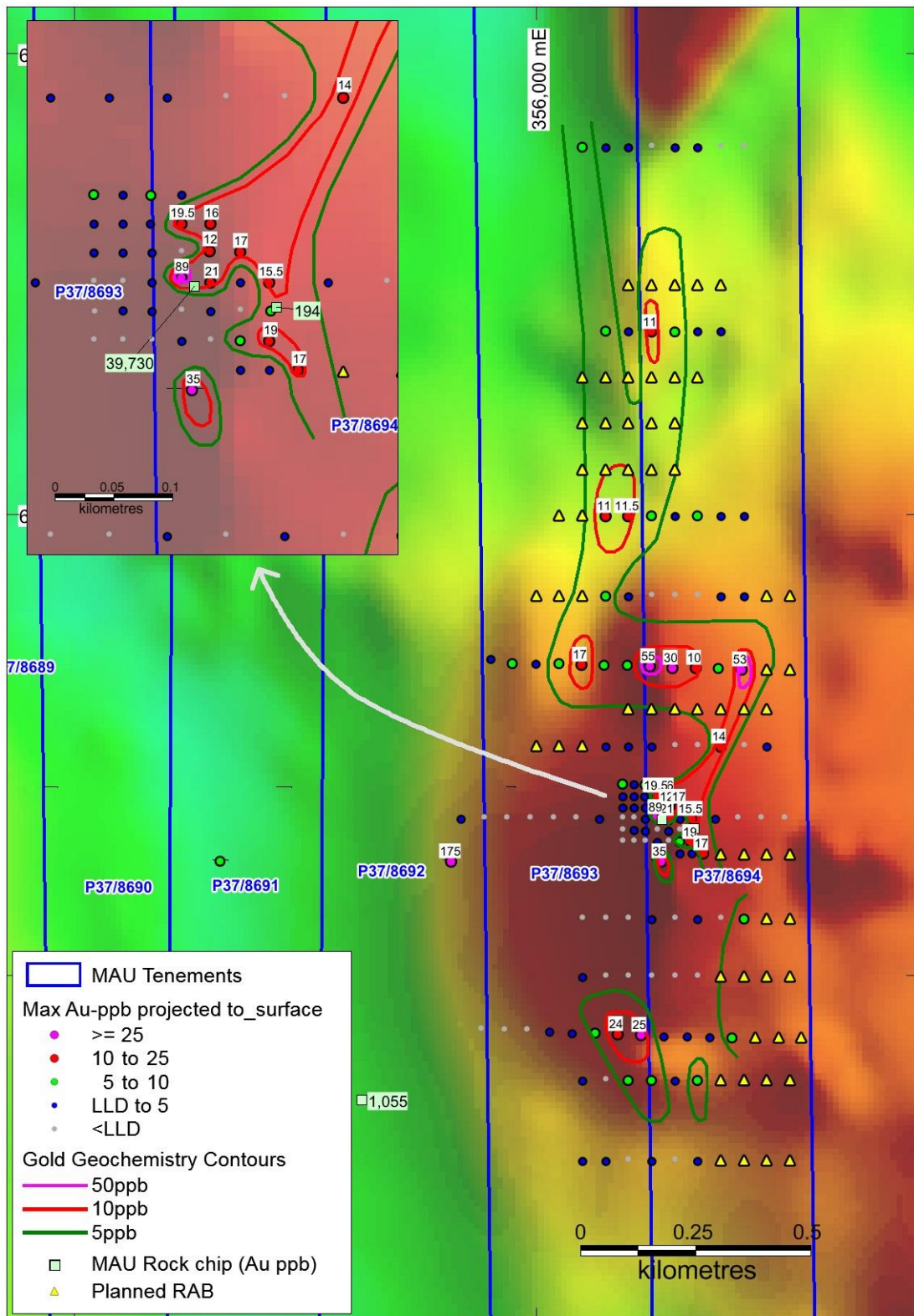


Figure 18. Christmas Well Shallow RAB Results, Aeromagnetics Image

## **Other Projects**

The Company is still reviewing other projects and tenements for acquisition and development within the Leonora-Laverton region.

## **Iron Ore**

Magnetic Resources still maintains an interest in potentially economic iron ore deposits and mainly focussed on Mt Joy and Kauring.

A Purchase agreement has been signed with Northam Iron Pty Ltd, including a 3-month due diligence period prior to a \$500,000 payment. The agreement includes sliding scale royalty payments starting at \$0.25/t for a sale price of \$80.00/t or less, and thereafter, for every increase in the sale price of \$10.00/t the royalty rate will increase by \$0.25/t.

## **Corporate**

On 29 August 2017, the Company announced it had received irrevocable commitments for \$757,050 via the issue of new shares at \$0.115, being an 8.4% premium to the 30-day average closing price.

On 7 September 2017, the Company announced it issued 5,278,696 new shares to unrelated parties from the 29 August 2017 placement, with a further 1,304,348 new shares to be issued to related parties subject to shareholder approval.

## Tenement Schedule:

### Tenement Schedule in accordance with ASX Listing Rule 5.3.3

Tenements held at the end of the Quarter

Location	Tenement	Nature of Interest	Project	Equity (%) held at start of Quarter	Equity (%) held at end of Quarter
WA	E70/3536	Granted	JUBUK	100%	100%
WA	E70/4243	Granted	RAGGED ROCK	100%	100%
WA	E70/4508	Granted	KAURING	100%	100%
WA	E70/4528	Granted	KAURING	100%	100%
WA	E70/4692	Granted	MT JOY	100%	100%
WA	E38/3100	Granted	MT JUMBO	100%	100%
WA	P39/5594	Granted	KOWTAH	100%	100%
WA	P39/5595	Granted	KOWTAH	100%	100%
WA	P39/5596	Granted	KOWTAH	100%	100%
WA	P39/5597	Granted	KOWTAH	100%	100%
WA	P38/4201	Granted	MT JUMBO	100%	100%
WA	E37/1258	Granted	MERTONDALE	100%	100%
WA	P37/8687	Granted	CHRISTMAS WELL	100%	100%
WA	P37/8688	Granted	CHRISTMAS WELL	100%	100%
WA	P37/8689	Granted	CHRISTMAS WELL	100%	100%
WA	P37/8690	Granted	CHRISTMAS WELL	100%	100%
WA	P37/8691	Granted	CHRISTMAS WELL	100%	100%
WA	P37/8692	Granted	CHRISTMAS WELL	100%	100%
WA	P37/8693	Granted	CHRISTMAS WELL	100%	100%
WA	P37/8694	Granted	CHRISTMAS WELL	100%	100%
WA	P39/5617	Granted	KOWTAH EAST	100%	100%
WA	E38/3127	Granted	HAWKS NEST	100%	100%
WA	P38/4317	Granted	MT JUMBO EAST	100%	100%
WA	P38/4318	Granted	MT JUMBO EAST	100%	100%
WA	P38/4319	Granted	MT JUMBO EAST	100%	100%
WA	P38/4320	Granted	MT JUMBO EAST	100%	100%
WA	P38/4321	Granted	MT JUMBO EAST	100%	100%
WA	P38/4322	Granted	MT JUMBO EAST	100%	100%
WA	P38/4323	Granted	MT JUMBO EAST	100%	100%
WA	P38/4324	Granted	MT JUMBO EAST	100%	100%
WA	E38/3205	Application	HAWKS NEST EAST	100%	100% Pending Grant
WA	E38/3209	Granted	MT AJAX	100%	100%
WA	E37/1303	Granted	NAMBI	100%	100%
WA	P37/8905	Granted	RAESIDE EAST	100%	100%
WA	P37/8906	Granted	RAESIDE EAST	100%	100%
WA	P37/8907	Granted	RAESIDE EAST	100%	100%
WA	P37/8908	Granted	RAESIDE EAST	100%	100%
WA	P37/8909	Granted	BRAISER	100%	100%
WA	P37/8910	Granted	BRAISER	100%	100%
WA	P37/8911	Granted	BRAISER	100%	100%
WA	P37/8912	Granted	BRAISER	100%	100%
WA	P37/8913	Granted	TRIGG	100%	100%

WA	P37/8914	Granted	TRIGG	100%	100%
WA	P37/8915	Granted	TRIGG	100%	100%
WA	P37/8916	Application	TRIGG	100%	100% Pending Grant
WA	P37/8917	Application	TRIGG	100%	100% Pending Grant
WA	P37/8918	Application	TRIGG	100%	100% Pending Grant
WA	P37/8919	Application	TRIGG	100%	100% Pending Grant
WA	P37/8920	Application	TRIGG	100%	100% Pending Grant
WA	P37/8921	Granted	TRIGG	100%	100%
WA	P37/9044	Application	CARDINIA	-	100% Pending Grant
WA	P37/9045	Application	CARDINIA	-	100% Pending Grant
WA	P37/9046	Application	CARDINIA	-	100% Pending Grant
WA	E37/1325	Application	MALCOLM	-	100% Pending Grant
WA	E37/1331	Application	MALCOLM	-	100% Pending Grant

#### Mining Tenements acquired during the Quarter

WA	P37/9044	Application	CARDINIA	-	100% Pending Grant
WA	P37/9045	Application	CARDINIA	-	100% Pending Grant
WA	P37/9046	Application	CARDINIA	-	100% Pending Grant
WA	E37/1325	Application	MALCOLM	-	100% Pending Grant
WA	E37/1331	Application	MALCOLM	-	100% Pending Grant

#### Mining Tenements disposed during the Quarter

WA	E77/2035	Granted	LAKE SEABROOK	Gold Rights Only	Tenement Surrendered
WA	E37/1302	Application	RAESIDE	100%	Application Withdrawn

For more information on the Company visit [www.magres.com.au](http://www.magres.com.au)

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Email [gsakalidis@magres.com.au](mailto:gsakalidis@magres.com.au)

#### Competent Person's Statement

Information in this report that relates to Exploration is based on information reviewed or compiled by George Sakalidis BSc (Hons) who is a member of the Australasian Institute of Mining and Metallurgy. George Sakalidis is a director of Magnetic Resources NL. He has sufficient experience which is relevant to the style of mineralisation and type of deposit under consideration and to 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'. George Sakalidis consents to the inclusion of this information in the form and context in which it appears in this report.

#### Note:

Where historical exploration results are mentioned, the Company's Competent Person has examined these historical results and confirms that no additional work has been carried out to change the reporting of those results other than as disclosed in this announcement.