



OM Manganese Ltd

Title holder/operator: OM (Manganese) Ltd (100%)

Tenement Manager: Australian Mining and Exploration Title Services Pty Ltd (AMETS)

EL28604 Renner Springs Project

Annual Technical Report for period 27th Sept 2015 to 26th Sept 2016 (Year 5)

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Abstract

Exploration licence EL28604 makes up the southern portion of OM (Manganese) Ltd Renner Springs Project area and is largely composed of land previously held under EL23459 (expired). EL28604 has several occurrences of manganese mineralisation identified within its boundary.

There was no exploration activity in 2015/2016. The OMM exploration budget for 2015 was constrained due to market downturn and capital restrictions, and OMM was under 'Administration' from December 2015 to August 2016. OMM is currently waiting on approval of the Bootu Creek MMP prior to recommencing operations.

The proposed exploration program for 2016 has been deferred to 2017.

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Electronic file list

File Name	File type	Content
EL28604_2016_A.pdf	PDF	This report

1 Introduction

Exploration licence EL28604 was granted on the 26th of September 2011 covers an area of 87.5 sq km (29 blocks).

The EL is located approximately 10 kilometres southwest of Renner Springs Roadhouse and 160 kilometres north of Tennant Creek. Figure 1 shows the location of the licence in relation to the Bootu Creek manganese mine and local stations.

The western boundary of the exploration licence is approximately 20 km east of the Alice Springs-Darwin railway. Access to the exploration licence from Stuart Highway is via a dirt road used to service the natural gas pipeline, running alongside the northern boundary fence of Muckaty station.

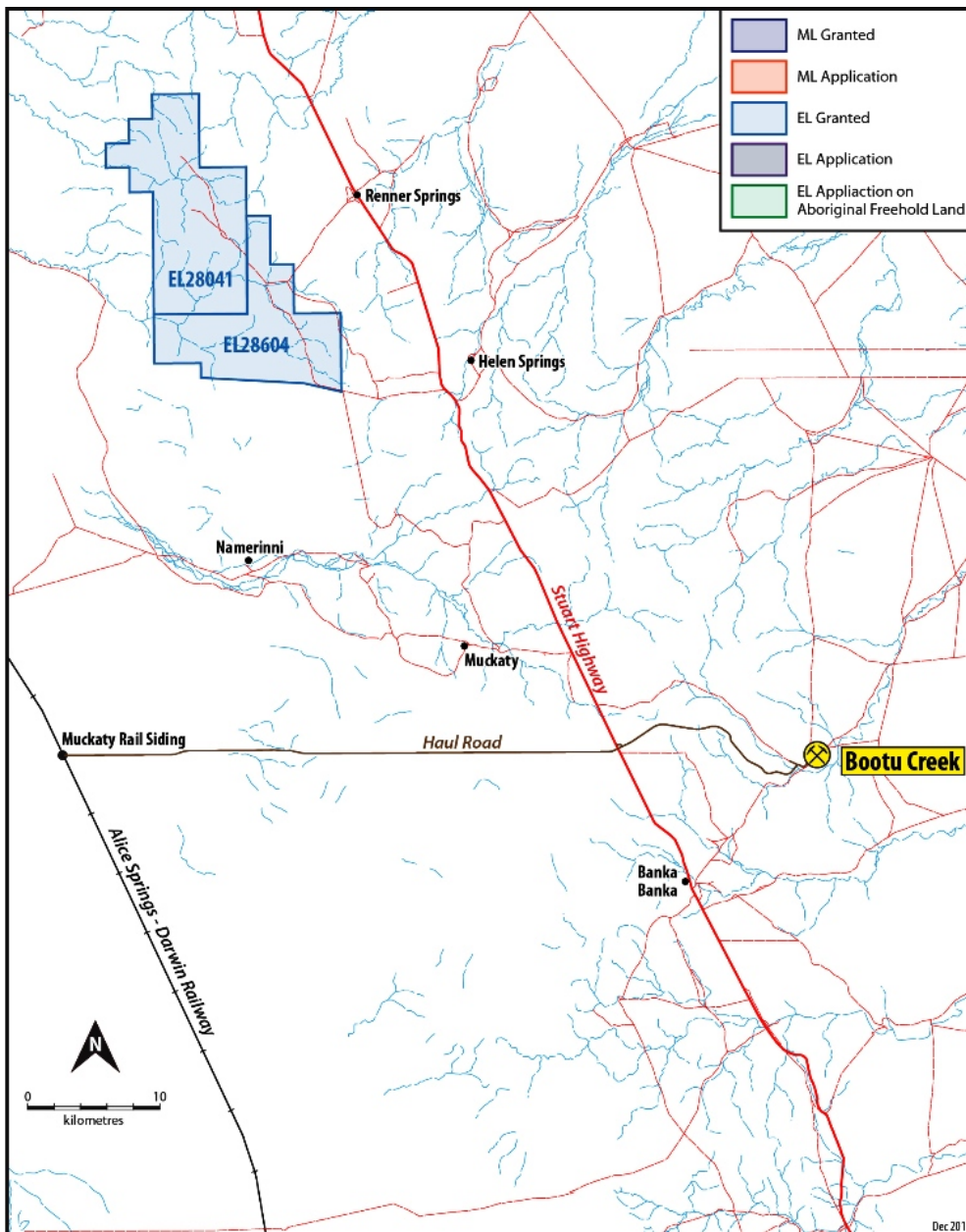


Figure 1. Location plan and access tracks for EL28604

2 Geology

The Renner Springs project is predominately located within the Namerinni Group in the Ashburton Province of the Tennant Creek Inlier. The favourable manganese bearing horizon is hosted principally by the Shillinglaw Formation.

The most significant manganese occurrence in EL28604 is located in the south-east portion of the Licence and referred to as Carruthers (R10) prospect. The manganese mineralisation does not outcrop and was first intersected in percussion drill hole number W38, drilled by Keys Resources NL intersecting 9m @ 36.7% Mn (Ward 1987), see Figure 3.

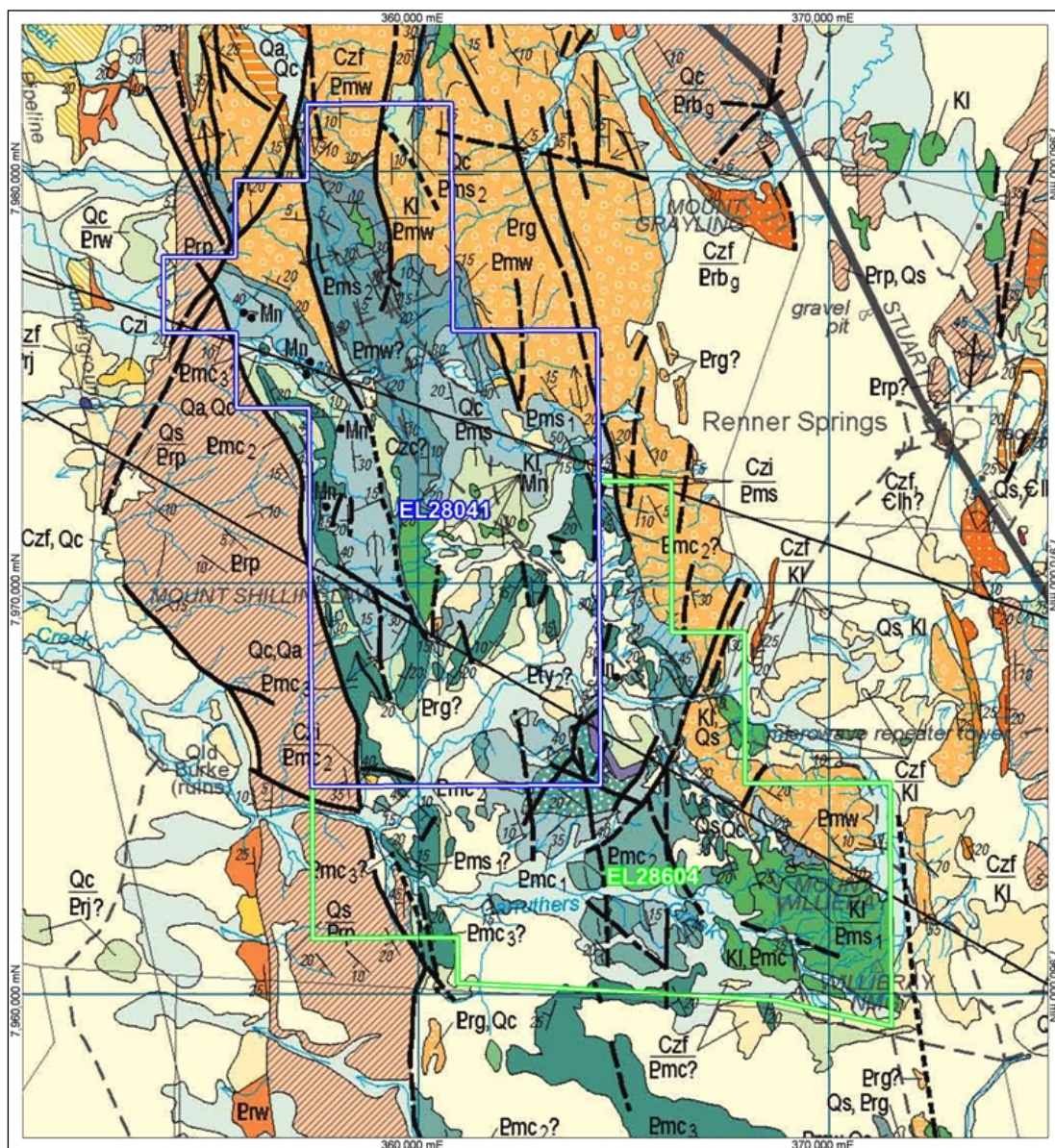


Figure 2. Geology from the NTGS 1:250k Helen Springs sheet, *Hussey et al 2001*.

Physiography of the exploration licence consists of hilly terrain in the east of the exploration licence with the highest point at Mount Willieray (361m). Several incised creeks head west across the exploration licence before dissipating into the sand covered plains to the west.

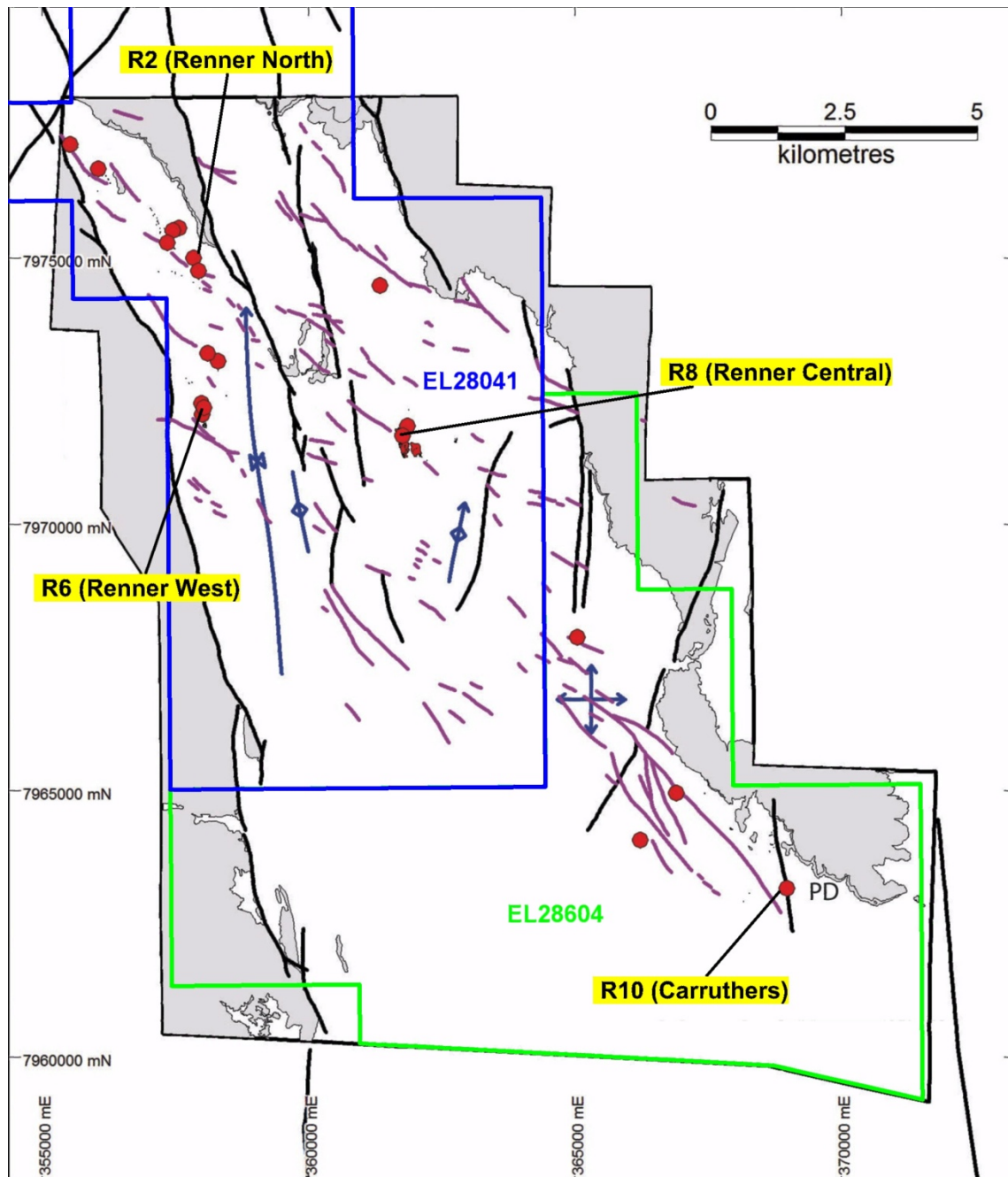


Figure 3. Renner Springs Manganese Prospect locations

Manganese prospects - distribution of manganese at Renner Springs (red) from all Mn units mapped at 1:20,000 (Blake) and 1:4,000 (Drake-Brockman) and public domain data.

Structural features - northwest trending fault suite and air photo lineaments in (mauve), major faults (black) and fold axes (blue).

3 Previous Exploration Activity

3.1 Exploration Activity 2003/2011

Exploration carried in the 8 year life of EL23459 include -

- Handheld EM (E31 & E34) surveys conducted by Neil Scriven,
- Excavation and sampling of a costean (since rehabilitated),
- Review of multispectral satellite imagery (by Amit Eliyahu),
- Helicopter-borne SkyTEM survey,
- Detailed aeromagnetic and radiometric survey,
- Aerial photography,
- Regional geology mapping (1:20,000) by Tim Blake,
- Detailed prospect mapping (1:4,000) by Joe Drake-Brockman,
- RC drilling at Carruthers, Willieray Dam and Northern Costean prospects,
- Gradient Array IP (GAIP) ground survey at Carruthers prospect.

Detail of these exploration programs is included in the EL23459 Final Technical report (2003-2011).

3.2 Exploration Activity 2011/2012

Exploration activities undertaken in 2011/2012 period (Year 1) include -

- 700m north & 500m south extension of 2010 Carruthers GAIP ground survey,
- 13 hole (1,194m) RC drill program testing potential southern and down dip extension of Carruthers prospect,
- Rehabilitation of costean excavated in 2007.

3.3 Exploration Activity 2012/2013

Exploration activities undertaken in 2012/2013 period (Year 2) include -

- Commenced a 54.7 line km Gradient Array IP ground survey (includes 3.0 line km extending west onto EL28041). Survey 75% completed (39.2 line km) at the end of Year 2, with the remainder completed 8th October 2013 (Year 3).
- Ground checking of Chargeability anomalies generated by above survey.

3.4 Exploration Activity 2013/2014

Exploration activities undertaken in 2013/2014 period (Year 3) include -

- Remaining 15.5 line km, of an overall 54.7 line km Gradient Array IP ground survey program (including 3.0 line km on EL28041), completed October 2013.
- Drill collar self-audit and repair/rehabilitation of 52 RC holes.

4 2014-2016 Exploration Activity

Exploration activity in 2014/2015 and 2015/16 was essentially nil, other than minor field reconnaissance and data review with a view to drill targets. The budget for planned exploration programs on this and other Exploration Licences in 2016 has been deferred until 2017, due to market downturn and capital restrictions and OMM being under 'Administration' from December 2015 to August 2016. OMM is currently waiting on approval of the Bootu Creek MMP prior to recommencing operations.

5 Conclusions and Recommendations

The objective of the exploration program has been to conduct reconnaissance ground geophysical GAIP survey testing the 6km long NNW-SSE manganese trend extending from Carruthers prospect in the south through to 600m north of the Scriven costean, to identify manganese mineralisation obscured by the shallow alluvial cover.

The chargeability survey results highlighted two significant anomalies and several minor anomalies. The two more significant anomalies are both covered by shallow alluvium, though manganese did sub-crop in an adjacent creek bed with one grab sample from the creek returning 50% Mn.

The recommended exploration program for 2015 (Year 4) has been deferred to 2017 (Year 6) and will be to RC drill test the two significant 'chargeability' anomalies, and if successful to drill the minor anomalies to establish the local potential for a manganese deposit. The area of interest lies midway between Carruthers and Willieray prospects to the SW and the Scriven costean to the NE. No manganese mineralisation had been identified in previous geological mapping of that area.

6 References

Reddell, C.T., Bailey, M.H., (2011) EL23459 Renner Springs Project, Final Technical Report for period 4th March 2003 to 3rd March 2011, *OM (Manganese) Ltd, unpublished.*

Hussey, K.J., Beier, P.R., Crispe, A.J., Donnellan, N., and Kruse, P.D., (2001) Helen Springs, Northern Territory. 1:250,000 geological map series and explanatory notes, SE53-10 (Second Edition) *Northern Territory Geological Survey*

Blake, T. S. (2010), Report following 1:20,000 Scale Mapping of the Helen Springs and Renner Springs Tenement Areas (Northern Territory). *Unpublished report for OM (Manganese) Ltd.*

Drake-Brockman, J. A. P. (2010), Report following 1:4,000 Scale Mapping of the Selected Areas in the Renner Springs Tenement Area (Northern Territory). *Unpublished report for OM (Manganese) Ltd.*