

TNG LIMITED

ENIGMA MINING LTD

McARTHUR RIVER PROJECT

Re-Analysis of Samples from AGPL Diamond Drillholes MN1 & MN2

Tenement/s	EL27711	1:250 000	Walhallow (SE5307)
Holder	Enigma Mining Ltd	Sheet Name	
Manager	N/A	1:100 000	Kilgour (6063)
Operator	Enigma Mining Ltd	Sheet Name	
Commodity		Datum	GDA94-53
Elements Analysed	Au, Pt, Pd, Ag, Al, As, Ba, Be, Bi, Ca, Cd, Co, Cr, Cu, Fe, Ga, K, La, Mg, Mn, Mo, Na, Ni, P, Pb, S, Sb, Sc, Sr, Th, Ti, Tl, U, V, W, Zn		
Keywords	McArthur, anomalous Zn, resample, Australian Geophysical Pty Ltd, MN1, MN2		
Compiled by:	C. Wetherley – Administrative Geologist and Tenement Manager (cath.wetherley@tngltd.com.au)		
Reviewed by:	K. Grey – Exploration Manager (kim.grey@tngltd.com.au)		
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1. INTRODUCTION

The McArthur Project area lies approximately 550km south-east of Darwin and 60km south of the world-class McArthur River Zn-Pb-Ag-Cu Mine. In November 2013 core from DDHMN1 and DDHMN2, drilled by Australian Geophysical Pty Ltd (AGPL) in 1969, and the only historical drillholes within the current tenure, was relogged and resampled. Original core logging information was obtained from open file documents from the NTGS (CR1970-0005), and the core is stored at the NTGS Core Library in Darwin.

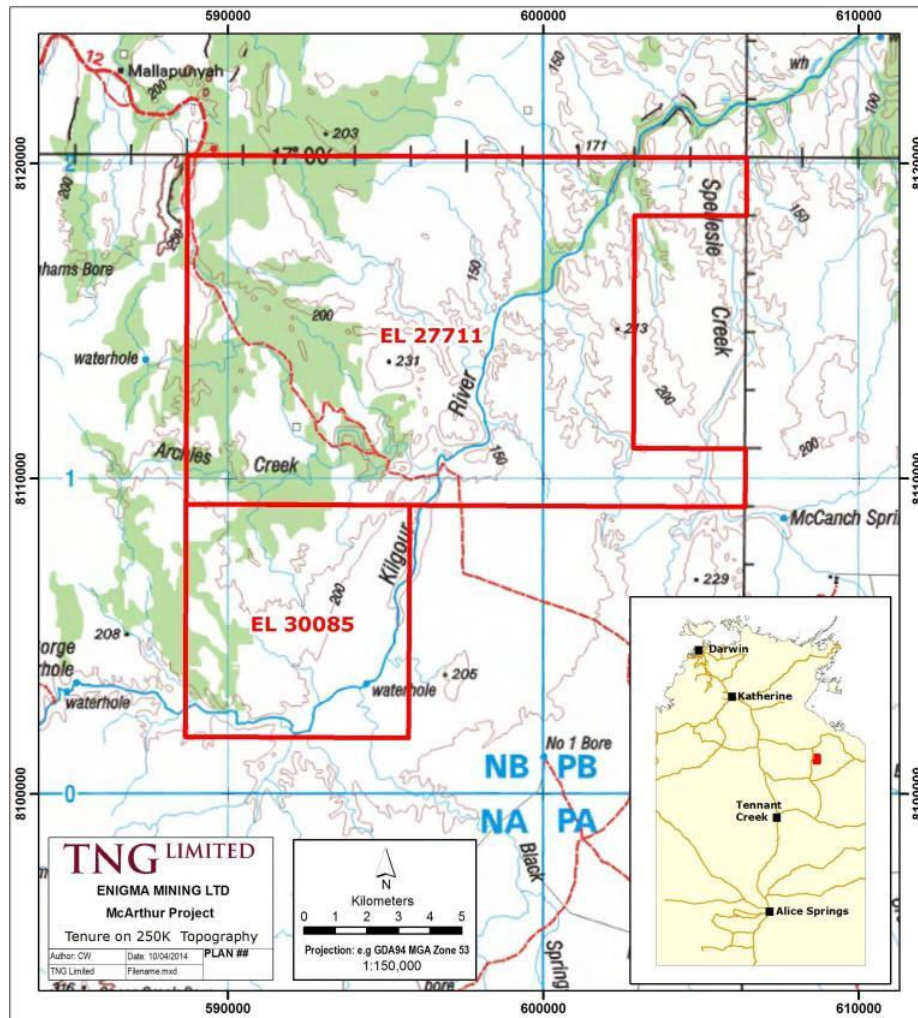


Figure 1: Location of McArthur project area.

2. TENURE

The McArthur Project comprises two Exploration Licence's 27711 and 30085 covering a total area of 223km². These licences are 100% held by Enigma Mining Limited, a wholly owned subsidiary of TNG Limited. Tenure details are summarised in Table 1.

Table 1: Tenure details for the McArthur Project.

Title	Area (blocks)	Grant Date	Expiry Date
EL 27711	52	9/07/2010	8/07/2016
EL 30085	16	11/04/2014	10/04/2020

3. DRILLHOLES MN1 AND MN2

Diamond Drill Holes MN1 and MN2 (Figure 2; Table 2) were drilled by Australian Geophysical Pty Ltd (AGPL) in 1969, and are the only holes drilled to date on TNG's McArthur River Project tenure. Original core logging information was contained in open file documents from the NTGS (CR19700005), and the core is stored at the NTGS Core Library in Darwin. Coordinates are $\pm 100\text{m}$ accuracy.

Table 2: Drill Hole details.

Hole ID	Easting	Northing	Dip	Depth (feet)	Depth (m)
DDHMN1	594,225	8,107,980	-90	727	221.59
DDHMN2	595,950	8,110,475	-90	602	183.49

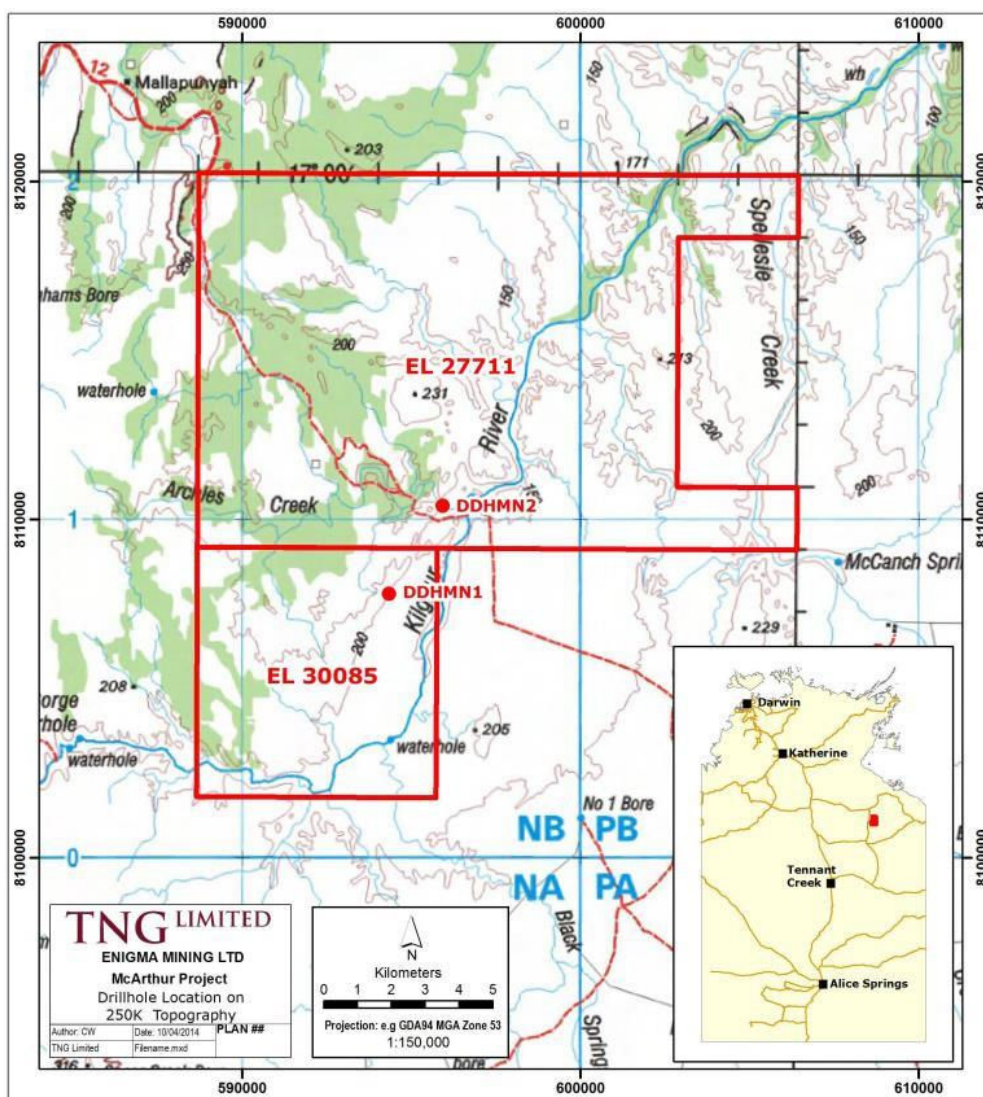


Figure 2: Location of AGPL's DDHMN1 and DDHMN2.

4. RELOGGING AND RESAMPLING

TNG relogged and resampled the core during November 2013. Both onsite portable XRF analysis and ICP laboratory analysis of cut core was completed. Petrographic descriptions were completed for three samples to determine the suite of sulphide minerals present. The petrographic report is attached in Appendix 1.

Mineralisation in DDHMN1 is associated with the lower part of the Wollogorang Formation, black shale/argillite with abundant carbonaceous material, dolomitic siltstones and dolomite with very fine disseminated pyrite, sphalerite and chalcopyrite (confirmed by petrographic work). In DDHMN2, mineralisation is again hosted by the lower Wollogorang Formation with brecciated dolomite carrying pyrite and chalcopyrite in breccia matrix and clasts.

A total of 72.85 metres of core was cut and sampled on original marked "footages". Samples were analysed by ALS Laboratories in Perth by ICP technique for a 36 element suite of elements, including Cu, Pb, Zn, Ag and Au. Best results are summarised in Table 3 and a full set of results are included in Appendix 2.

Table 3: Best assay results from DDHMN1 and DDHMN2.

Hole_ID	From (m)	To (m)	Interval (m)	Zn (%)
DDHMN1	99.67	104.85	5.18	0.28
Incl.	99.67	101.80	2.13	0.30
and	103.63	104.85	1.21	0.56
DDHMN1	106.68	108.51	1.82	0.11
DDHMN1	114.00	116.74	2.74	0.38
DDHMN1	121.31	122.22	0.91	0.16
Hole_ID	From (m)	To (m)	Interval (m)	Cu (%)
DDHMN2	119.48	122.53	3.05	0.22
Incl.	119.48	120.4	0.91	0.37
and	121.62	122.53	0.91	0.32

Zinc-lead mineralisation occurs over a 23 metre interval in hole DDHMN1 with four zones having >0.1% Zn values. The thickest zone comprises over five metres (17 feet) of mineralisation averaging 0.28% Zn. Individual zones of mineralisation (at a 0.1% Zn Cut-off) of 3-9 feet thickness have zinc average values from 0.16% to 0.56% Zn.

All significant mineralisation noted is confined to the Wollogorang Formation, and particularly (in DDHMN1) to the central and lower portions of the informally-mapped "Ovoid Beds" unit. Sulphides are very fine grained, but seen both as disseminations and in thin stratiform layers.

Lead results follow closely the zinc anomalism with a maximum value of 930ppm Pb. Sulphide content varied from 2 to 10% over a 29 metre interval in DDHMN1, encompassing all intervals listed in Table 3.

Copper mineralisation is only seen in DDHMN2, where it is hosted by brecciated Wollogorang dolomites. A 3.05m interval contains visible chalcopyrite and averages 0.22% Cu, having a maximum value of 0.67% Cu.

The core was also analysed using a portable XRF device, providing base metal analysis at 1/2/3/5 foot intervals to complement the original 1969 5 foot sampling. Highlight results include: **4.72m @ 0.33% Zn and 3.06m @ 0.14% Zn in DDHMN1 and 1.52m @ 0.87% Cu in DDHMN2**. The highest values returned were 1.38% Zn and 1.74% Cu. Results are included in Appendix 2.

The original 1969 AGPL analyses for hole DDHMN1 returned a broad interval, encompassing the above, of 26.82m @ 0.14% Zn and 250ppm Pb (from 95.71 to 122.53m).

Both holes were drilled in a program focussed on copper and employing a "Redbank-style" volcanic-hosted breccia pipe geological model. The targeted Gold Creek Volcanics, which overlie the Wollgorang Formation, host most of the mineralisation at the Redbank Copper Mine (200 kilometres to the east). At the time, while the McArthur River deposit had been outlined, the only significant base metal mining in the McArthur Basin district was at Redbank.

All significant Zinc mineralisation reported here is hosted by the Wollgorang Formation. It is stratiform and stratabound, preferentially developed in pyritic and bituminous shale units, and found as a fine grained sphalerite-galena-chalcopyrite assemblage, as is the ore at the McArthur River Mine. The late Palaeoproterozoic rocks of northwest Queensland and the Northern Territory host five world class deposits of this Sediment Hosted Zn-Pb-Ag style.

Enigma are continuing exploration across the licence areas.