



EPM 17300

WAVERLY NORTH

6<sup>TH</sup> ANNUAL REPORT FOR PERIOD ENDING 5 JULY 2015

BY

AEON WALFORD CREEK LIMITED

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## 1. Introduction

EPM 17300 is situated south of Mount Isa straddling the crustal-scale Mount Annable Fault; the southern extension of the mineralised Mount Isa Fault System. The EPM was acquired to explore for structurally controlled, mid-Carpentarian gold and base-metal mineralisation. The tenement, along with EPMs 12653, 17297 & 15911, forms part of Aeon Walford Creek Limited, Waverly Basin Project. The Waverly Basin is a small, narrow, north-south trending sedimentary basin abutting the Mount Annable, Rufus and Wonomo Fault Systems. Outcropping geology within the basin includes lower units of the highly prospective Mount Isa Group.

Potential exists for:

- Shale hosted Pb-Zn-Ag – George Fisher and Hilton
- Sediment breccia hosted Cu – Mount Isa Copper and Gunpowder
- Shale hosted Au/Cu-Au

### Access and Location

EPM 17300 is situated approximately 65 km south of Mount Isa, Figure 1. The tenement overlies the boundary between the Ardmore and Ashover stations. Access is via the sealed Diamantina Development Road and by various station tracks on Ardmore and Ashover. EPM 17300 is located on the Oban (6755) 1:100,000 and Urandangi (SF-5405) 1:250,000 map sheets.

### Tenure

EPM 17300 consists of 5 sub-blocks and was granted to Aeon, formerly Aston Metals on 6<sup>th</sup> July 2009 for a period of 4 years. The tenement was renewed through until 5<sup>th</sup> July 2018. The sub-blocks are tabulated below in Table 1 and also shown in Figure 1 over the regional topography.

**Table 1 Block and sub-block details for EPM 17300**

BIM	Block	Sub-block	Number
CLON	1097	x, y	2
	1169	b, c, d	3
		Total	5

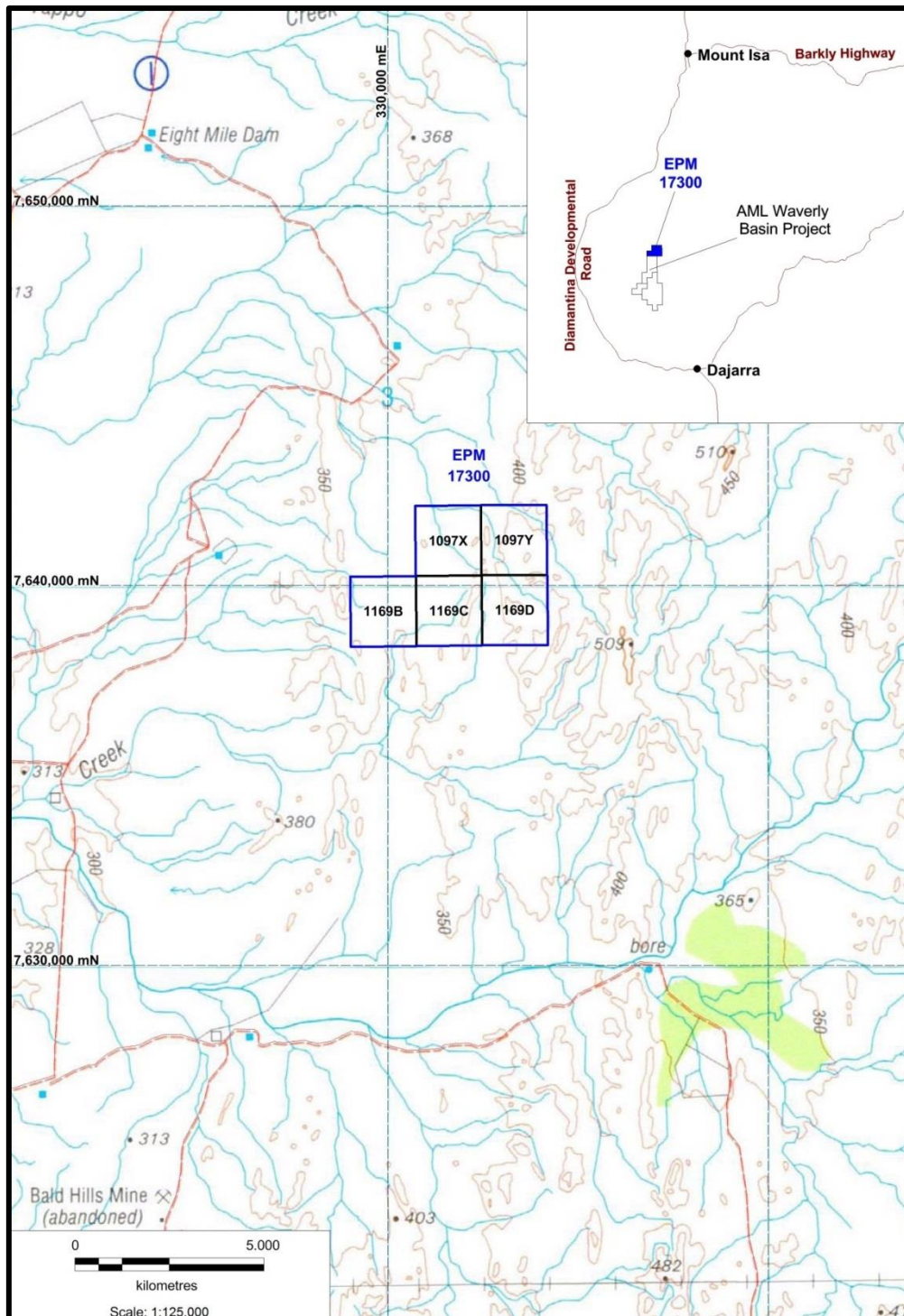


Figure 1 Location of EPM 17300 over Urandangi 1:250,000 topographic map sheet with sub-blocks labelled; inset shows the location of EPM 17300 and the other tenements of Aeon Metals' Waverly Basin Project south of Mount Isa.

## 2. Regional Geology

EPM 17300 lies within the Leichhardt River Subprovince of the Western Fold Belt of the Mount Isa Inlier. In the area south of Mount Isa this Subprovince is bound to the west by the Georgina Basin and to the east by the Kalkadoon-Leichhardt Province. EPM 17300 covers an area of outcropping lower Mount Isa Group

sediments within the SSW plunging synformal Mount Annable Syncline. The syncline is parallel to, and truncated to the west by the Mount Annable Fault zone. Continuing west from the fault, minor plutonic outcrops associated with the large Sybella Batholith and Eastern Creek Volcanics (ECV) of the Haslingden Group outcrop. The eastern margin of the syncline is also defined by a Haslingden Group unit: the Mount Guide Quartzite.

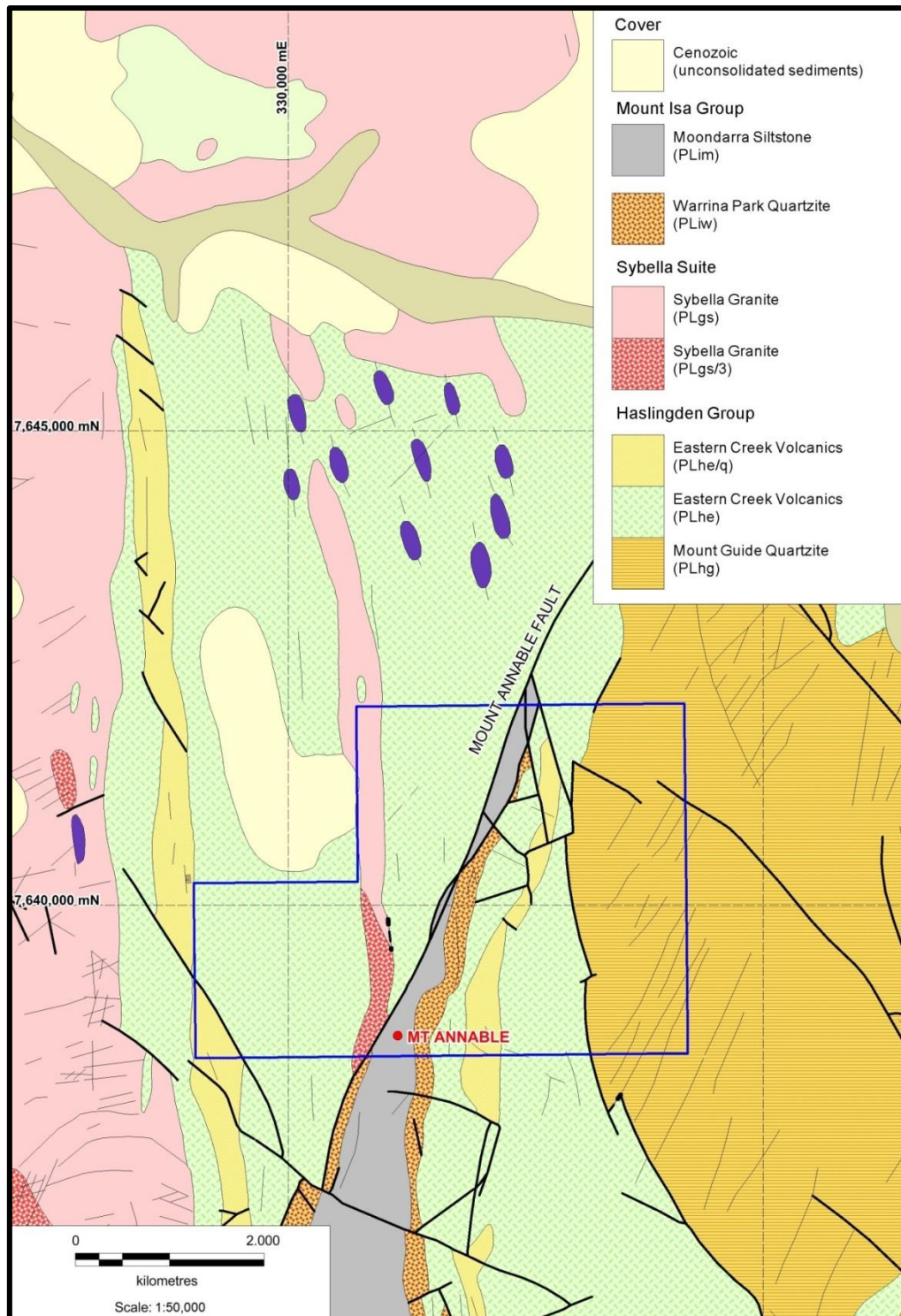


Figure 2 Regional geology (Oban 1:100,000 map sheet) and major structures in the vicinity of EPM 17300 and the Mount Annable prospect. Geology legend inset is in relative stratigraphic order.



The Mount Annable Cu-Au prospect occurs within the eastern limb of the interpreted syncline, within 100m of the interpreted trace of the syncline axis.

The following units outcrop within the tenement and are shown in Figure 2 below:

- Mount Isa Group – Moondarra Siltstone (PLim)
- Warrina Park Quartzite (PLiw)
- Sybella Batholith Suite – Sybella Granite (PLgs and PLgs/3)
- Haslingden Group – Eastern Creek Volcanics (PLhe) and interbedded Quartzite Member (PLhe/q), and Mount Guide Quartzite (PLhg).

Within the tenement area the Eastern Creek Volcanics (ECV) comprise massive to amygdaloidal metabasalt, purple siltstone, feldspathic quartzite, quartzite, tuff, volcanic-sandstone and schist. Overlying the ECV, Mount Isa Group sediments define the Mount Annable Syncline. The Warrina Park Quartzite forms the limbs of the structure, forming distinctive ridges which gradually widen to define the Waverly Basin in the south. The Warrina Park Quartzite comprises orthoquartzite, feldspathic quartzite, pebbly sandstone, conglomerate, ferruginous siltstone, minor arenite, sericitic metasiltstone, breccia and silty greywacke. Overlying the Warrina Park Quartzite, the Moondarra Siltstone comprises thinly-bedded fine to medium orthoquartzite, feldspathic sandstone, siltstone, dolomitic siltstone, dolomite, limestone, pyritic siltstone and minor shale. The core of the Mount Annable Syncline is interpreted to contain Breakaway Shale though outcrops are indicated to occur further south of EPM 17300. The Mount Isa Group and Haslingden Group units within the Mount Annable Fault zone are highly sheared and schistose.

North-south trending Sybella Granite outcrops west of the Mount Annable Fault, forming part of the regionally-distributed Sybella Batholith which intrudes the Haslingden Group metabasalts. The Sybella Granite is a local phase of the Sybella Batholith and comprises foliated porphyritic granite, minor pegmatite, leucogranite, gneissic granite, granodiorite and diorite.

### 3. Previous Exploration

Exploration along the Mount Annable Fault has occurred sporadically over the past 30 years. Activity includes exploration work by Anaconda, Aberfoyle and BHP. Several airborne surveys have also been completed; principally aeromagnetic and radiometric. This activity has largely focused on base metal and gold exploration and is summarised in previous reports. In addition a small mining operation has existed in the past at Mount Annable with the construction of a concreted shaft and head-frame remaining at the prospect. No reference to this activity, however, can be found in company or open file reports.

**Table 2 Previous Exploration within the Mount Annable vicinity.**

Company	Years	Work Completed	Commodity
Anaconda Australia Inc	1980-1982	Mapping, aeromagnetics and radiometrics, ground SIROTEM, geochemistry, costeans, RAB and RC drilling.	Cu, Pb, Zn
Aberfoyle (incl JV with BHP 1995-1997)	1991-1998	GEOTEM surveys, aeromagnetics, soil sampling and RC drilling.	Cu, Pb, Zn, Au

#### 4. Previous Exploration by Aeon Metals

Aeon Metals has carried out extensive exploration work within EPM 17300; geochemical sampling, geophysical surveying, prospect-scale mapping and percussion/diamond drilling have been conducted since the tenement was granted. Table 3 summarises exploration work completed by Aston Metals.

**Table 3 Summary of previous exploration by Aeon Metals**

Exploration Period	Activity	Report
2009-2010	<ul style="list-style-type: none"><li>• Heli-borne VTEM survey over the area completed July 2008</li><li>• Condor Consulting contracted to conduct regional interpretation identifying EM conductors</li><li>• SRK Consulting contracted to conduct regional-scale structural mapping over the Mount Isa-Mount Annable-Rufus Fault system</li><li>• Prospect-scale mapping along the over the Mount Annable Fault zone within the tenement</li><li>• Rock chip and soil sampling</li><li>• RC/Diamond drilling of two holes; ABPD001 and ABPD002</li><li>• Data compilation and review</li></ul>	2010
2010-2011	<ul style="list-style-type: none"><li>• RC drilling of one hole; ABRC005</li><li>• Desktop studies</li></ul>	2011
2011-2012	<ul style="list-style-type: none"><li>• Follow-up mapping</li><li>• Continued review and compilation incorporating data obtained by Aston Metals with all historical open file data.</li><li>• On-going assessment of 2007/2008 VTEM survey</li></ul>	2012
2012-2013	<ul style="list-style-type: none"><li>• Continued desktop studies</li></ul>	2013
2013 - 2014	<ul style="list-style-type: none"><li>• Aston Metals was in Receivership. Only data reviews.</li></ul>	2014
2013-2014	<ul style="list-style-type: none"><li>• Desktop review and data evaluation, No field activity undertaken.</li></ul>	2015

In 2007 Aeon Metals contracted Geotech International to acquire VTEM data over the tenement area as part of a larger survey covering much of Aeon Metals' tenements. Completion and interpretation in 2008 identified VTEM conductors from the Channel 20 (deepish response) and Cumulative Conductivity (surface response).

Prospect-scale mapping from 2009-2010 focused on the Mount Annable Fault corridor, identifying a paragenetic sequence of deposition and subsequent deformation for the area. Geochemical sampling has included rock chip sampling and a regional soil sampling survey over a grid of 50 x 250m spacing. Towards the south of the tenement, near the Mount Annable historical prospect, infill lines were added to the soil sampling survey at 100m spacing. The majority of geochemical sampling was conducted along the Mount Annable Fault zone and Mount Isa Group sediments.

Drilling in 2010 and 2011 was concentrated around the Mount Annable prospect. A total of 3 drill holes were completed within EPM 17300 for a total of 807m (395.1m RC and 411.9m diamond). Drilling intersected variable, predominantly vein-hosted mineralisation (Table 4); however, the intervals of weak copper

anomalism present do indicate that mineralising, ore-bearing fluids are present in the vicinity of the drill holes. Appropriate drilling information can be found in the 2010 Annual Report by H. Degeling and in the 2011 Annual Report by T. Adamson.

## **5. Exploration Completed During the Current Term**

EPM 17300 is an important part of the Aeon Metals Waverly Basin Project. Due to difficulties raising funds for high risk exploration, work by Aeon Metals during the current reporting period has been limited to desktop interpretation and assessment of the previously gathered data. Aeon has continued to focus on its Walford Creek Project as a priority for its available funds.

## **6. Discussion and Conclusion**

Exploration by Aeon Metals within EPM 17300 and contiguous EPM 12653, to the south, has drill tested the historical Mount Annable copper prospect achieving variable results (intersections of up to 17m at 0.44% Cu were achieved within EPM 12653; Warburton, P. 2013). These drilling results in the vicinity of the Mount Annable prospect are moderately encouraging. Drill testing is at an early stage and the weak copper anomalism intersected indicates that some potential still remains for mineralisation at depth within the siltstones of the Mount Isa Group in EPM 17300. Recommended further work includes:

- Ground reconnaissance and further field evaluation of the previous work
- Possible RC drilling at the Mount Annable prospect testing the extent of vein-hosted Cu in ABPD002 and also the extent of fracture-fill chalcopyrite mineralisation observed in ABRC003 (EPM 12653).
- Possible scout drilling to the north where surface geochemistry within Moondarra Siltstone is anomalous for copper in close proximity to the Mount Annable Fault.
- Close spaced heli-borne magnetic survey to highlight prospective structures within the Mount Isa Group sediments.
- Further modelling of the Waverly Basin to include EPM 17300.

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