Enterprise Metals Limited

**ASX RELEASE**

**28 July 2017**

# JUNE 2017 QUARTERLY ACTIVITIES REPORT

## CORPORATE

**ASX Symbol: ENT**

**ACN 123 567 073**

**CAPITAL STRUCTURE**
**Shares on issue: 315,133,979**
**Market Cap: $8.51 million**

## BOARD OF DIRECTORS

**Dr Allan Trench**
Non-Executive Chairman

**Mr Dermot Ryan**
Managing Director

**Dr Zhijun He**
Non-Executive Director

**Mr Sam Middlemas**
Company Secretary &
Chief financial Officer

## PROJECTS

**Copper/Zinc/Gold**
Doolgunna

**Nickel/Copper**
Fraser Range

**Gold/Copper/Zinc**
Darlot
Yalgoo
Murchison

**For further information, please contact :**

**Dermot Ryan**
**Managing Director**

## DOOLGUNNA CU-ZN(AU) PROJECT

- **Two diamond drill (DD) holes testing an electromagnetic (EM) conductor at Homestead Prospect by Sandfire Resources NL (ASX: SFR) intersected sediments with non-economic sulphides.**
- **Sandfire consider the sedimentary horizons intersected by DD holes hold evidence for active volcanogenic conditions and favourable VMS potential in the area.**
- **Assays are awaited and planning of further drilling will proceed after geological interpretation is completed.**
- **Sandfire also report their regional aircore (AC) drill program nearing completion (583 holes/48,627m to date) with assay results and interpretation awaited.**

## FRASER RANGE NI-CU PROJECT

- **New Apollo exploration team identified two "HeliTEM" anomalies not previously tested and a conceptual drill target south of Plato Prospect.**
- **Large magnetic feature on E28/2403 considered to be an intrusive body and a high priority target.**
- **Apollo report planning for gravity surveys, field and surface sampling programs underway, which will provide information for later ground EM surveys.**

## OTHER (post 30 June)

- **New "Murchison Project" initiated with acquisition of tenements prospective for Au and Cu/Zn north of Cue.**

## CORPORATE

- **Cash at 30 June 2017 was $394,000. Other liquid assets (AME: ASX listed shares) with fair value $0.864m at 30 June 2017. Total cash and liquid assets: ~$1.26 million.**

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## SUMMARY OF ACTIVITIES

**DOOLGUNNA PROJECT** (Enterprise 100%, Sandfire Resources NL have right to earn 75%)

In October 2016 Enterprise Metals Limited ("Enterprise") entered into a farm-in and joint venture Agreement with Sandfire Resources NL ("Sandfire", ASX: SFR) over all of Enterprise's Doolgunna Project tenements, which lie immediately to the south of Sandfire's extensive landholdings (Shown in Figure 1).

The Doolgunna Project covers an area of ~917km$^2$ and contains over 60km strike of the southern boundary of the Bryah Basin and the northern part of the Yerrida Basin. The southern Bryah Basin contains the Narracoota/Karalundi Formations which host the DeGrussa and Monty copper-gold deposits. Sandfire can earn up to a 75% interest in the project by sole funding and managing the project and discovering a minimum JORC (2012) compliant resource of at least 50,000 tonnes contained copper (or equivalent).

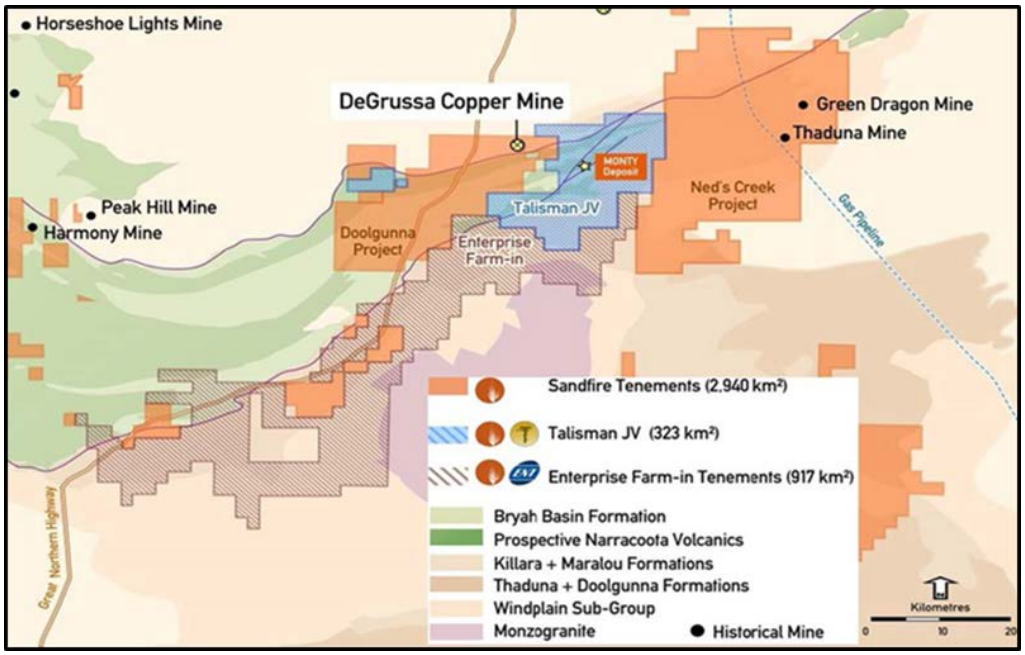


**Figure 1. Sandfire's Doolgunna Project Area with the Enterprise Farm-In Area Incorporated**

Sandfire has reported to Enterprise that exploration is presently being undertaken across the package of tenements, including a review of existing ground electromagnetic (EM) and airborne EM (AEM) datasets.

**HOMESTEAD PROSPECT**

Sandfire completed two diamond core holes at the Homestead Prospect (DGDD415 and DGDD416) to test DHEM targets on the boundary between 100% owned Sandfire tenure and the Sandfire-Enterprise Farm-In tenements. Both holes intersected sedimentary horizons with mineralogical and lithological EM characteristics which could explain the geophysical response. Assays are still pending, and planning of further drilling will proceed after geological interpretation is completed.

**Sandfire considers that the sedimentary horizons intersected by the diamond drill holes hold evidence for active volcanogenic conditions and favourable VMS potential in the area.**

Refer ENT's ASX releases 13 June and 19 June 2017.

## REGIONAL AIRCORE DRILLING

On 18 April 2017 Enterprise announced that Sandfire had commenced a regional 600 hole aircore drilling program over 10 strike kilometres of the favourable volcano-sedimentary sequence interpreted to belong to the Narracoota/Karalundi Formations. Refer ENT ASX release 18 April 2017.

Sandfire reported that the regional AC exploration drilling program continued throughout the June Quarter. Drilling consisted of an offset 400m x 100m line and hole spaced grid pattern designed to provide geochemical coverage and aid detailed geological interpretation to be used for further targeting. Sandfire reported that 583 AC drill holes were completed for a total advance of 48,627m, with the program nearing completion.

This AC program also covered the **Vulcan Gold Anomaly**, and Sandfire report that geological interpretation of the area has commenced using data from Sandfire's current drill program.

Discovered by Enterprise in 2012 through soil sampling and subsequent AC drilling, the Vulcan Gold Anomaly occurs within the 1,500m long copper/gold soil anomaly, which has a VMS style multi-element association of Au-Ag-As-Pb-Zn-Mo-Sb-Cd. Refer ENT's ASX release 17 September 2012.

Sandfire have advised that further drilling is planned to test the Vulcan Gold project area.

The location of Sandfire's exploration activities during the June Quarter are shown in Figure 4.

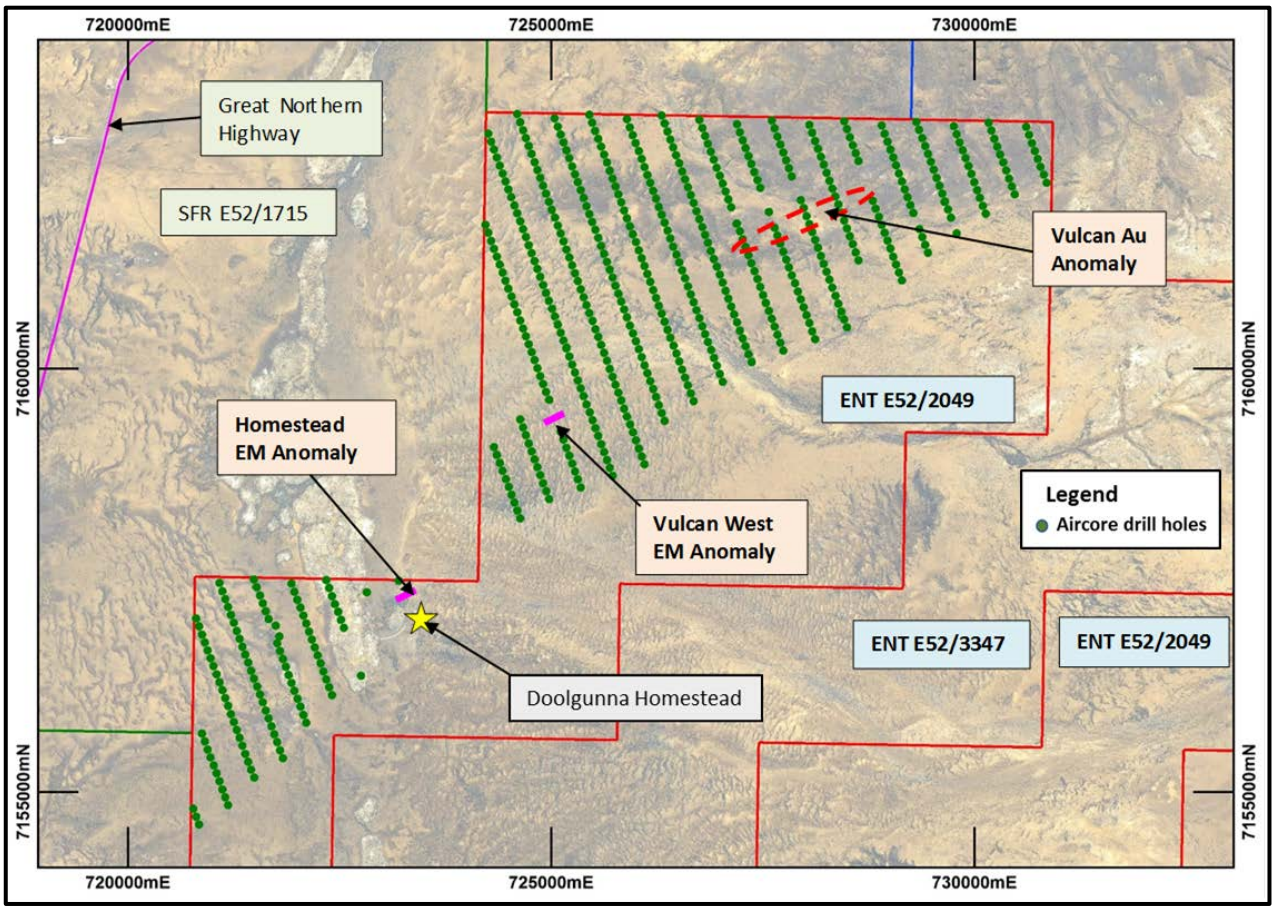


**Figure 4. Location Plan, Sandfire Completed Activities - Enterprise Project - Q2, 2017.**

**FRASER RANGE PROJECT** (Orpheus JV - Apollo Minerals Ltd 70%, Enterprise 30%)

The Fraser Range Project consists of four tenements covering over 600km² in a highly prospective portion of the world class Fraser Range exploration district, host to Independence Group's (ASX: IGO) major Nova nickel and copper deposit. The Project is considered highly prospective for copper/nickel and gold mineralisation and covers the core of the Fraser Range gravity feature, which defines the prospective nickel-copper belt containing Independence Group NL's (ASX: IGO) Nova deposit.

The majority of the Project is strategically located along strike and mid-way between the Nova deposit to the northeast and Independence Group's Crux nickel prospect to the southwest. (Refer Figure 5 below) In mid-2014, the Company's maiden drilling program at Plato intersected disseminated and "blebby" nickel-copper sulphide mineralisation over significant widths within rocks which were originally cumulate mafic rocks. The presence of magmatic nickel-copper sulphides demonstrate the fertility of the mafic intrusives within the Company's tenement package.

Under a Sale and Joint Venture Agreement announced on 13 February 2015, Apollo Minerals Ltd ("Apollo", ASX: AON) purchased a 70% interest in the Fraser Range tenements. Apollo is operating and managing the JV, and must free carry Enterprise's 30% interest to completion of a Bankable Feasibility Study (BFS) on any discovery. Refer Figure 5 below.

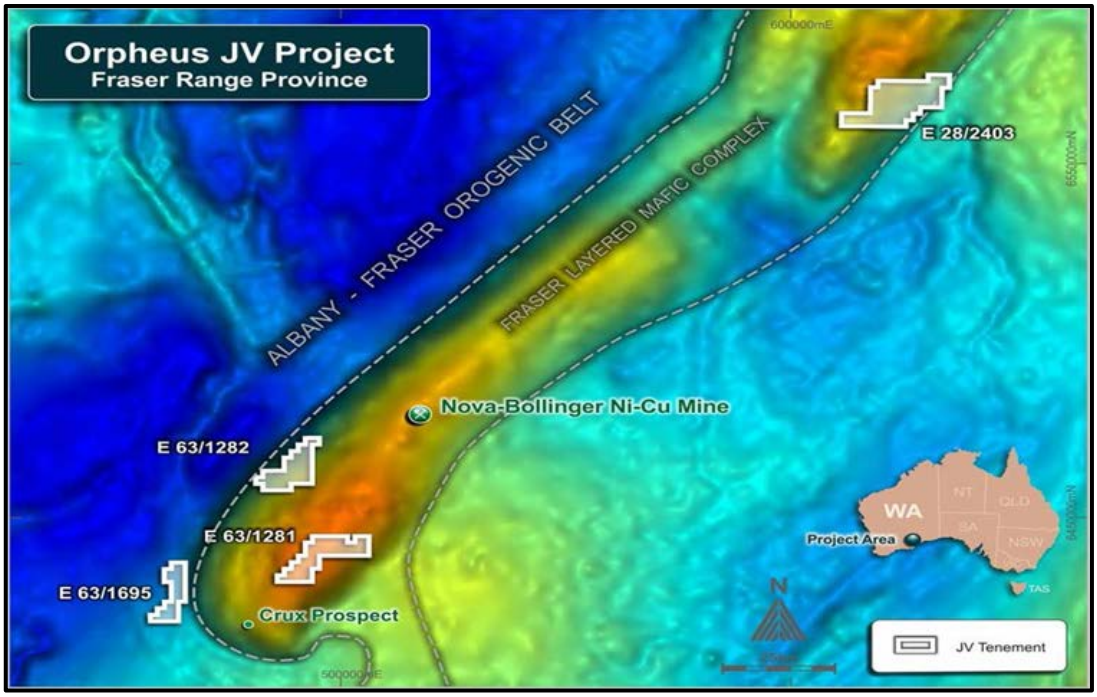


**Figure 5. Tenement Plan – Orpheus JV Project, Fraser Range province on gravity image**

**New Apollo Exploration Team**

During the June Quarter, the new Apollo exploration team completed a comprehensive review of all available data within the Orpheus JV Project area. The review identified a number of priority targets, both empirical and conceptual, that require ground follow-up. These included two airborne electromagnetic ("HeliTEM") anomalies that had not been previously identified and a conceptual drill target at the Plato Prospect. Refer AON ASX release 27 July 2017.

Apollo report that the HeliTEM anomaly is located only 10km to the northeast of the known magmatic nickel-copper sulphide mineralisation at the Plato Prospect (Figure 6). A ground based electromagnetic ("EM") survey is planned to follow-up this target after field verification.

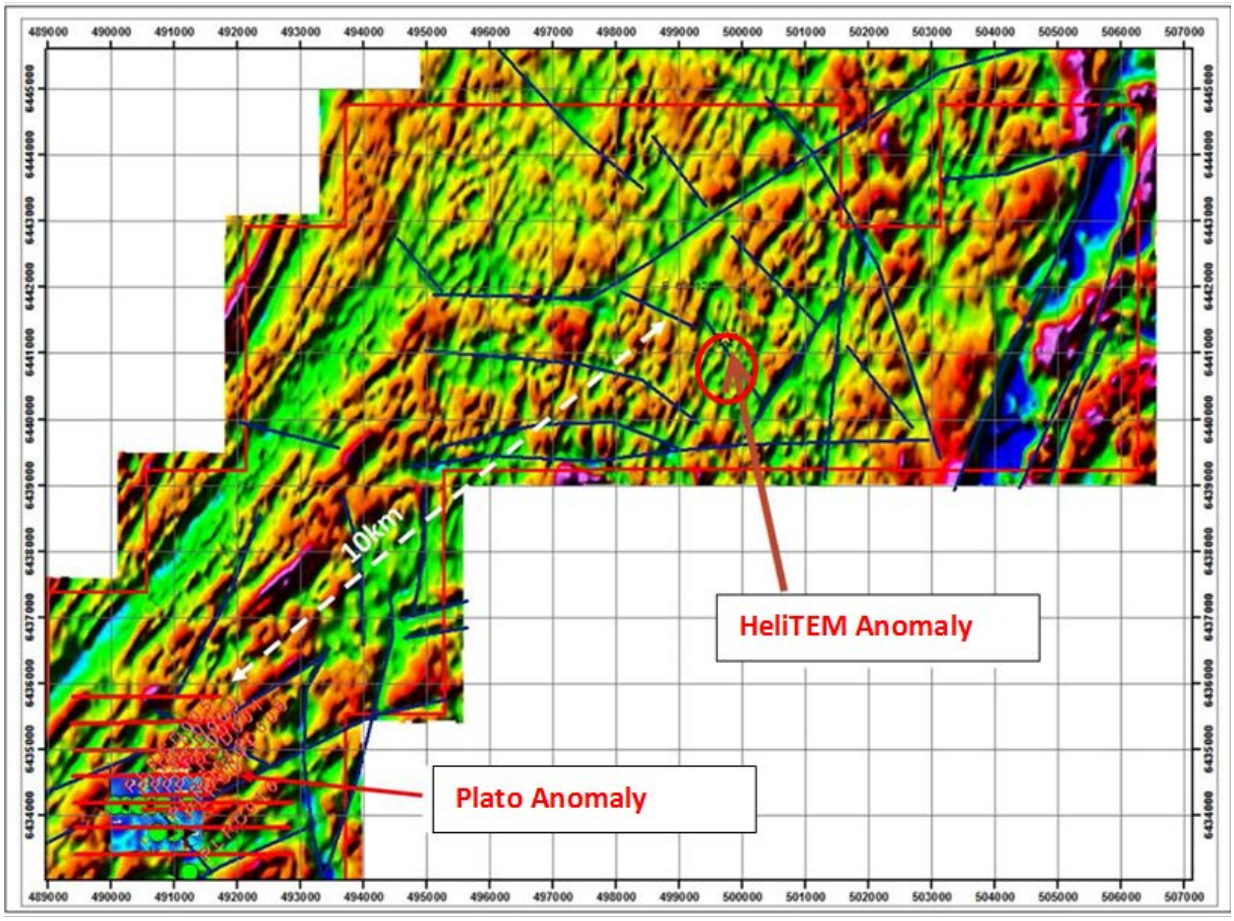


**Figure 6. E63/1281 - Location of HeliTEM anomaly 10km to the NE of known nickel-copper mineralisation at the Plato Prospect on TMI RTP magnetic image showing major structures and cross structures.**

A further HeliTEM anomaly was identified, coincident with the intersection of the Fraser Range metamorphic complex and the Snowy Dam formation, on E63/1282. This HeliTEM anomaly will also be field checked and followed-up with ground based EM.

At the **Plato Prospect (E63/1281)**, Apollo's review of the existing geochemical, geophysical and drilling data, along with the nickel-copper mineralisation intersected in drilling (e.g. 62m @ 2,055ppm Ni, 596ppm Cu from 208m in PLRCD003) resulted in the identification of a conceptual drill target, hosted in the interpreted strike extensions of the host mafic intrusion, and located adjacent to the intersection with an east-northeast trending structure. There is a coincident broad mid-time ground EM response (Refer Figure 7 overleaf).

The EM response is interpreted as potentially related to deeper weathering due to lithological contrast and/or the presence of disseminated sulphides enhancing the weathering profile. A traverse of RC drilling with diamond tails has been planned to test this target.

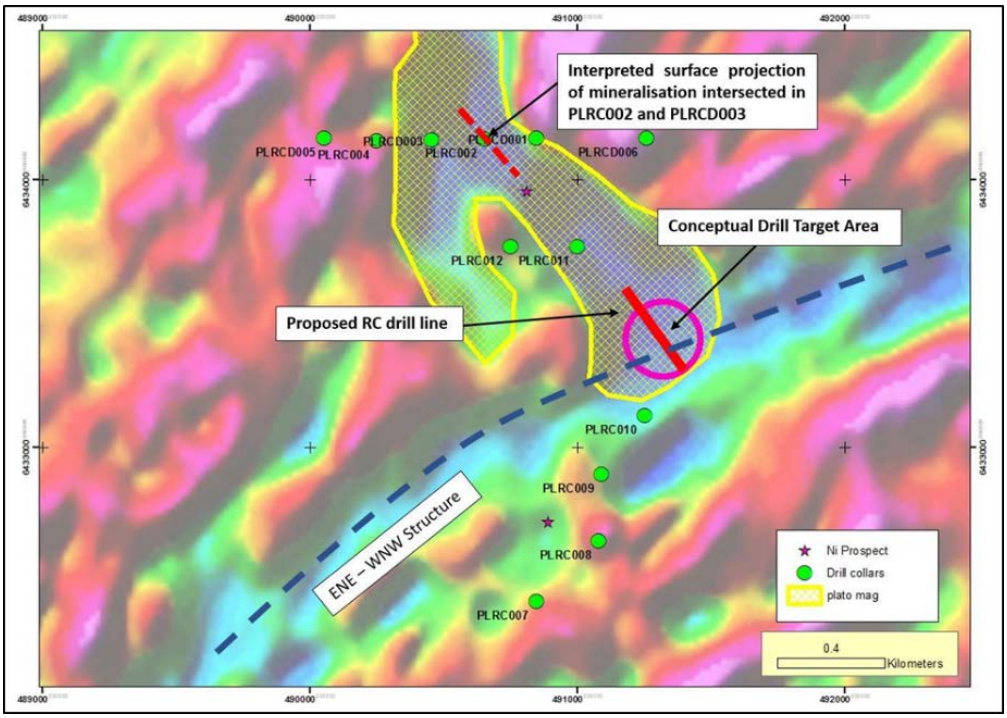


**Figure 7. Plato Prospect (E63/1281) - Location of conceptual drill target on TMI RTP magnetic image showing main structure and interpreted location of the Plato mafic**

A number of other conceptual targets showing strong features analogous to significant known magmatic nickel-copper sulphide deposits were identified and require further work. Of these, a large magnetic feature on **E28/2403** is considered a high priority target. The target is a large zone of magnetic complexity that is running at a high angle to the regional geological fabric suggesting a cross cutting or intruding lithology which lies adjacent to a major northeast trending structural boundary (Refer Target C, Figure 8).

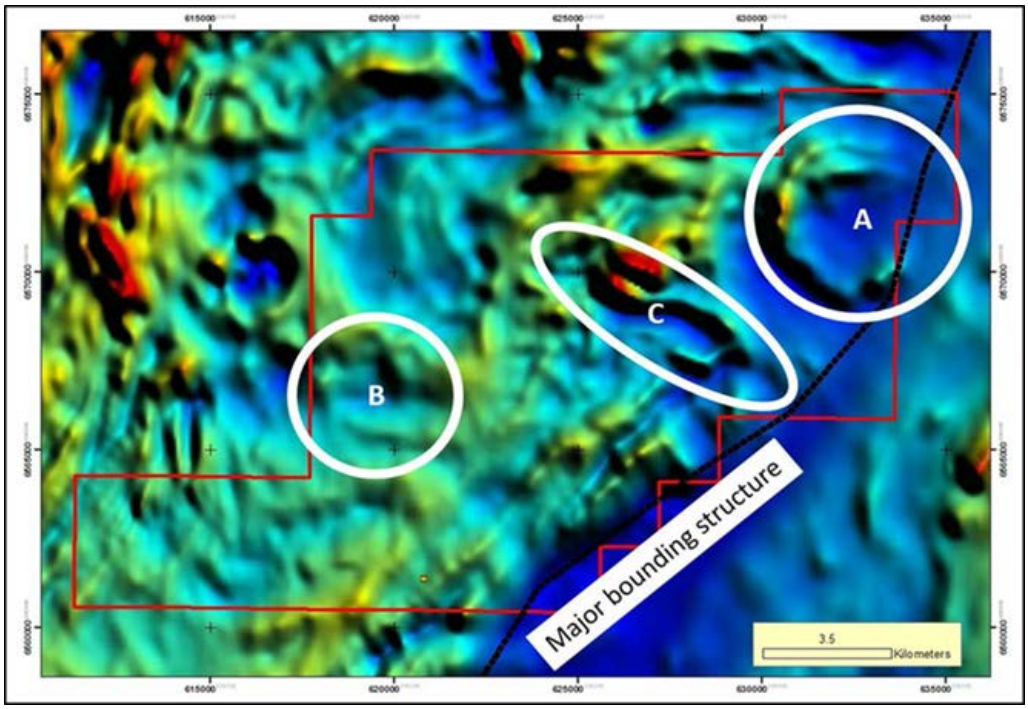


**Figure 8. E28/2403 - Location of conceptual targets and regional fault structure on TMI magnetic image**

Gravity surveys are planned to test Target C, and the adjacent Targets A and B (Refer Figure 8). Any gravity anomaly generated will be covered with ground based EM surveys to screen for massive sulphides.

In addition, a number of geochemical targets defined by coherent zones of elevated nickel and copper anomalism located in favourable structural settings have been identified within the tenement package. Field verification and further surface sampling will be undertaken in these target areas, with potential follow-up with geophysical (i.e. EM) methods.

Apollo reports that planning has begun for the gravity, field verification and surface sampling programs, which will also provide the opportunity to assess logistical requirements for the ground based EM surveys to follow.

## MURCHISON PROJECT

In the March Quarter, the Company applied for two Prospecting Licences (P20/2302 and P20/2303) approximately 20km north northeast of the town of Cue in Western Australia. The tenement applications cover the northern extension of the Emily Well VMS related copper-zinc anomaly.

The Emily Well VMS system was discovered in the period 1970-72, through auger drilling of airborne electromagnetic (EM) anomalies. The auger drilling outlined a strong supergene/ hypogene Cu-Pb-Zn blanket associated with strongly altered felsic volcanics, with a differentiated gabbro apparently cross cutting the system.

On 26 July and post the end of the June Quarter, Enterprise announced that it had acquired an additional three tenements (E20/742 and P20/2095 and P20/2096) 15km north of the township of Cue from Zelda Therapeutics Ltd (ASX: ZLD, formerly Gleneagle Gold Ltd). Refer ENT ASX release 26 July 2017.

The tenements cover 87km$^2$ of Archaean greenstones prospective for orogenic gold and volcanogenic massive sulphide ("VMS") copper-zinc mineralization, and include over 11km of extensions of the Wattagee and Emily Well VMS mineralized horizons, and strike extensions of the gold mineralised Cuddingwarra, Mt Magnet and Emily Shear Zones (Figure 9).

### Geological Setting

The greenstone stratigraphy of the acquired tenements includes felsic volcanics of the Greensleeves Formation and sediments, felsic volcanics and komatiitic basalts of the overlying Ryansville and Wattagee Formations, which all belong to the Archaean Murchison Supergroup.

To the south of the acquired tenements, in areas of outcrop, numerous historic gold workings are known to exist, including Westgold's Cuddingwarra gold mines, from which New Hampton mined approximately 5.7 Mt at 2.5g/t Au for 460,000oz. Figure 10 shows the location of historic gold workings over magnetic stratigraphy and the trace of the Wattagee and Emily Well VMS horizons.

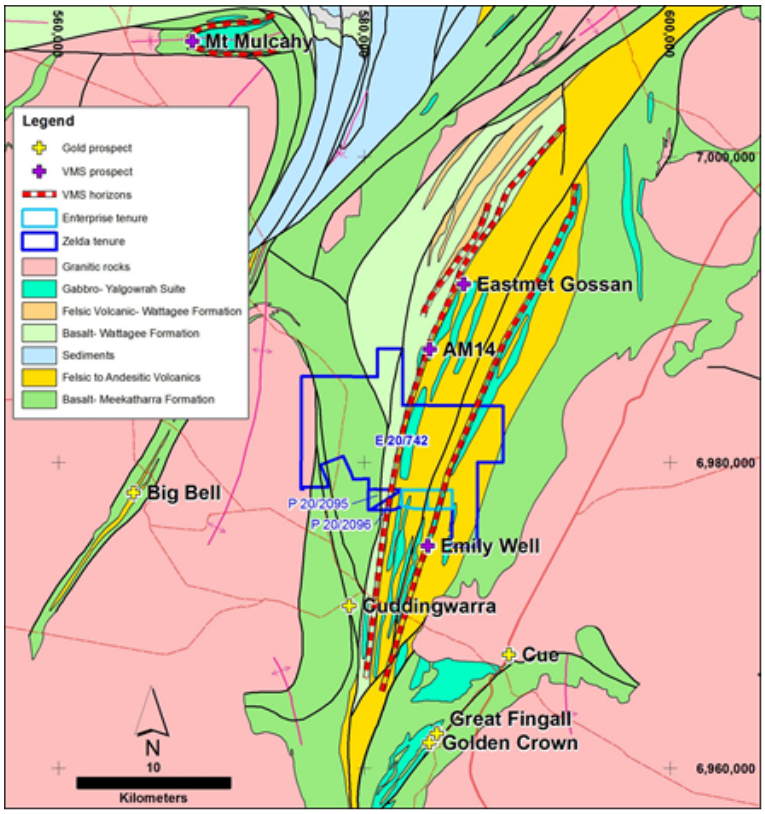


**Figure 9. Location of E20/742 & PL's 20/2095 -2096 - over GSWA Regional Geology and trace of Wattagee and Emily Well Cu-Zn VMS Horizons**

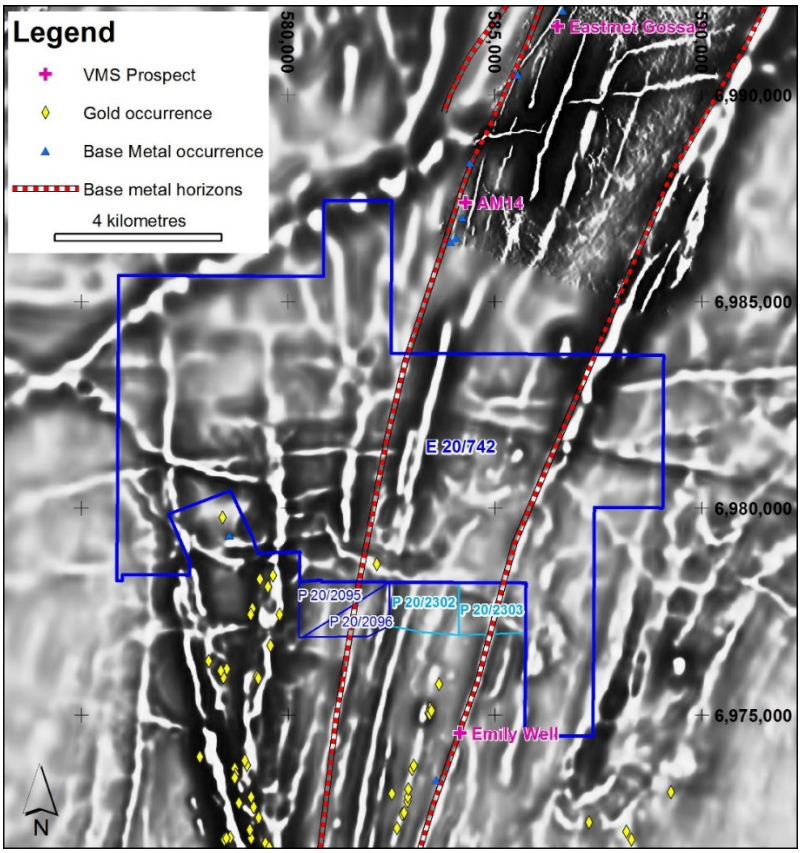


**Figure 10. Enterprise's Landholdings over 1st VD Magnetic Image, showing the trace of the Wattagee and Emily Well VMS horizons**

**Previous Exploration and Next Steps**

Historical copper-zinc exploration on the tenements was based around drilling of airborne electromagnetic anomalies, and no significant regional electromagnetic geophysics has been completed since the early to mid-1970's.

To the north of Enterprise's new landholdings, Esso and others in the 1970's intersected significant downhole widths and grades of copper zinc sulphide mineralisation at the AM14 and Eastmet Gossan prospects. The locations of these prospects are shown in Figures 9 and 10.

The combination of favourable host rocks, large scale alteration systems, significant gold deposits and Cu-Zn intersections along strike and a complex of intersections, regional faults and shears make the tenements a highly prospective area for VMS Cu-Zn and gold exploration.

Enterprise considers the tenements can be quickly and effectively tested using modern airborne geophysics, in combination with modern advanced geochemical tools utilizing historical drill spoil from predominantly broad spaced historical gold exploration programs.

Enterprise plans to:

- fly detailed airborne EM on 50-100m line spacings, looking for both bedrock conductors, indicative of VMS related massive sulphides, and deep weathering indicative of possible oxidation of disseminated sulphides around possible VMS massive sulphide systems; and
- undertake drill spoil sampling from historical drilling, looking to identify large scale gold and VMS style alteration systems without having to undertake new grid based regolith drilling.

## DARLOT PROJECT

Enterprise's Darlot Project is centred in the Archaean Yandal Greenstone Belt approximately 15km west of Gold Fields Darlot gold mine. The project consists of three granted tenements, Exploration Licences 37/859, 37/1031 and 36/778 which are considered prospective for gold and copper-zinc mineralisation and lies at the boundary between mafic and felsic volcanic suites.

In late 2016 Enterprise completed two Induced Polarisation (IP) surveys at West Ockerburry Well and South Overland Well prospects to determine if sulphide mineralisation potentially exists in the fresh rock (primary zone) below a number of historical oxide gold drill intersections.

At the West Ockerburry Well Prospect, within E36/778, a significant gold in regolith anomaly lies 2.5km to the west of the main Ockerburry Well prospect. This was identified by rotary airblast (RAB) drilling undertaken by Mines and Resources Australia Pty Ltd (MRA) in 1997. Enterprise's West Ockerburry Well IP survey identified a large, strong IP basement feature open to the north and south, which requires drill testing.

The South Overland Well Prospect within E37/859 was identified in 1994 by Western Mining Corporation (WMC) during a reconnaissance RAB program on the Mt Von Mueller project (MVM). Follow up RAB, aircore and RC drilling delineated a north-south zone of significant regolith gold mineralisation. Enterprise's South Overland Well IP survey identified moderate IP basement features which are open to the north and south. This IP source has also been recommended for RC drill testing.

## YALGOO PROJECT

The Company's Yalgoo Project consists of one granted tenement, Exploration Licence 59/2076, which covers the western half of the Archaean Yalgoo Greenstone Belt, immediately north of Yalgoo township. The tenement is prospective for gold and base metals, and komatiite hosted nickel sulphides and to a lesser extent pegmatite hosted lithium deposits. Historical exploration has identified widespread gold, mostly associated with quartz veining in mafic units and banded iron formation. A work program has been proposed which includes ground IP surveys, aircore drilling and reverse circulation drilling.

## INVESTMENTS

### Alto Metals Limited

Enterprise currently holds a 7.9% interest (12 million shares) in Alto Metals Limited (ASX: AME, or "Alto"). On 23 June 2016 Alto announced that it had completed the acquisition of most of the Archaean Sandstone Greenstone Belt in Western Australia, which has produced over 1.3 million ounces of gold. At 30 June 2017, Enterprise's 12 million Alto shares had a fair market value of $0.864 million based on share price of 7.2 cents/share.

## ISSUED CAPITAL AT 30 JUNE 2017

| | |
|---|---|
| **Ordinary Fully Paid Shares on Issue** | **315,133,979** |

| **Unlisted Options** | **Exercise Price** | **Expiry Date** |
|---|---|---|
| 2,000,000 | $0.05 | 10/08/2017 |

## CASH POSITION AT 30 JUNE 2017

| | |
|---|---|
| Cash at bank | **$394,000** |
| Value of Liquid assets (ASX listed shares) | **$864,000** |
| **Total cash & liquid assets:** | **$1.258 million** |

**Further information, contact:**

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Managing Director
+61 8 6381 0392 Email: admin@enterprisemetals.com.au

***Competent Persons statements***

*The information in this report that relates to Exploration Results is based on information compiled by Mr Dermot Ryan, who is an employee of Xserv Pty Ltd and a Director and security holder of the Company. Mr Ryan is a Fellow of the Australasian Institute of Mining and Metallurgy and a Member of the Australian Institute of Geoscientists and has sufficient experience of relevance to the styles of mineralisation and the types of deposits under consideration, and to the activities undertaken, to qualify as a Competent Person as defined in the 2012 Edition of the Joint Ore Reserves Committee (JORC) Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves.*

*2012 Exploration results for Vulcan Gold Prospect referred to in this Report were previously reported by Enterprise Metals Ltd pursuant to JORC Code 2004. This information has not been updated since to comply with the JORC Code 2012, but Enterprise believes the information has not materially changed since it was last reported. Mr Ryan consents to the inclusion in this report of the matters based on information in the form and context in which it appears.*

# TENEMENT SCHEDULES

## ENTERPRISE METALS LTD AND ITS 100% OWNED SUBSIDIARIES, ON A CONSOLIDATED BASIS

### APPENDIX 1: ENT 100% Owned Tenements at 30 June 2017

| Project | Lease | ENT Interest | State | Status |
|---|---|---|---|---|
| Doolgunna | E51/1168 | 100%* | WA | Granted |
| Doolgunna | E51/1301 | 100%* | WA | Granted |
| Doolgunna | E51/1303 | 100%* | WA | Granted |
| Doolgunna | E51/1304 | 100%* | WA | Granted |
| Doolgunna | E51/1539 | 100%* | WA | Granted |
| Doolgunna | E52/2049 | 100%* | WA | Granted |
| Doolgunna | E51/1683 | 100%* | WA | Granted |
| Doolgunna | E52/3347 | 100%* | WA | Granted |
| Darlot | E37/1031 | 100% | WA | Granted |
| Darlot | E36/778 | 100% | WA | Granted |
| Yalgoo | E59/2076 | 100% | WA | Granted |
| Murchison | P20/2302 | 100% | WA | Application |
| Murchison | P20/2303 | 100% | WA | Application |

** ENT registered holder of 100% interest, with Sandfire Resources NL managing and funding to earn a 75% in the Doolgunna Project tenements subject to discovery of a resource of 50,000t contained copper or equivalent.*

### APPENDIX 2: Darlot Joint Venture Tenements at 30 June 2017

| Project | Lease | ENT Interest | Rudd-Gianni Interest | State | Status |
|---|---|---|---|---|---|
| Darlot | E37/859 | 80%** | 20% | WA | Granted |

** *ENT registered holder of 80% interest, with Allan Rudd & Peter Gianni jointly holding a 20% free carried interest to completion of any Bankable Feasibility Study.*

### APPENDIX 3: Fraser Range Joint Venture Tenements at 30 June 2017

| Project | Lease | ENT Interest | AON Interest | State | Status |
|---|---|---|---|---|---|
| Fraser Range | E63/1281 | 30% | 70% | WA | Granted |
| Fraser Range | E63/1282 | 30% | 70% | WA | Granted |
| Fraser Range | E63/1695 | 30% | 70% | WA | Application |
| Fraser Range | E28/2403 | 30% | 70% | WA | Granted |

**ENT registered holder of 30% interest, free carried to completion of any Bankable Feasibility Study.*