

TNG LIMITED

ENIGMA MINING LTD

MOUNT HARDY PROJECT

SECOND GROUP ANNUAL REPORT

EL 27892 – 17/09/15 to 16/09/16

EL 28694 – 17/09/15 to 16/09/16

EL 29219 – 17/09/15 to 16/09/16

Tenement/s	EL 27892, EL 28694 and EL 29219	1:250 000 Sheet Name	Mt Doreen (SF5212)
Holder	TNG Ltd	1:100 000 Sheet Name	Yuendumu (5253) Doreen (5153)
Manager	Enigma Mining Ltd	Datum	GDA94-52
Operator	Enigma Mining Ltd		
Commodity	Cu, Au		
Elements Analysed			
Keywords	Rehabilitation, drill targets EM, IP, monitoring, tenement assessment		
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Executive Summary

The Mount Hardy project is located approximately 300km north-west of Alice Springs in Northern Territory. The project comprises three exploration licences (EL 27892, EL 28694 and EL 29219) which lie in the Aileron Province of the northern Arunta region.

The project area contains the historical Mount Hardy Copper Field where known copper mineralisation exists within the highly prospective Lander Group. The project area is accessed via the Tanami Road and is situated on the Mount Doreen pastoral lease (NT Portion 1947 under Perpetual Pastoral Lease 1035).

Recommendations from a September 2015 Field Inspection by the DME were implemented during rehabilitation completed in October 2015. An assessment of the project area was undertaken and EL 28694 was reduced by 50%.

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TABLE OF CONTENTS

1. INTRODUCTION	4
2. LOCATION AND ACCESS	4
3. TENURE.....	4
4. GEOLOGY	6
4.1 Local Geology and Mineralisation.....	7
5. PREVIOUS EXPLORATION	8
5.1 Exploration completed by TNG, 2011-2016.....	9
6. EXPLORATION COMPLETED, 2015-2016	10
7. PROPOSED 2016-2017 PROGRAM	12
REFERENCES.....	13

FIGURES

Figure 1: Location of Mount Hardy project area.	5
Figure 2: Reduction of blocks across EL 28694.	6
Figure 3: Geological setting of the Mount Hardy Project Area.	8
Figure 4: TNG Exploration at Mount Hardy since 2011.....	10
Figure 5: Historical exploration within the Mount Hardy Project area.	11
Figure 6: Location of proposed exploration target areas within the Mount Hardy Project area.	12

TABLES

Table 1: Mount Hardy Project tenure details.....	4
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APPENDICES

Appendix 1 – Rehabilitation Report	
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1. INTRODUCTION

The Mount Hardy project is located approximately 300km north-west of Alice Springs in Northern Territory. The project comprises three exploration licences (EL 27892, EL 28694 and EL 29219; Figure 1) which lie in the Aileron Province of the northern Arunta region.

The project area contains the historical Mount Hardy Copper Field where known copper mineralisation exists within the highly prospective Lander Group. The project area is accessed via the Tanami Road and is situated on the Mount Doreen pastoral lease (NT Portion 1947 under Perpetual Pastoral Lease 1035).

Limited exploration was undertaken during the reporting year. Rehabilitation of previous drillholes is ongoing along with the continued assessment of the project area as a whole.

2. LOCATION AND ACCESS

The Mount Hardy project is located approximately 300km north-west of Alice Springs in Northern Territory (Figure 1). The project comprises three exploration licences covering a total area of 521.38 km². The project area is accessed via the Tanami Road and is situated on the Mount Doreen pastoral lease (NT Portion 1947 under Perpetual Pastoral Lease 1035). The project area falls on the Mount Doreen (SF5212) 250K mapsheet.

The Mount Hardy project area is dominated by the Yarunganyi and Ngadarunga Hills, north of the Tanami Road with Mount Doreen being the highest point of the range at 860m. The regions consists of low ridges and some areas of high relief separated by extensive flats. The drainage is generally northwards. East Point Ridge, on which Mount Hardy Mines is located, strikes east-northeast for about 304 metres and has its highest point about 21 metres above the extensive lowlands drained by Keridi Creek. To the west, a series of low ridges join East Point to the Gap Range. This range, with a relief of several hundred feet, is broken at the Gap, was of Brown's Mine, by a drainage system trending north from Mount Hardy, and is separated from the Mount Hardy Range by an area of low relief.

3. TENURE

The Mount Hardy Project Area comprises three exploration licences, EL 27892, EL 28694 and EL 29219 covering an area of 315.54 km². Under section 29(2) of the *Minerals Titles Act* the title area of EL28694 was reduced from 64 blocks to 32 blocks prior to its fourth anniversary in March 2016. Licence details are summarised in Table 1.

Table 1: Mount Hardy Project tenure details.

TITLE	AREA (blocks)	AREA (km ²)	GRANT DATE	EXPIRY DATE
EL 27892	32	107.76	04/08/2010	3/08/2016
EL 28694	32	101.82	1/03/2012	28/02/2018
EL 29219	34	105.96	17/09/2012	16/09/2018

EL 27892 was bought by TNG Ltd from Walla Mines and the transfer completed on 10/07/2012. In the subsequent year TNG, through subsidiary Enigma Mining bought EL 28694 from Tierra Rica with the acquisition completed on 1/03/2013. EL 29219 was granted to Enigma on 17/09/2012.

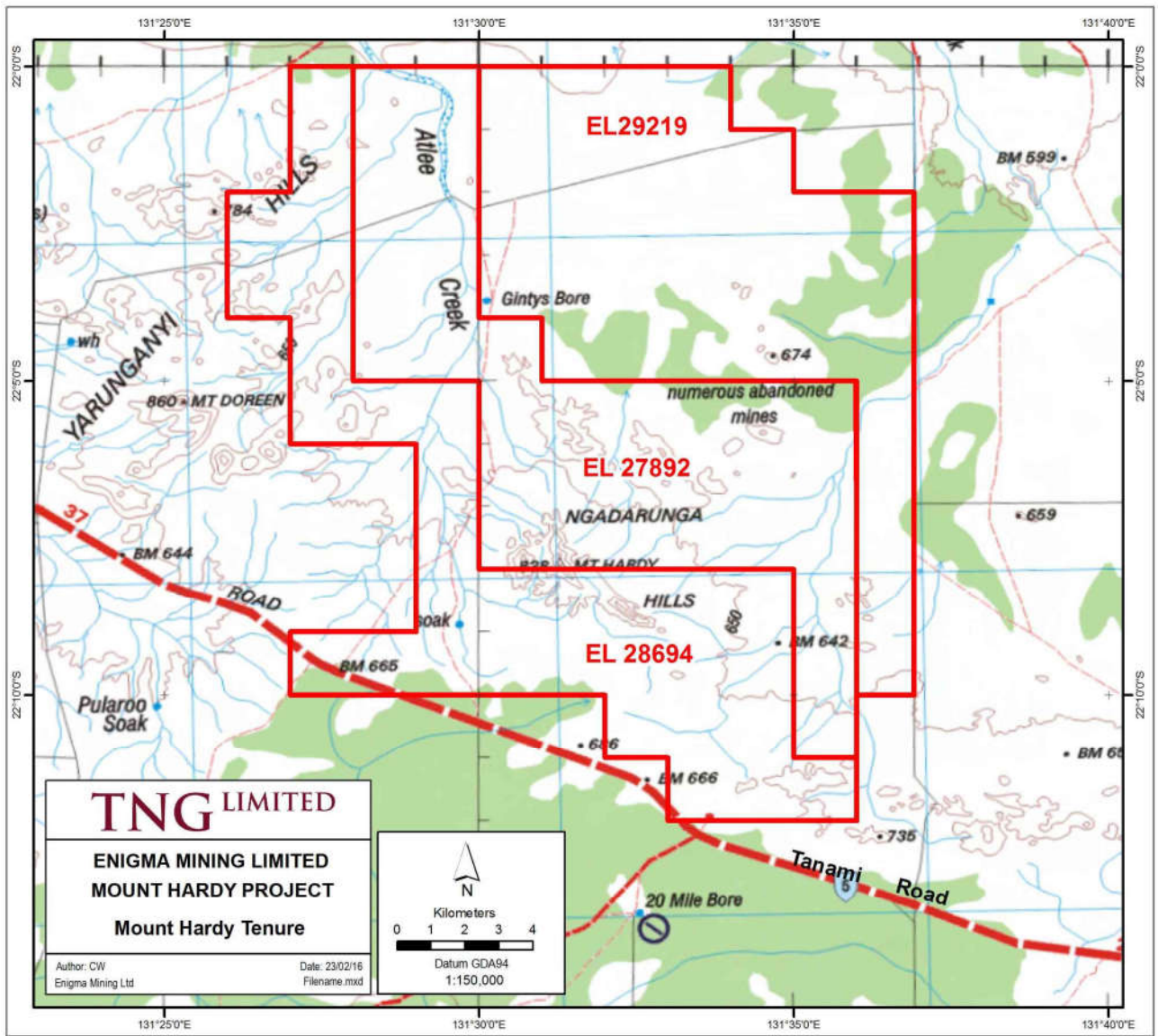


Figure 1: Location of Mount Hardy project area.

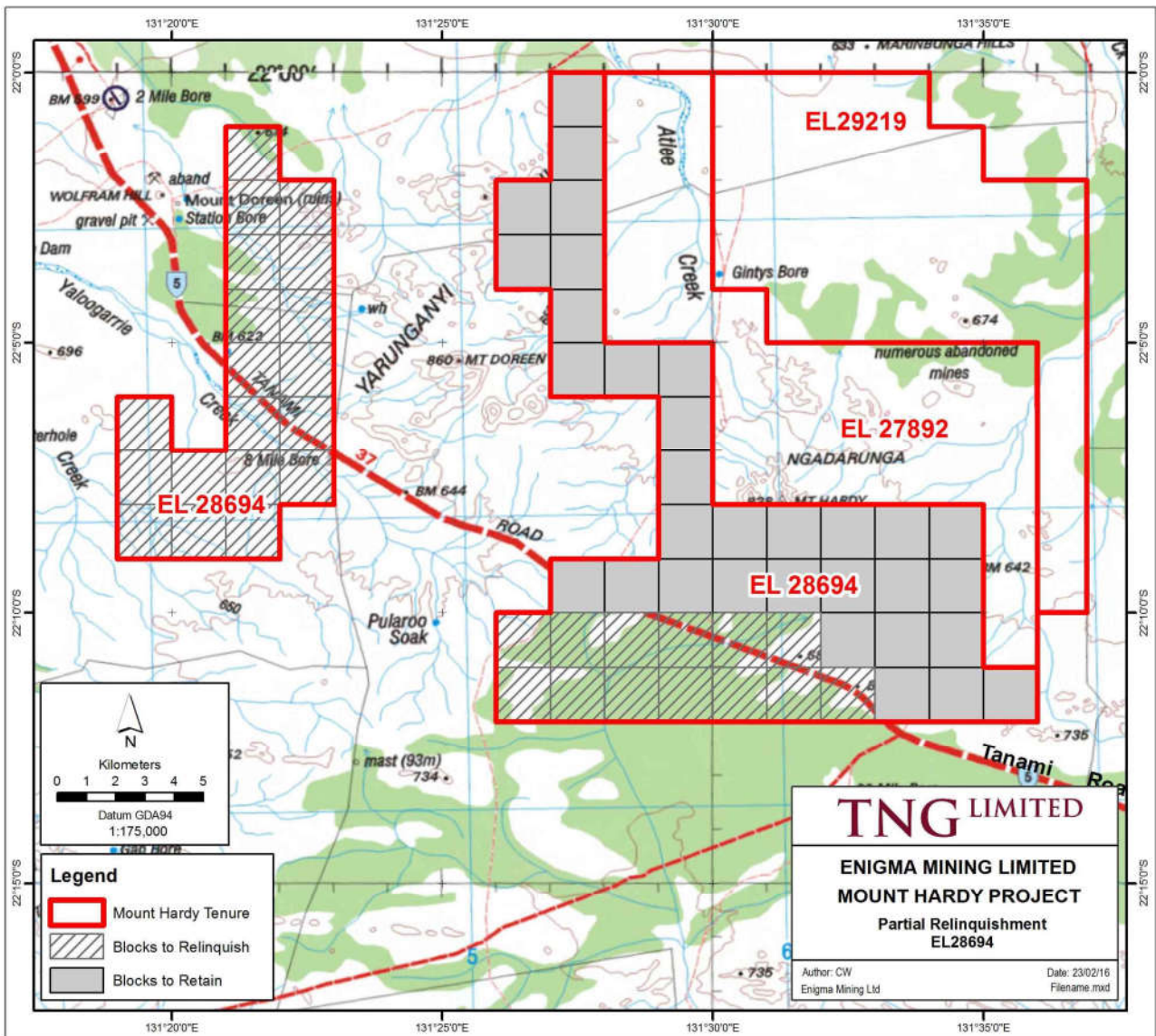


Figure 2: Reduction of blocks across EL 28694.

4. GEOLOGY

The Mount Hardy Project (Figure 2) area lies within the Aileron Province of the northern Arunta region. The oldest rocks in the area are metamorphosed Palaeoproterozoic siliciclastic sediments of the c.1840 Ma Lander Group (Rohde, 2005). These sediments were multiply deformed and variably metamorphosed during the c.1810 Ma Stafford Event and numerous subsequent events. The previously reported magmatic age of 1880 Ma for the Ngadarunga Granite and consequent older age for the Lander Group and proposed Yuendumu Tectonic Event has been re-evaluated and is now interpreted to be much younger (Rohde, 2005).

The Lander Group is interpreted to be stratigraphically equivalent to the Tanami Group, which hosts significant gold mineralisation at The Granites, Dead Bullock Soak and Coyote. As such, the Lander Group metasediments are considered prospective for gold mineralisation.

Rare amphibolite and metagabbro occurs within the Lander Group and are interpreted to be metamorphosed dolerite sills. Volcanic units have not been identified in the Lander Group. There are other Palaeoproterozoic volcanosedimentary successions in the Mount Doreen area, including the ~1770-1790 Ma Reynolds Range Group, Patmungala and Nicker beds, but these are relatively insignificant (Rohde, 2005).

There have been two main periods of granite intrusion in the Mount Doreen area; the c.1780 Ma Carrington Suite and the c.1580 Ma Southwark Suite. The Southwark Suite has geochemical affinities with granite associated with Proterozoic Au-Cu mineralisation elsewhere in Australia (Wyborn, 1998). Correlatives of the 1820-1790 Ma granites in the Tanami region (Frederick and Grimwade Suites) are unknown in the Mount Hardy area and may have implications for mineralisation models (Rohde, 2005).

Neoproterozoic to Palaeozoic sedimentary rocks of the Ngalia Basin overlie the Palaeoproterozoic to Mesoproterozoic Arunta basement in the central part of the Mount Doreen 1:250,000 sheet (Rohde, 2005).

4.1 Local Geology and Mineralisation

The geomorphology at Mount Hardy is dominated by the rugged ranges of the Ngadarunga Hills, which comprise high quartzite ridges of the Reynolds Range Group, and lower rounded hills formed by schists and gneisses of Lander Group metasediments (Rohde, 2005). Regolith is dominated by colluvial gravels and skeletal soils overlaying relatively fresh bedrock on ridgetops and hillsides, giving way downslope to deeper valley filling colluvial fans and fluvial gravels. To the north of the ranges and into EL 29219 are low flat grass plains with thick stands of mulga and occasional low ridges and hills of bedrock schist. The plains have a shallow transported cover of 1-5 m alluvial sand, gravel and clay overlying weather bedrock (Rohde, 2005).

The Mount Hardy copper workings are hosted within the Lander Group (Figure 2) and are dominated by psammite and lesser pelite, which have been metamorphosed to amphibolite-facies mica schist and andalusite(?) porphyroblastic schist. Complex mesoscopic-scale folding of schistosity/bedding is observable. Greenschist facies Lander Group schists and Reynolds Range Group quartzites lie to the south of the workings separated from the higher grade schists by a major east-west fault. Dolerite and pegmatite stocks and dykes are common in the area, the pegmatites most likely related to granite plutons of the Southwark and Carrington suites lying to the west and south of the Ngadarunga Hills (Rohde, 2005).

The copper workings display strong structural controls, being hosted within quartz veined shear zones. Surficial mineralization comprises copper carbonates and gossans within sheared mica-schist wallrocks and boudinaged and brecciated quartz veins. Quartz veins range for tabular and consistently strike over 10 to 100's of metres to complexly fractured and folded plunging rocks (Rohde, 2005).

Two main structural trends are evident from the distribution of the workings and lineations observable in Landsat imagery and aeromagnetism: NW to WNW (parallel to trans-Tanami regional scale structures in the region), and ENE-WSW (Rohde, 2005).

Much of EL28694 comprises Proterozoic granites and granite gneisses. These rocks are structurally complex with various forms of igneous crystallization, chemical composition and texture as well as containing structures such as faults, shears, fractures and veins. In the east and west portions of the tenement the Lander Rock Beds are represented by greywacke, siltstone and shale as well as schist and gneiss.

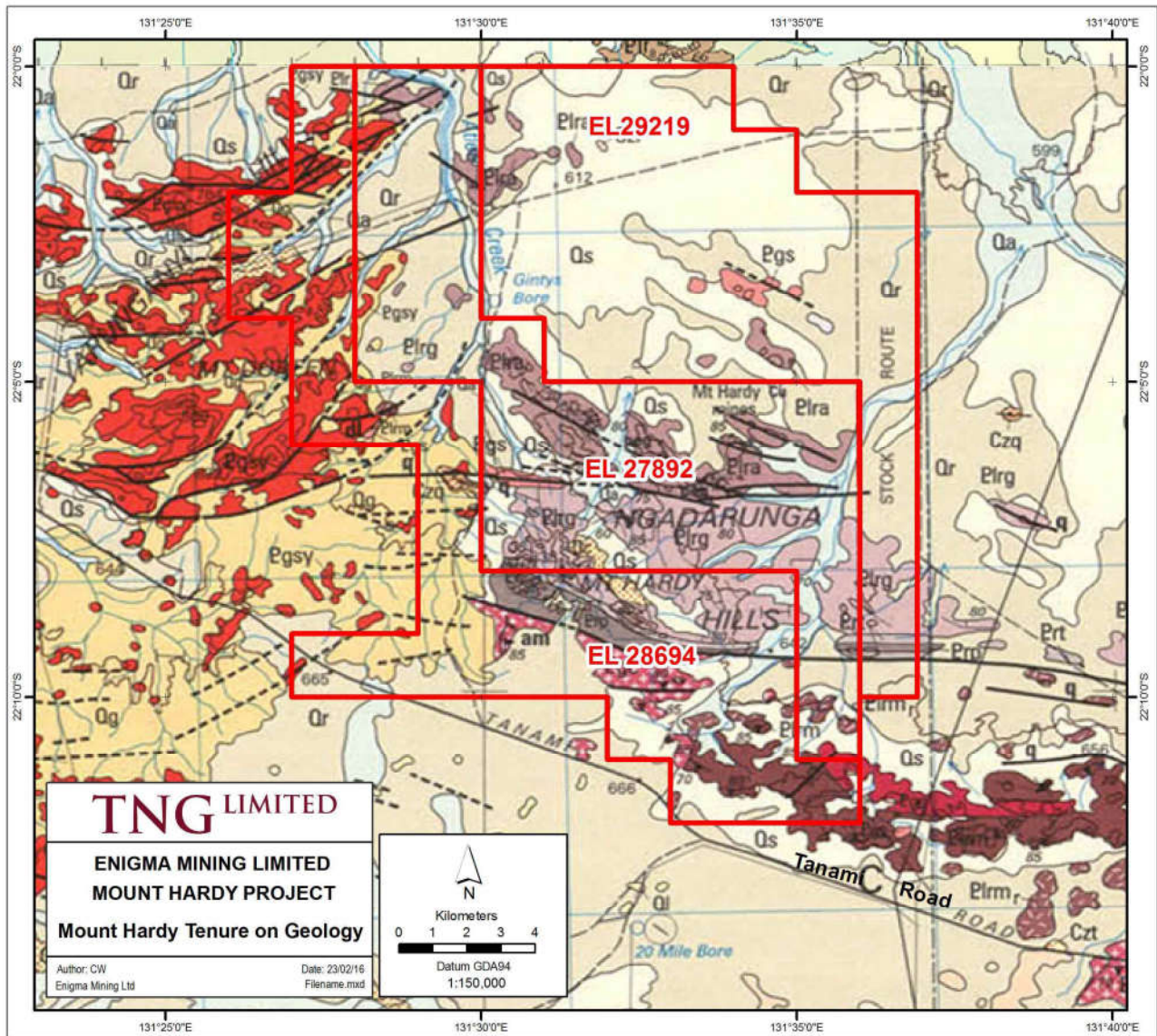


Figure 3: Geological setting of the Mount Hardy Project Area.

5. PREVIOUS EXPLORATION

The following exploration has been carried out on the Mount Doreen mapsheet and around the Mount Hardy area:

- Mount Hardy copper prospects were discovered by W.W. Braiuling in 1935.
- Uranium Development and Prospecting N.L. carried out diamond drilling in the area in 1956.
- Bureau of Mineral Resources (BMR) conducted aeromagnetic, radiometric and gravity surveys in the 1960s.
- Central Pacific Minerals held AP1722 in the Mount Hardy area from 1967-69
- NTGS assessed the economic feasibility of the Mount Hardy and Clarke copper deposits from 1968 to 1972.
- NT Geological Survey and BMR completed 2nd edition mapping of Mount Doreen sheet in the 1990s.
- White Industries conducted exploration on EL 5688 from 1988-90. Rock chip and stream sediment sampling was carried out from Wolfram Hill through to Mount Hardy.

- Bruce and Mules' explored the Silver King area for gold and base metals from 1988-1991.
- MIM/Roebuck Resources Joint Venture targeted magnetic highs in the early 1990s and explored the silver King deposit.
- Yuendumu Mining Company/Posgold explored the western parts of the Mount Doreen area from 1992 to 1996, particularly Terry's Find, other targets were 'Buger' and 'Grasshopper'.
- BMR completed airborne magnetic and radiometric surveys in 1993.
- BHP tested the northern Mount Doreen and southern Mount Theo mapsheets for Cu-Au in the late 1990s, but concluded that no major deposits were likely.
- Tanami Gold NL explored for Tanami-style gold mineralization and Tennant Creek-style copper mineralization in the Mount Doreen area from 2001 to 2005. The main target areas were the Terry's Find, Mount Hardy and Pyramid Hill Prospects. 7 Rock chip samples returned copper assays of 7032 ppm to 217972 ppm.
- Deep Yellow conducted exploration for uranium in the Mount Hardy area in 2009 and 2010. No other commodities were investigated.
- Grant of EL 27892 in 2010 to Bluekebble and transfer to Walla Mines then TNG Ltd – no work carried out by previous holders.
- Grant of EL 28694 in 2012 to Tierra Rica and transfer to Enigma Mining Ltd, no work carried out by previous holder.

5.1 Exploration completed by TNG, 2011-2016

A HeliTEM survey was carried out over the entire licence. Fugro Airborne Surveys Pty Ltd were commissioned to undertake the survey over the Mount Hardy licence area in July 2012. A total of 930 line kilometres were flown in a north-south direction at 200m line spacing over EL 27892 and part of EL 29219.

A total of 23 anomalies were generated from the initial interpretation which resulted in a cluster of five high priority Electro-Magnetic (EM) targets being identified from the survey. These represent discrete anomalies with a strike length of approximately 250m and indicate the presence of localised bedrock conductors at depths less than 100m from surface. All five were located close to or above existing copper prospects.

A further eight discrete anomalies and several broader regions were identified within the survey area. These represent medium priority targets and will be checked in future field programs.

Anomalies from the successful HeliTEM survey completed in July 2012 were extensively ground checked and a mapping and sampling programme undertaken in September 2012. This focused on investigating the strongest HeliTEM Targets (#1 through #5) and the existing historical workings at the Mount Hardy and Browns Mines.

Ground EM was completed over six targets (EM Targets #1 – #6) in August 2012 and a seven hole RC drilling programme across four of these areas was undertaken in November 2012. Six of the seven holes drilled were cased for downhole surveys and downhole EM which was completed in January 2013.

A gravity survey was carried out over the Browns Prospect, Mount Hardy Mine and EM Targets #1, #2, and #4 in February 2013. The aim of the gravity survey was to delineate potential structural controls on the mineralisation identified at the Browns Prospect and Mount Hardy Mine.

IP surveys were conducted by Khumsup Ltd over abandoned Mount Hardy Mine and Browns Prospect in March 2013. The IP surveys were planned as single line trials to test the effectiveness of the technique over mapped copper showings, where the HELITEM survey failed to highlight any significant anomalies.

A fifteen-hole diamond drill program was undertaken in March and April 2013. A total of 2757m was drilled with 2180m of diamond core and four RC pre-collars for 642m. Drilling was conducted at the Mount Hardy and Browns Mine prospects investigating mapped mineralisation and IP anomalism and at EM Targets #1, #2 and #4, targeting DHEM plates.

Downhole electromagnetic (DHEM) surveying of four diamond drill holes, drilled in 2013, was completed during March 2014. These holes are located at EM Target #1, EM Target #4, and the Mount Hardy Prospect.

Additional IP surveys were completed on three areas during early April 2014. The 2013 IP survey over the Browns Prospect was extended to the west, and EM target #6 (within EL 29219) and #7 (within EL 28694) were also tested. Drilling has been recommended for targets #6 and #7.

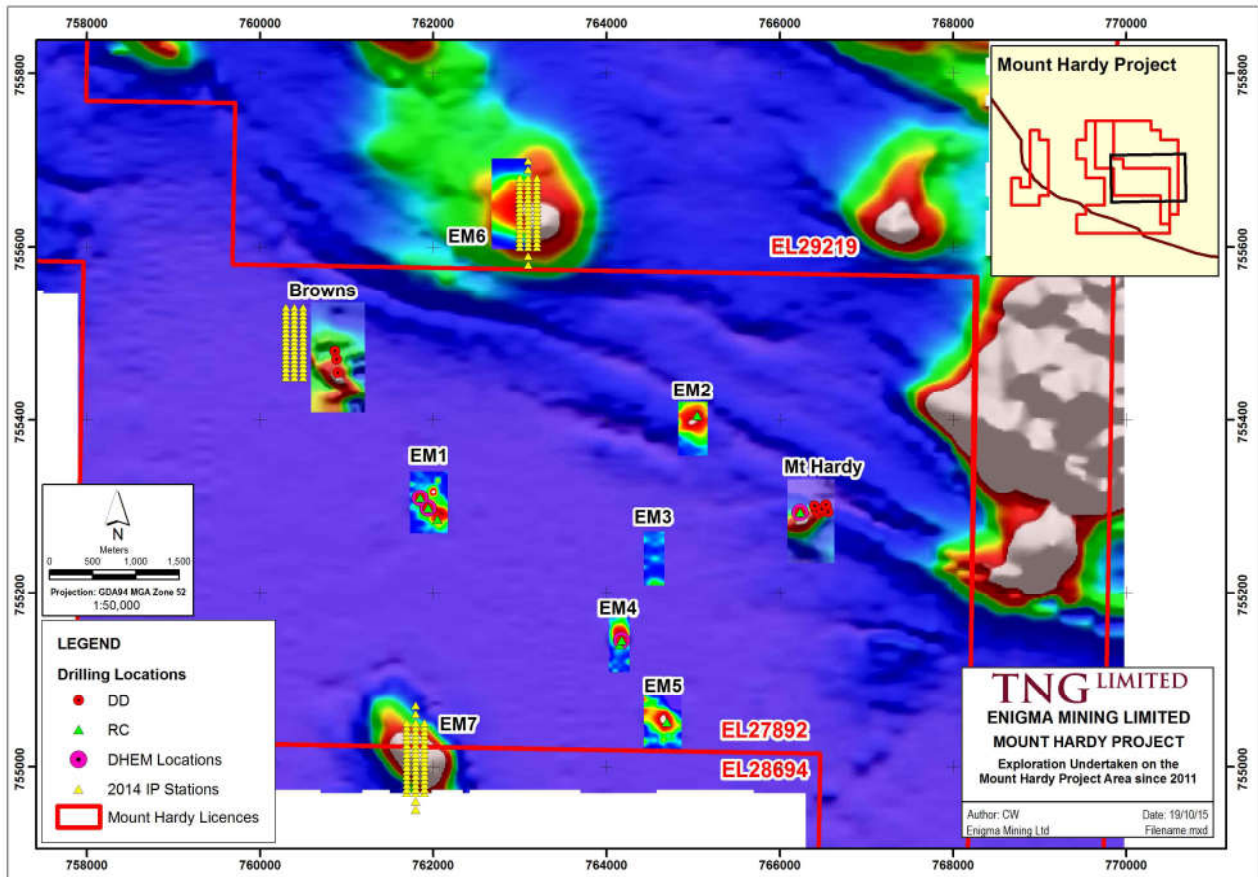


Figure 4: TNG Exploration at Mount Hardy since 2011.

Drillcore from six complete holes (13MHDDH001, 002, 005, 010 010W1 and 015) was submitted to the NTGS core library in August 2015. Molybdenite samples of the core were taken by NTGS staff for dating of the mineralisation at Mount Hardy.

A field inspection was carried out by DME officers in September 2015 and the report was appended to the 2015 Annual Report.

6. EXPLORATION COMPLETED, 2015-2016

Rehabilitation was completed in October 2015 based on the recommendations received in the Field Inspection Report. A rehabilitation report is attached in Appendix 1. Additional monitoring was undertaken in October 2016 and will be reported on in the 2017 Annual Report.

An overall assessment was carried out across the three licences during the year leading up to the fourth anniversary of EL 28694 when a reduction of blocks was required. Areas of historical drilling and soil sampling have been retained for further work across EL 28694 and EL 29219 (Figure 5).

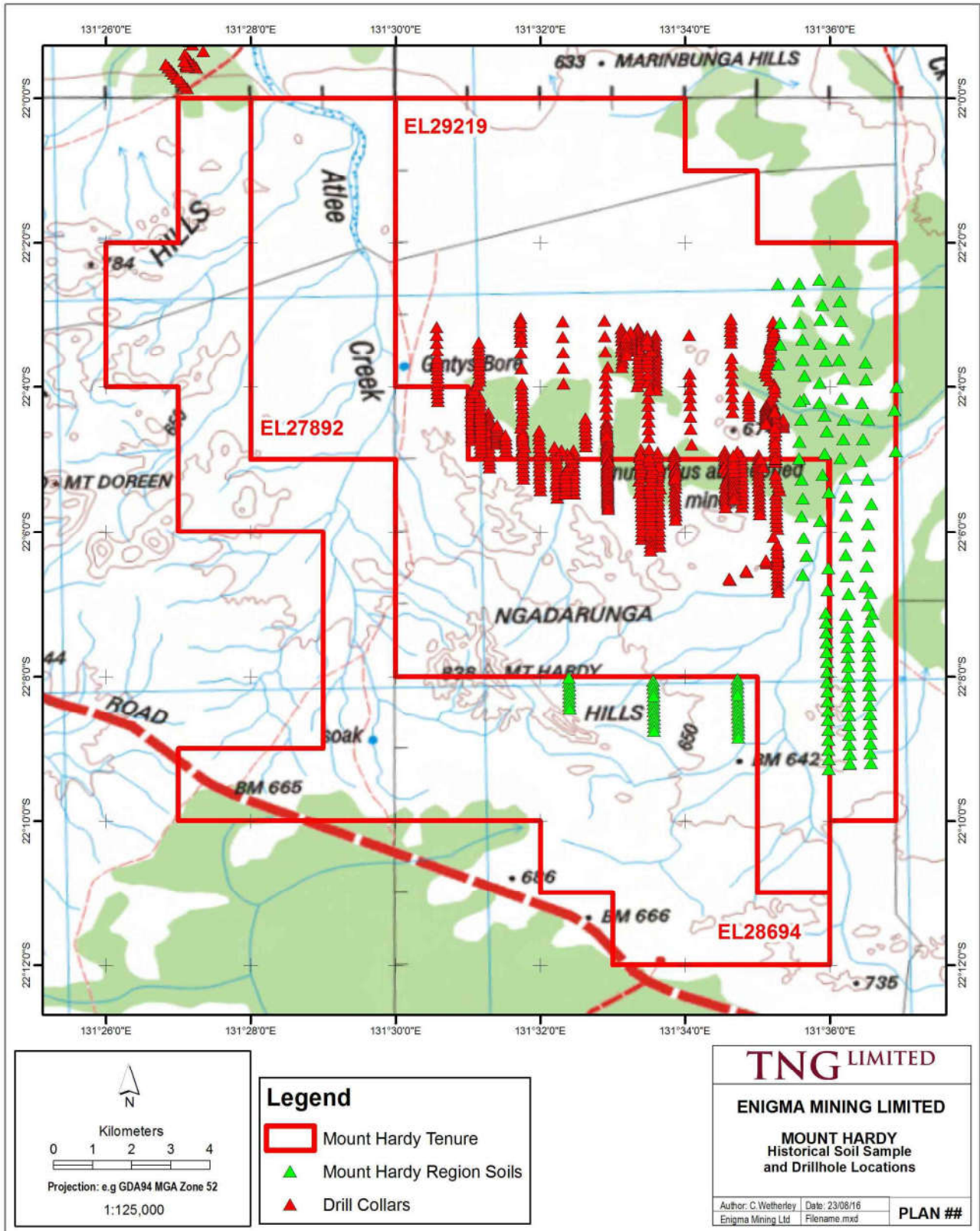


Figure 5: Historical exploration within the Mount Hardy Project area.

A programme of soil sampling was planned for several locations within the project area, (Figure 5) for June/July but it was necessary to reschedule this due to wet weather and other project requirements.

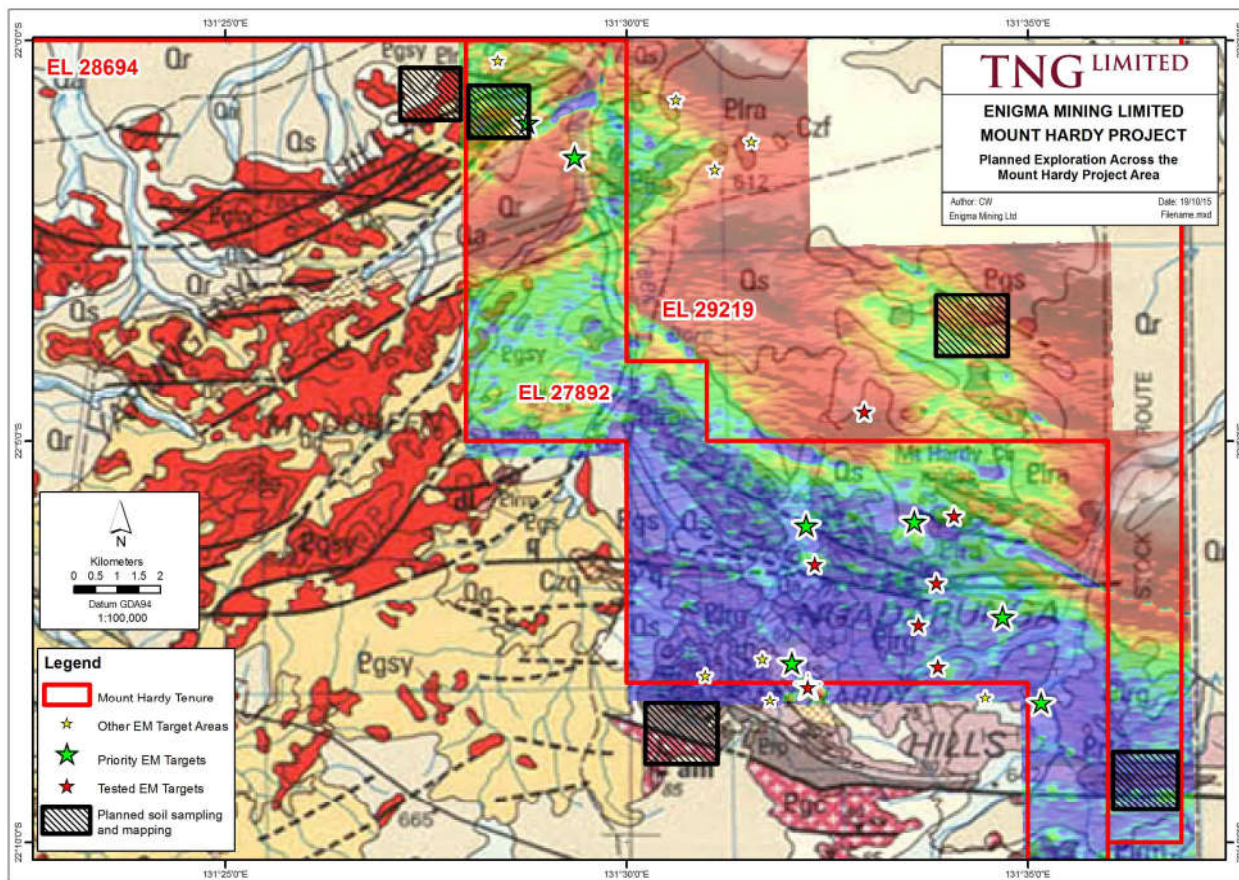


Figure 6: Location of proposed exploration target areas within the Mount Hardy Project area.

7. PROPOSED 2016-2017 PROGRAM

Rescheduled mapping and pXRF sampling will take place across the Mount Hardy Project area early in 2017. Five areas have been selected for mapping and geochemical testing (Figure 6) based on structural and geological indications that the existing known mineralisation will continue and is controlled by structure. Several of these areas are located along the north-eastern margin of the Mount Doreen granite. This intrusive crops out over the central portion of EL 28694, and may be the heat source mobilising metals within the schists of the Mount Hardy Copper Belt to the east.

It is hope that additional drill targets will be generated from this field sampling exercise which can then be included in a future drilling programme along with the existing drill targets.

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