

TNG LIMITED

ENIGMA MINING LTD

McARTHUR PROJECT

ANNUAL REPORT

9/07/12 to 8/07/13

EL 27711

Tenement/s	EL 27711	1:250 000 Sheet Name	Walhallow (SE5307)
Holder	Enigma Mining Ltd	1:100 000 Sheet Name	Kilgour (6063)
Manager	Enigma Mining Ltd	Datum	GDA94-53
Operator	Enigma Mining Ltd		
Commodity	Cu, Au, Mn		
Elements Analysed			
Keywords	Exploration programme, geochemical data compilation, historical data		
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EXECUTIVE SUMMARY

Exploration Licence 27711 was granted to Enigma Mining Limited (Enigma) on 9 July 2010. Enigma is a wholly owned subsidiary of TNG Ltd. The Licence forms part of the McArthur Project area together with ELA 30085.

The introduction of a new Exploration Manager in mid-2012 resulted in the review of all projects. The review process involved the production of base maps and databases of historical data for each project.

A proposal for a HeliTEM survey across the licence has been prepared by our geophysical consultant and a geophysical team from Furgo Airborne Surveys will likely undertake the survey.

Field work, focussing on ground checking existing anomalism and pXRF sampling will be carried out before the beginning of the wet season with the HeliTEM scheduled for 2014. It is hoped that drill targets will be generated from the HeliTEM which can be followed up in further years.

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1. INTRODUCTION

Exploration Licence 27711 was granted to Enigma Mining Limited (Enigma) on 09/07/2010. Enigma is a wholly owned subsidiary of TNG Ltd (TNG).

The introduction of a new Exploration Manager in mid-2012 resulted in the review of all TNG projects, compilation of base maps for field purposes and construction of a database of previous exploration data for each project and an in-depth look at previous exploration.

Major field expenditure has been reduced during the June and September Quarters this year, however Enigma expects activities to resume during October with fieldwork focusing on the ground-checking of existing anomalism, once funding/capital raising activities have been completed.

2. LOCATION AND ACCESS

EL 27711, part of the McArthur River project, is located approximately 554km south-east of Darwin, and 50km east of the sealed Stuart Highway following the Carpentaria Highway and then onto the Tablelands Highway (Figure 1). The tenement covers the far northern portion of the Walhallow (SF53-07), 1:250,000 mapsheet. It lies within the Mallapunyah Springs and McArthur River Perpetual Pastoral Lease and is subject to Native Title.

3. TENURE

Exploration Licence 27711 is part of the McArthur Project Area which together with ELA 30085 covers a total area of 68 blocks, or 223.28km². It is 100% held by Enigma Mining Limited, a wholly owned subsidiary of TNG Limited. Tenure details for EL 27711 are summarised in Table 1.

Table 1: EL 27711 tenement details.

TITLE	PROSPECT	AREA (blocks)	GRANT DATE	EXPIRY DATE
EL 27711	McArthur River	52	09/07/2010	08/07/2016

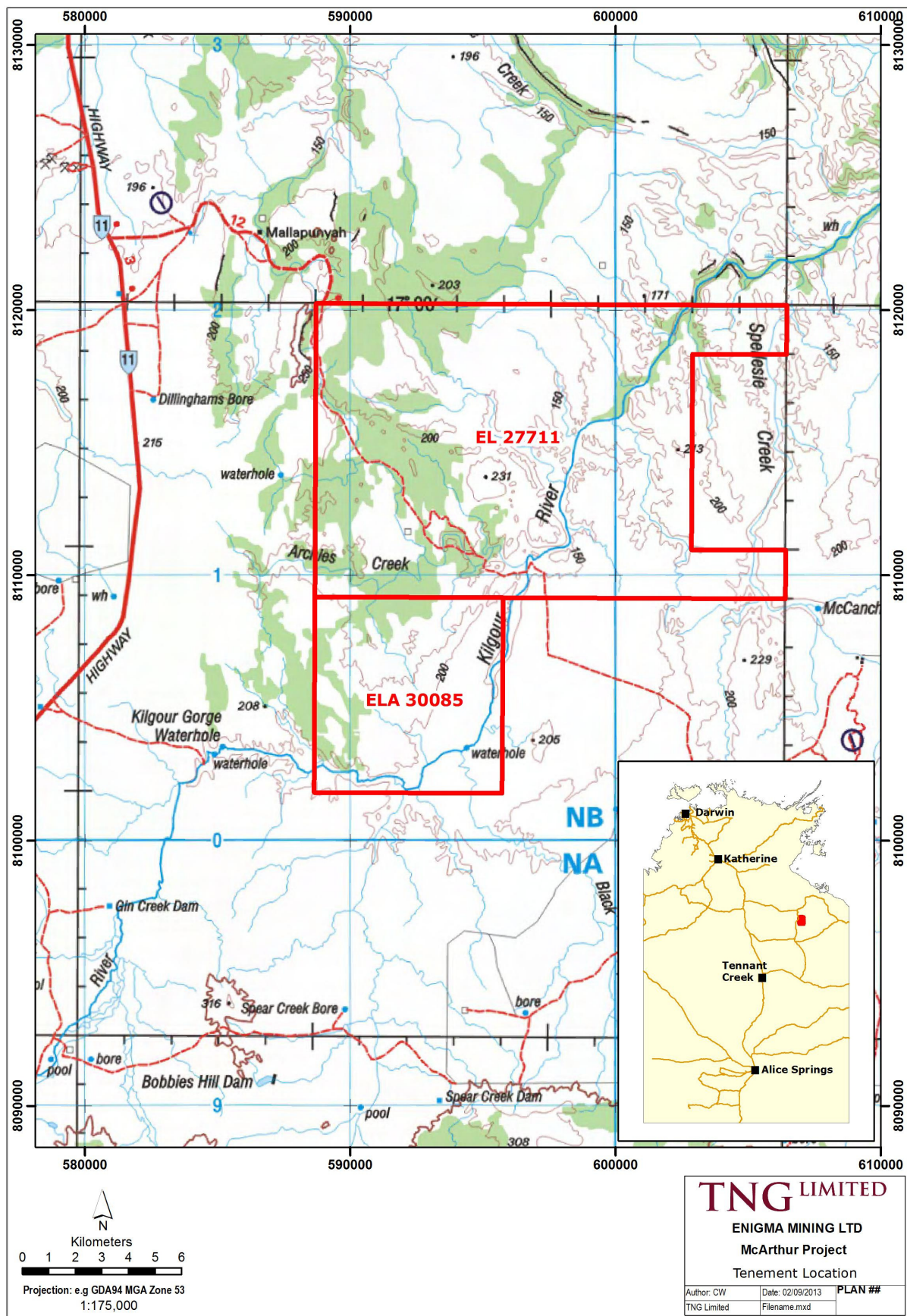


Figure 1: Location of McArthur River project area.

4. REGIONAL GEOLOGY

The McArthur river project area lies within the McArthur Basin. The McArthur Basin contains a thick platform cover sequence overlying the eastern edge of the North Australian Craton, consisting of Lower Proterozoic basement rocks (Jackson et al. 1987). The Malapunyah dome forms the majority of the local geology within the exploration licence. The project area lies in the northern portion of the WALHALLOW (SF 53-07) 1:250,000 mapsheet (Figure 2).

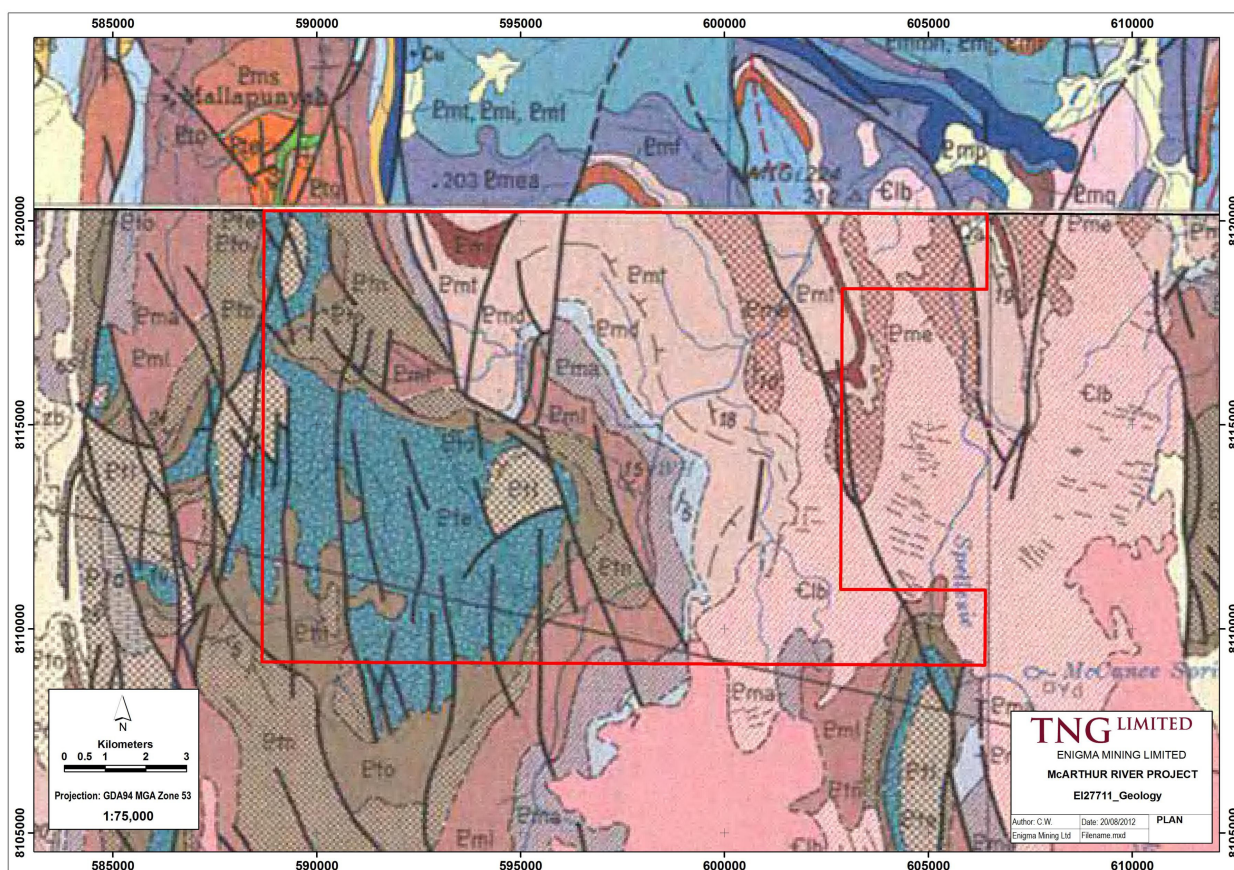


Figure 2: Regional geological setting of the McArthur project area.

The McArthur Basin sequence is divided into four major units: the roper, Nathan, McArthur and Tawallah groups.

The geology underlying the Mallapunyah area consists of units of the Tawallah Group (Mc Dermott Formation, the Sly Creek Sandstone, Settlement Creek Volcanics, Wollogorang Formation and Masterton Formation) overlain by sediments of the McArthur Group (Mallapunyah Formation, Amelia Dolomite, Tatoola Sandstone and Tooganinie Formation).

The Tawallah Group is the oldest group in the McArthur Basin consisting mainly of thick sequences of ridge-forming sandstones alternating with units of recessive volcanics and fine-grained clastics (Pietsch et al., 1991). It has a maximum thickness of 5200m and an unconformable basal contact with the Scrutton Volcanics, part of the Lower Proterozoic basement.

The McArthur Group (Figure 3) unconformably overlies the Tawallah Group and comprises a sequence of interbedded carbonates and lutites with sub-ordinate sandstones up to 4200m thick (Jackson et al., 1987). The Mc Arthur Group is subdivided into the Umbolooga (older) and Batten (younger) subgroups which are separated by a regional palaeoregolith. The Umbolooga Sub-group is host to the McArthur River lead-zinc-silver deposit.

McARTHUR GROUP	Umbloolga Subgroup	Reward Dolostone	Emx
		Barney Creek Formation	Emq
		Coxco Dolostone Member	Emp
		Teena Dolostone	Emp
		Undivided Emmerugga Dolostone	Eme
		Mitchell Yard Dolostone Member	Eme _i
		Mara Dolostone Member	Eme _a
		Myrtle Shale	Emf
		Leila Sandstone	Emi
		Tooganinie Formation	Emt
		Tatoola Sandstone	Emd
		Amelia Dolostone	Ema
		Mallapunyah Formation	Eml
	Em	Masterton Sandstone	Ems

Figure 3: McArthur Group, within the McArthur Basin, NT.

5. PREVIOUS EXPLORATION

The Kilgour River region has been partially explored for a variety of commodities including gold, copper, lead, zinc and diamonds. This exploration is summarised below and targets generated from previous exploration are shown in Figure 4. A more detailed summary can be found in Annual Report, EL27711, 2011 (Wetherley & Moyle, 2011).

- From 1966 to 1967 the Mallapunyah Dome was extensively rock chipped and soil sampled by Australian Geophysical Limited. Geophysical surveys were also carried out.
- From 1967 to 1976 Carpentaria Exploration Pty Ltd undertook stream sediment, soil and rock chip sampling along with a minor geophysical programme.
- In the years following A.O Australia, Shell Company of Australia and Perilya mines returned to the Kilgour prospect however only completed very minor work.
- From 1993 – 1995 Mt Isa completed an extensive stream sediment program over the whole tenement area. Cu, Mn and Zn all returned anomalous results.
- In later years Aberfoyle Resources (1997) and Kiana Project Pty Ltd (2006 – 2007) were granted tenements in the McArthur River area.

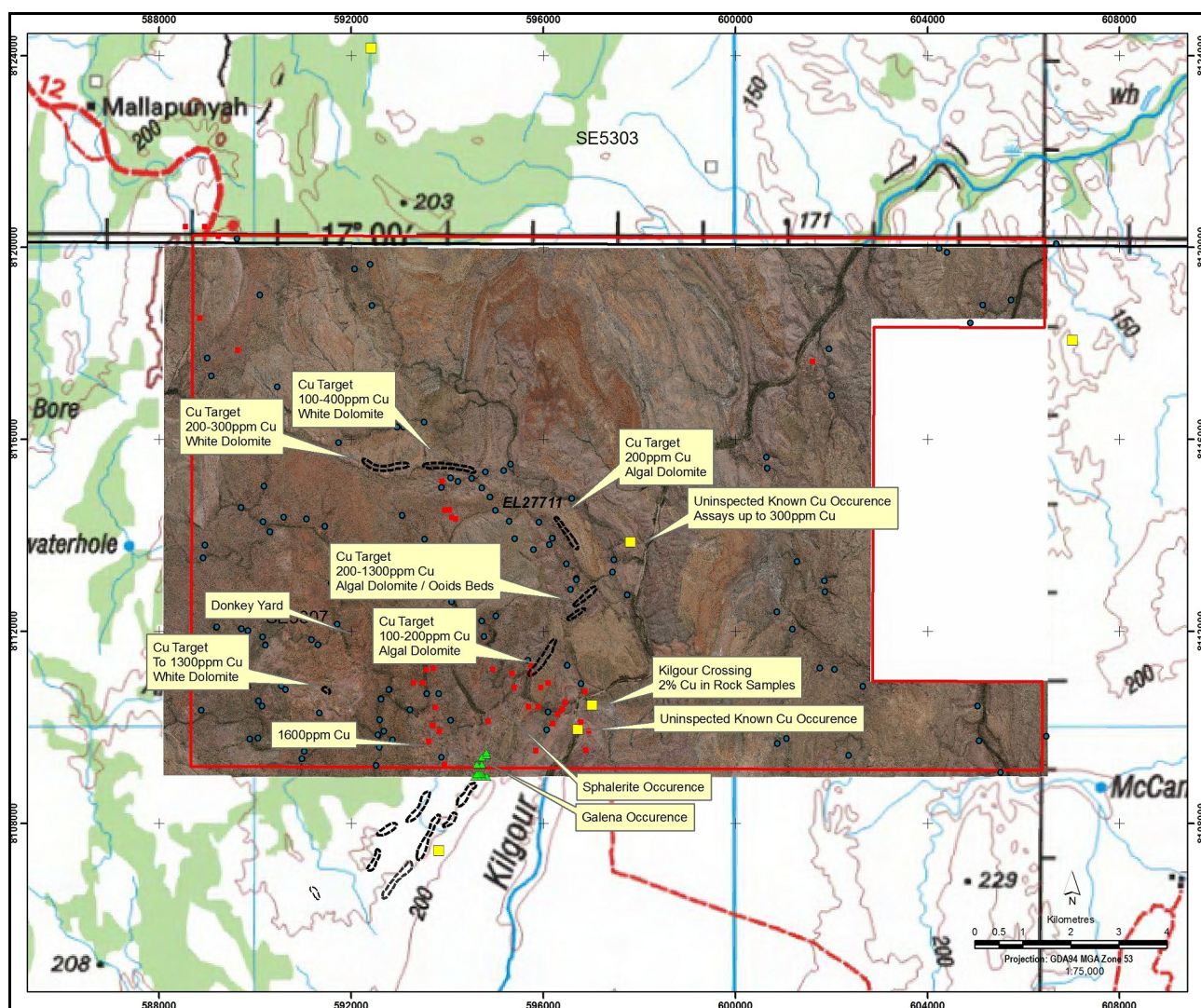


Figure 4: Summary of historical exploration results within EL 27711.

6. WORK COMPLETED 2012-2013

The introduction of a new Exploration Manager in mid-2012 resulted in the review of all TNG projects, compilation of base maps with topographic and geological underlays for field purposes and construction of an excel database of previous exploration data for each project. The base maps are included as Appendix 1.

Due to a significant amount of work being carried out on Enigma's Mount Peake and Mount Hardy projects limited work was undertaken on EL 27711.

Major field expenditure was reduced during the June and September Quarters this year, however Enigma expects activities to resume during October, once funding/capital raising activities have been completed.

Review of historical reports has outlined the Woologorang Formation within the Tawallah Group as being the sequence with prospective lithologies (silty dolomite, bituminous siltstone, shale and algal chert), geophysical anomalism, and also anomalous base metal geochemistry to host mineralisation of this type. The extent of the Woologorang Fm is shown on Figure 5, extending through EL 27711 and into ELA 30085. The sequence wraps around the Mallapunyah Dome

(basement volcanics), dipping at shallow to moderate angles away from the centre and is exposed over some 17km of strike extent.

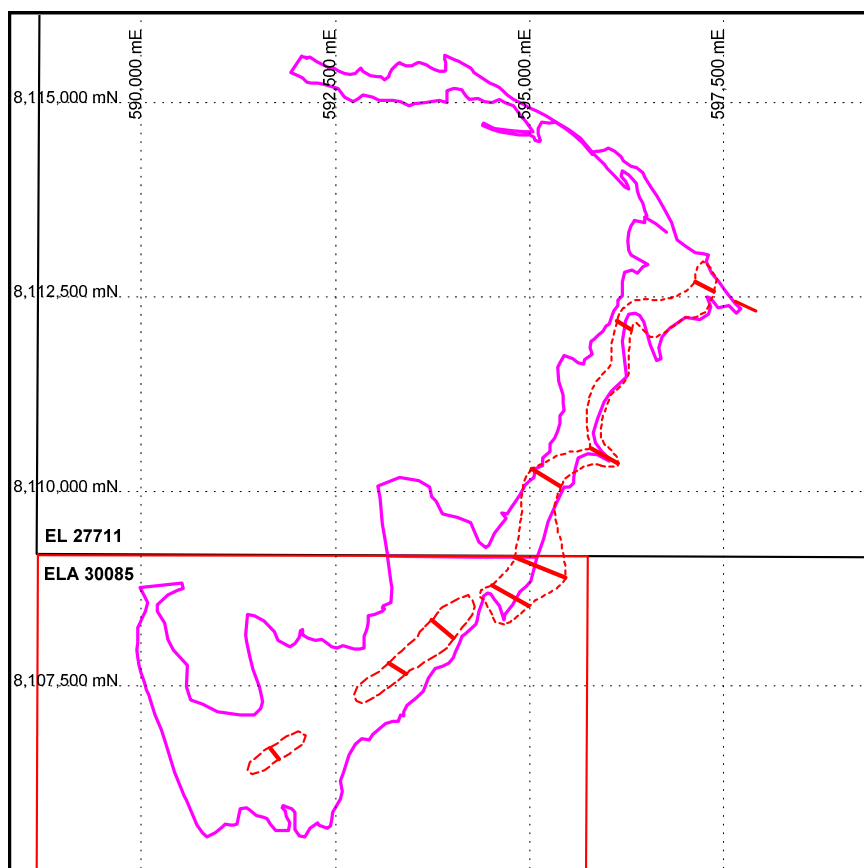


Figure 5: Location of prospective stratigraphy (magenta, Woollogorang Formation Tawallah Group) and IP geophysical anomalies (red).

Two important regional structures (the Tawallah and Mallapunyah Faults) transect the northern and eastern portion of this sequence within EL 27711. Regionally these faults mark the western edge of the Batten Trough, and are seen as similar to the Emu Fault which forms its eastern boundary. The Emu Fault zone at the McArthur River mine is considered to provide the conduit for base metals to enter the ore host sequence. All Australian Sedex deposits lie within a few kilometres of such faults.

Specific interest has been placed on previous exploration by Australian Geophysical Limited (McMahon, 1967). Also shown on Figure 5 are the portions of IP geophysical survey lines (completed by AGPL) where anomalies were interpreted. Areas of low resistivity and coincident moderate to high frequency effect (equivalent to chargeability in time domain surveys used today) are shown in red. This corridor is nearly continuous, nine kilometres long and indicative of sulphide content in the mid to upper portions of the Woollogorang Fm.

Figure 6 shows the areas with anomalous soil geochemistry, as outlined by TNG work together with extensive sampling conducted by AGPL in 1967. AGPL -80 mesh soil sample spacings were mostly 36m (120 feet) along lines generally 152m (500 feet) apart, covered all of the Woollogorang Fm exposure, and have AAS results for copper, zinc and lead only. TNG sampling was mostly rock samples with analysis by ICP OES technique for a 33 element suite. Anomalous thresholds used are 250ppm for copper and zinc and 100ppm for lead. Several large multielement anomalous areas are outlined, particularly along the eight kilometre eastern margin of the dome. The central zone (straddling the 27711/30085 tenement boundary) has a 3000m long zinc anomaly that is up to 450m wide, with results up to 1400ppm Zn that has coincident Pb (to 670ppm), partially coincident Cu and associated IP

anomalies. The northeastern anomalous zone has zinc to 600ppm, 1000ppm Cu and 520ppm Pb and coincident (down dip) IP over 800m of strike. In the southwest a 1200m long zone of Cu-Zn-Pb anomalism has results of up to 800ppm Zn and 1150ppm Cu.

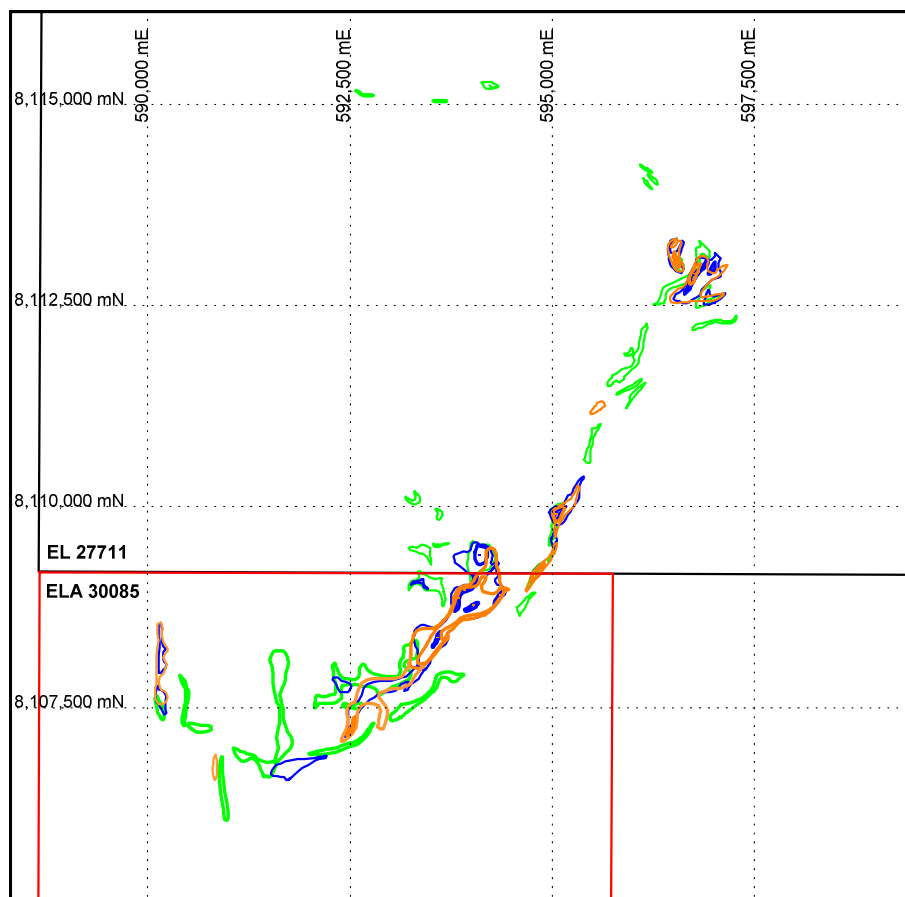


Figure 6: Geochemical anomalies – zinc (orange >250ppm, >500ppm Zn), lead (>100ppm Pb), and copper (>250ppm Cu) - in the central McArthur River project area.

7. PROPOSED 2013-2014 PROGRAM

The McArthur River project has a sequence of Middle Proterozoic sediments exposed along the northern, eastern (within EL 27711) and southern (within ELA 30085) flanks of the Mallapunyah Dome that are prospective for base metal (Zn-Pb-Ag-Cu) mineralisation, of a type similar to the HYC deposit being mined at McArthur River some 60 kilometres to the north.

The Woollogorang Formation, within the Tawallah Group (which underlies the McArthur Group), has numerous areas of Zn-Pb-Cu geochemical anomalism (as outlined by previous explorers and also shown by work completed by TNG within EL 27711) over around 15 kilometres of strike extent. It also has had limited geophysical work completed (ca. 20 IP lines) which indicate consistently low resistivity and moderate to high chargeability/frequency effect associated with the same middle/upper portion of the Woollogorang Formation. This geophysical response is likely to relate to sulphide content within the shales and dolomites of the upper Woollogorang Formation and which may be indicative of Zn-Pb-Ag-Cu mineralisation.

TNG has completed a review of all work completed in the vicinity of the Mallapunyah Dome in August 2013, and this resulted in the ground acquisition of ELA 30085. Field work, focussing on ground checking existing anomalism and gaining a better understanding of the controls on mineralisation in the area is likely to be completed prior to the 2013/14 wet season. In 2014 it is intended to complete geophysical surveys (HELITEM and/or IP) along the prospective stratigraphic zones to highlight specific drill targets for testing later in further years.

7.1 Proposed Expenditure

The proposed expenditure for the next reporting year is shown in Table 3.

Table 2: Proposed Expenditure.

EXPENDITURE	AMOUNT(\$)
Ground checking, mapping.	10,000
HeliTEM Survey and Interpretation	30,000
Reporting, target generation, drafting	7,000
Office admin, tenement management, travel etc	3,000
TOTAL	\$50,000

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