



Emu East Project

PARTIAL RELINQUISHMENT REPORT

Exploration Licence EL32466

Period 30 March 2021 to 29 March 2025

Tenement Operator:	Redbank Operations Pty Ltd and Maverick2 Pty Ltd
Tenement Holder:	Redbank Operations Pty Ltd
Report Type:	Partial Relinquishment
Tenements:	EL32466
Author:	Greg Wilson
Date of Report:	10/5/2024
Target Commodity:	Copper and Zinc
Datum/Zone:	GDA1994 / MGA 53
1:250 000 map sheets:	Robinson River SE5304, Bauhinia Downs SE5303, Walhallow SE5307
1:100 000 map sheets:	Borrooloola 6165, Wearyan 6265, Glyde 6164, Foelsche 6264, Lancewood 6163, Surprise Creek 6263

Distribution:

Department of Industry, Tourism and Trade (DITT)

NT Minerals Ltd

Maverick2 Pty Ltd

ABSTRACT

Exploration licence EL32466 recently completed the end of its fourth operational year on March 29, 2025. This licence forms part of amalgamated reporting group GR548, together with EL32464, EL32465, EL32467, EL32468, EL32469, EL32470, EL32471 and EL32873, referred to as the Redbank West Project. The tenements are held by Redbank Operations Pty Ltd, a wholly owned subsidiary of NT Minerals Ltd (“NTM”).

In late-November 2024, NTM entered into an option agreement with Maverick2 Pty Ltd whereby Maverick2 acquired a 20% interest in four of the Redbank West tenements: EL32464, EL32465, EL32466 and EL32467, referred to as the Emu East Project. Maverick2 can earn an additional 31% (cumulative 51%) by expending \$500,000 on Exploration Expenditure within 24 months and a further 39% by expending an additional \$2,000,000 within 36 months (cumulative 90%). A partial reduction for EL32466 of fifteen blocks to 235 blocks was completed.

The tenement group is located south and southeast of the township of Borroloola within the district of the McArthur Basin prospective for sediment-hosted copper and zinc within units of the Tawallah Group and McArthur Group, the area is also considered prospective for diamond and manganese. The exploration focus of Redbank Operations Pty Ltd has been for sediment-hosted style mineralisation analogous to the McArthur River Deposit, located about 7 km west of EL32464. Diamonds were mined at the Merlin Mine, located 9 km west of EL32466, and breccia-type copper was mined at Sandy Flat Mine, located 150 km east of EL32465.

Over the course of four years, NT Minerals and Maverick2 have completed desktop studies relating to data compilation, historic data reviews and helicopter supported regional scale reconnaissance sampling programs. However, no ground-based exploration activities were completed on the fifteen blocks that are the subject of this relinquishment report.

Disclaimer

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1. INTRODUCTION

Tenement EL32466 forms part of amalgamated reporting group GR548 together with tenements EL32464, EL32465, EL32467, EL32468, EL32469, EL32470, EL32471 & EL32873. The tenement group covers a total area of 5,625.12 km² (1,786 blocks) and are held by Redbank Operations Pty Ltd, a wholly owned subsidiary of ASX-listed NT Minerals Limited.

In late-November 2024, NTM entered into an option agreement with Maverick2 Pty Ltd whereby Maverick2 acquired a 20% interest in four of the Redbank West tenements: EL32464, EL32465, EL32466 and EL32467, referred to as the Emu East Project. Maverick2 can earn an additional 31% (cumulative 51%) through exploration expenditure of \$500,000 within 24 months and a further 39% (cumulative 90%) through expenditure of an additional \$2,000,000 within 36 months (5 years total). Maverick2 has been nominated as the operator for these tenements, which are now collectively referred to as the Emu East Project (Figure 1). A partial reduction for EL32466 of fifteen blocks to 235 blocks was completed.

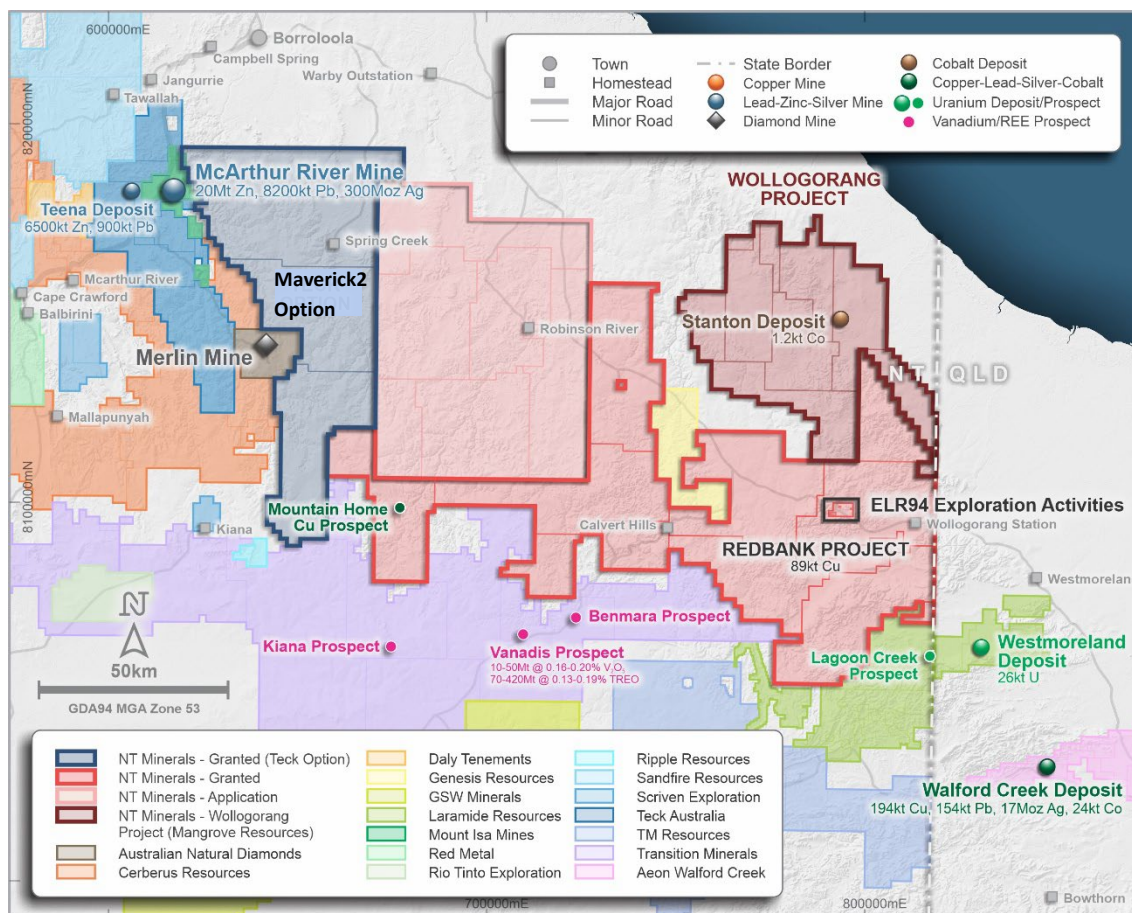
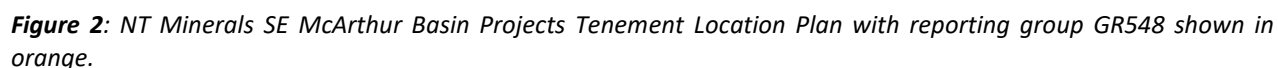


Figure 1: NT Minerals SE McArthur Basin Projects with location of Emu East Project shown in blue.

Exploration Licence EL32466 is located south and southeast of the township of Borroloola and immediately east of the Merlin Diamond Mine (see Figure 1 and Figure 2). Primary access to the project is via the access road to Spring Creek Homestead and then local station tracks.



Exploration licence EL32466 is located within the Spring Creek (PPL687) Pastoral Lease, refer to land use map in Figure 3.

Topography is dominated by escarpment country with a maximum elevation of 226m, often with deeply incised drainage. The well-developed dendritic drainage network drains to the north-east ultimately into the Gulf of Carpentaria. The biggest geomorphologic feature is the Bukalara Sandstone Plateau on the western side of tenements, which makes access difficult in the northwest. Vegetation consists mostly of woodland and native grasses that struggle to support cattle grazing.

In late-November 2024, Maverick2 acquired a 20% interest in the Emu East Project. Maverick2 can earn an additional 31% (cumulative 51%) through exploration expenditure of \$500,000 within 24 months and a further 39% through expenditure of an additional \$2,000,000 within 36 months (cumulative 90%). Maverick2 has been nominated as the operator for these tenements. A partial reduction for EL32466 of fifteen blocks to 235 blocks was completed, refer Figure 4.

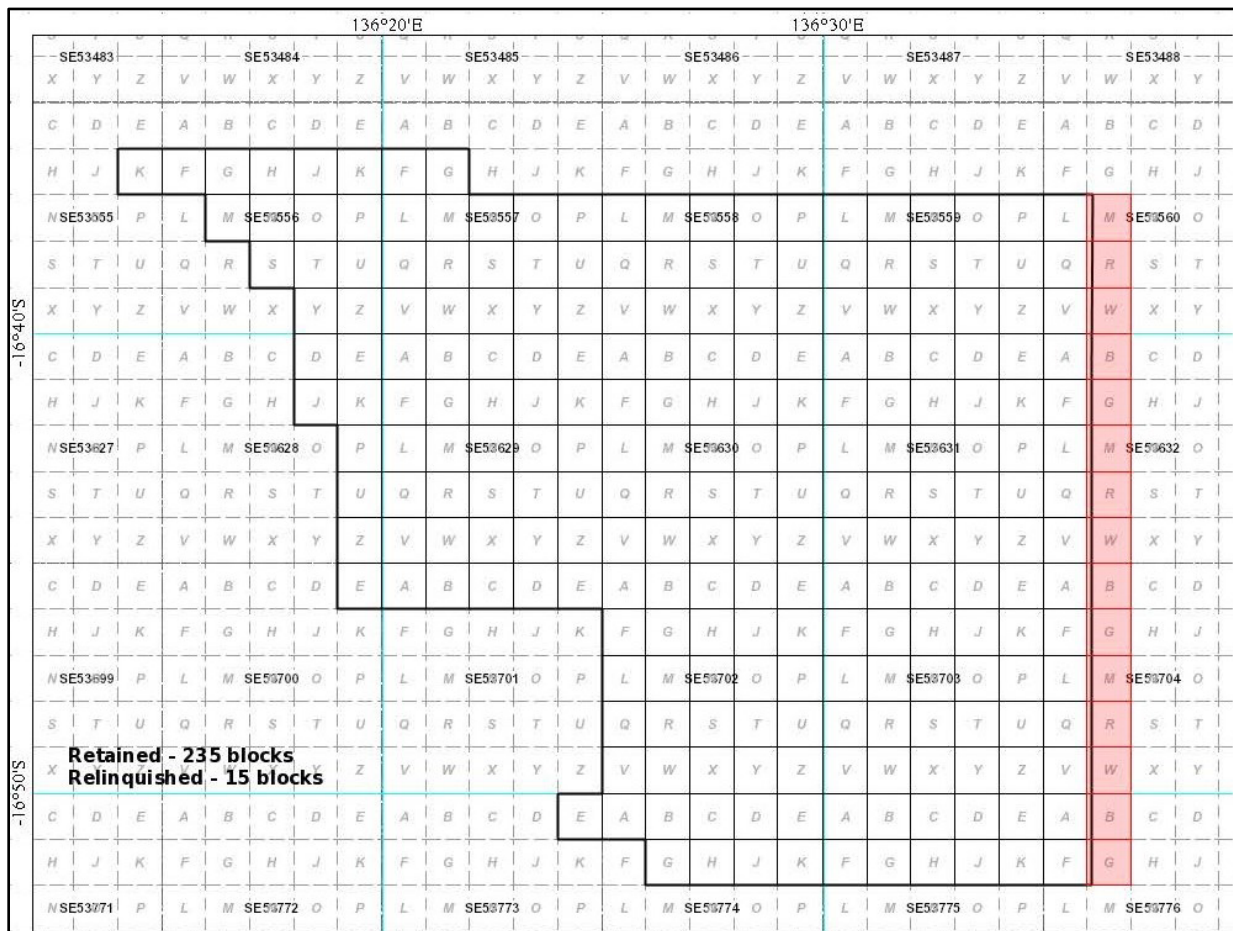


Figure 4: EL32466 - showing retained and relinquished blocks.

2. GEOLOGY AND MINERALISATION

2.1 Regional Geology

The McArthur Basin is a large intra-cratonic basin exposed over 180,000km², host to the world-class McArthur River lead-zinc deposit (227 Mt grading 9.2% zinc, 4% lead, 0.2% copper, and 41g/t silver) approximately 7 km west of EL32464 (Figure 5). Within the district, matrix hosted copper mineralisation associated with andesitic-clast dominant breccia pipes has been historically mined at Redbank and in more modern times, at Sandy Flat. Copper and uranium mineralisation is recognised within the basal Westmoreland Conglomerate Formation to the southeast of the tenement group. The Merlin Diamond field is approximately 9 km west of the tenement group.

Curiously, Redbank breccia-hosted copper deposits have no apparent zinc anomalism even though these breccia-hosted copper deposits are positioned between two world class zinc deposits, Century, and McArthur River, see Figure 5. This region is also part of the first order control for the localisation of large sedimentary-hosted base metal deposits associated with the 170 km depth contour of the Lithosphere Asthenosphere Boundary (LAB) (Hoggard et al, 2020).

The 1815-1450 Ma McArthur Basin located along the eastern edge of the North Australian Craton and comprises of Proterozoic-aged carbonate-siliciclastic sequence and minor volcanic rocks (Plumb & Wellman, 1987), of the Tawallah, McArthur, Nathan, and Roper groups (Rawlings, 1999; Ahmad et al, 2013). Deposition took place in intra-cratonic setting, ranging from fluvio-lacustrine to shallow marine (Ahmad et al 2013). The McArthur Basin unconformably overlies the Murphy Province to the south, Arnhem province to the northeast and Pine Creek Orogen to the west (Ahmad et al 2013). In the reporting group area, the basin sits on the crystalline basement of Murphy Inlier.

The basin architecture of McArthur Basin is controlled by strike-slip movements on major pre-existing basement faults (Jackson, 1982) and evolved during numerous extensional and crustal shortening events. During the Isan Orogeny, significant inversion across the McArthur Basin took place, with uplift and erosion that influenced in cessation of sedimentation.

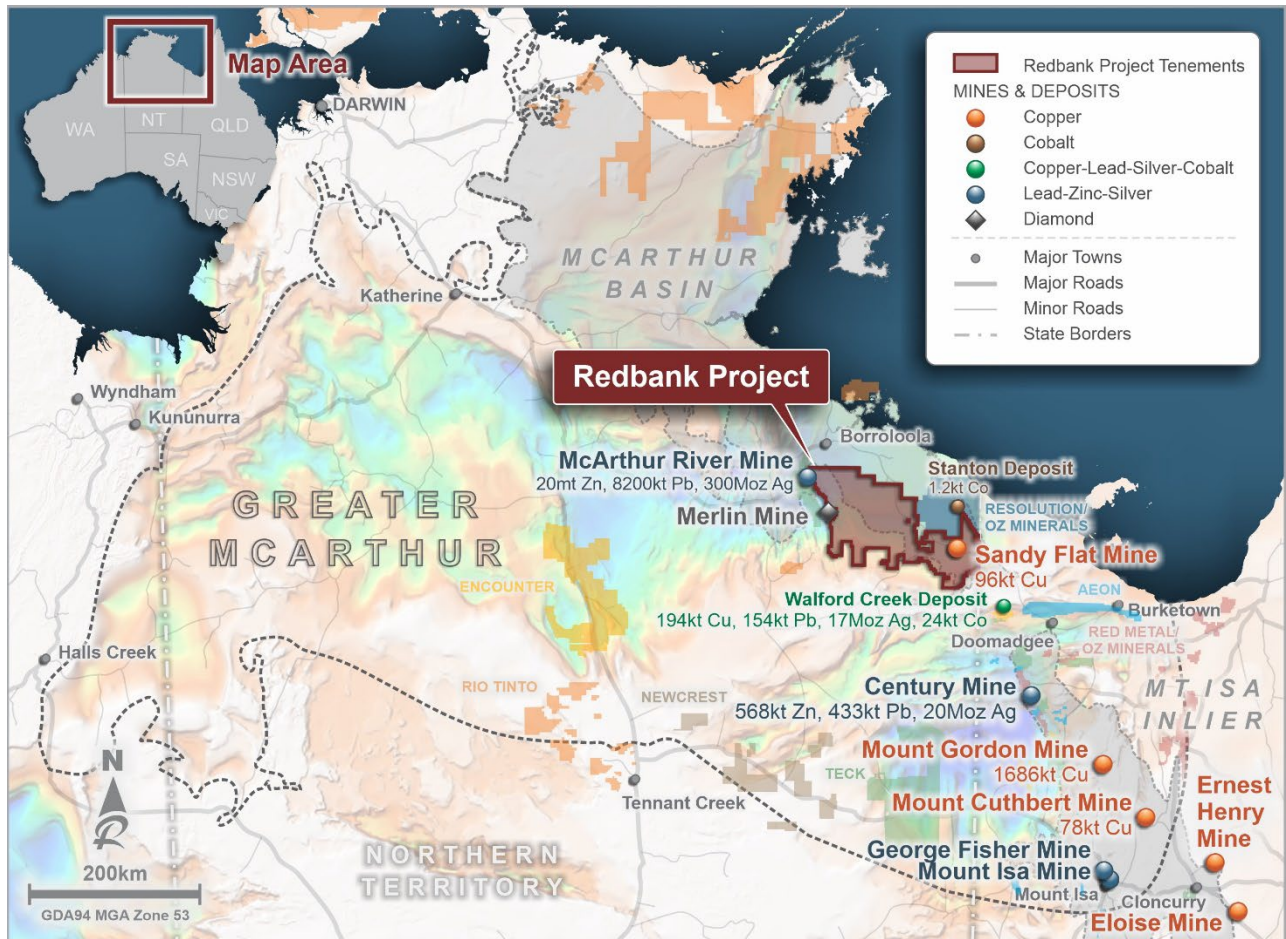


Figure 5: Location Map of the Redbank Project in relation to major deposits in the McArthur Basin and surrounding area (Last update: 2021).

2.2 Tenement Geology

One of the most prospective areas of the Emu East Project is the Palaeoproterozoic-aged, Tawallah Group stratigraphy that outcrops as a horst-like structure near the junction of the Emu and Robinson Faults with the Calvert Fault, and near the Calvert Hills Homestead (EL32469 and EL32471) and interpreted to exist beneath a cover sequence of younger stratigraphy elsewhere (Figure 6).

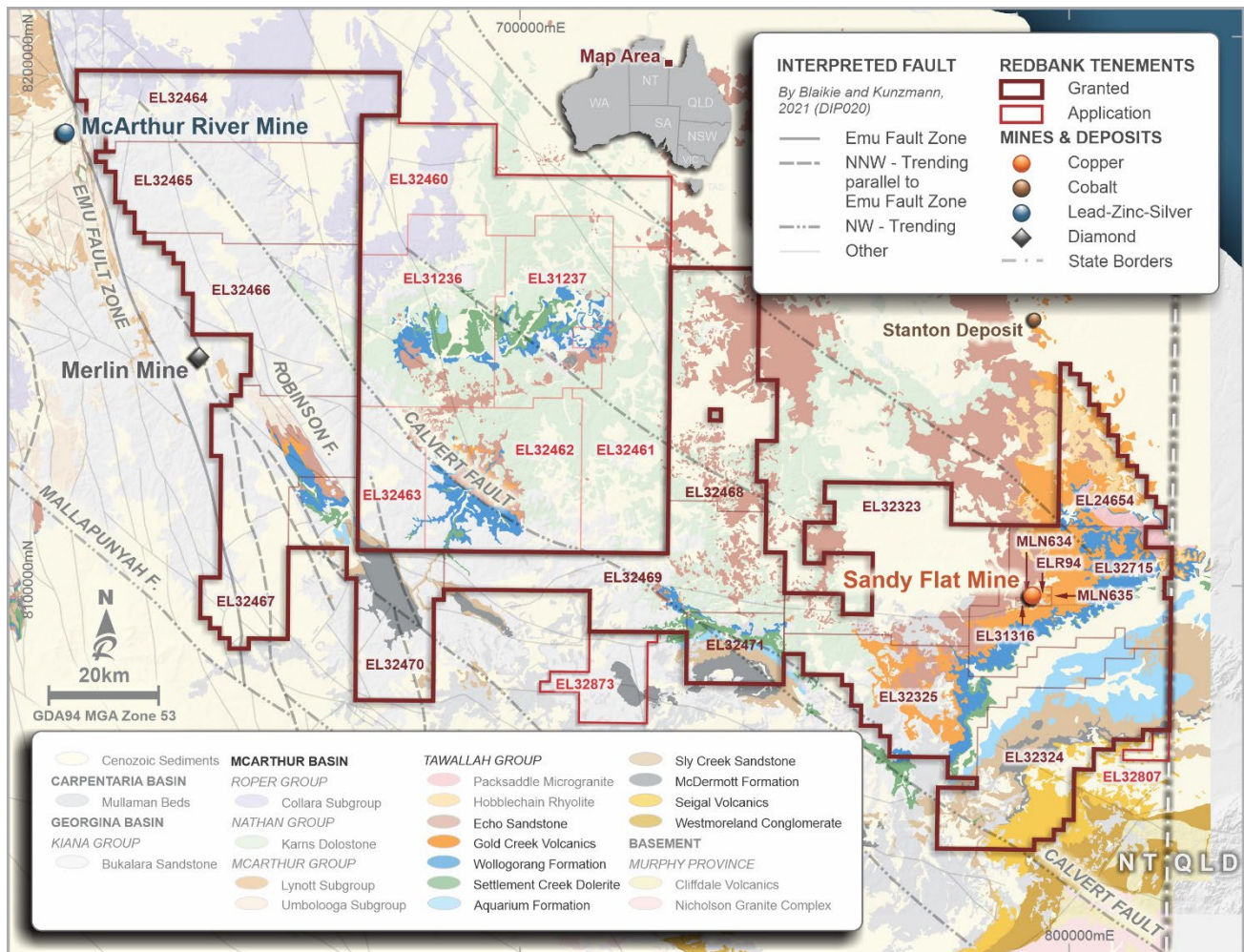


Figure 6: Redbank Project Regional Geology.

The host of the McArthur River mine just outside of the tenement area, is the Barney Creek Formation. It is not exposed in the tenement group but may be present under younger sediments, determined by regional unconformities, near the Robinson Fault (Figure 6).

Surface exposure in the project area is dominated by the youngest, Neoproterozoic Bukalara Sandstone (1170Ma), predominantly south of the Calvert Fault. The Paleo-Proterozoic Karns Dolomite is the second most abundant outcropping unit in the project, predominantly exposed north of the Calvert Fault (refer Figure 7), isolated malachite occurrences in non-economic concentrations have been identified within the Karns Dolomite.

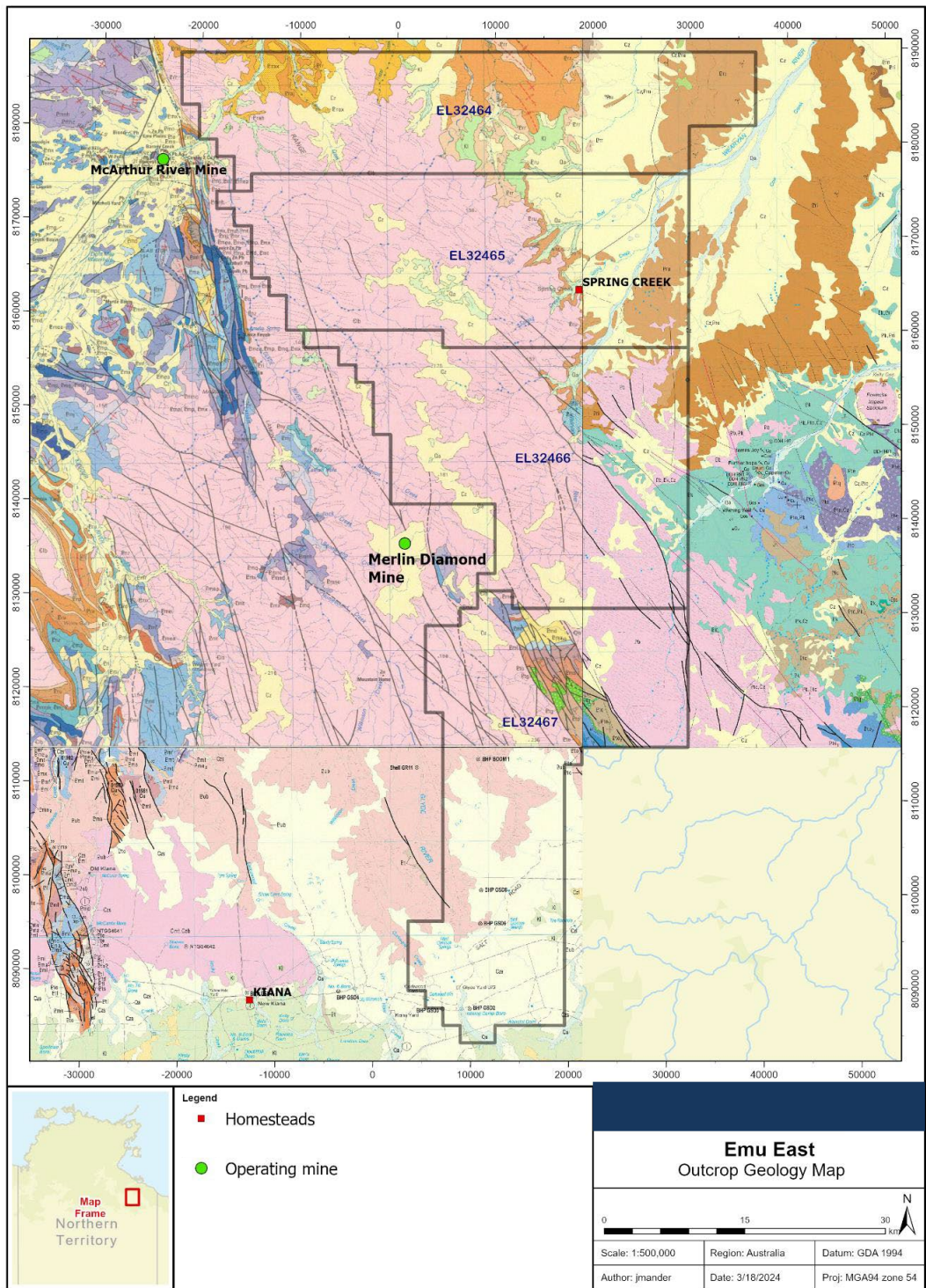


Figure 7: Emu East Geology based on NTGS 1:250,000 Geology including Robinson River SE5304, Bauhinia Downs SE5303 and Walhallow SE5307 mapsheets.

3. HISTORICAL EXPLORATION (PRE-REDBANK OPERATIONS PTY LTD)

Tenements within the Emu East Project including EL32466 are significantly under explored, largely due to its historical remoteness and limited access. Historical small-scale mining and prospecting occurred 150 kilometres to the east of EL32466 at the Redbank, Azurite and Prince prospects (“Redbank Project”) between 1916 and 1961. Copper mineralisation at the historic Redbank Project is known to be hosted by a series of steep to vertically plunging breccia zones (“breccia pipes”) with a surface expression of less than 130m in diameter. Historical drilling has confirmed that the breccia pipes extend to at least 300m depth.

Although there is no historical evidence of breccia pipes within the Emu East Project, the area is considered analogous to the mineralisation at Redbank as both areas contain the Tawallah Group stratigraphy, prospective for copper bearing breccia pipe and sediment-hosted base metal mineral systems.

To the south of EL32466, copper was identified in the Mountain Home area by a few pits and shafts with no production recorded. Copper mineralisation at Mountain Home has been described as occurring within steeply dipping quartz veins.

The last significant body of work within tenure comprising the Emu East Project, prior to Redbank Operations involvement, was conducted by Australian Geophysical Pty Ltd in 1967. Exploration focussed on the Mallapunyah, Mountain Home and Robinson Dome areas (ATP 1343), targeting sediment hosted base metal mineralisation. Work completed and reported in CR1967-0007 comprised collection of 1,980 soil samples (analysed for Cu, Pb, Zn, Ni, Co) which outlined three areas of copper anomalism. These anomalous areas were evaluated with geophysical techniques (Induced Polarisation and Electromagnetic), refer Figure 8.

Preliminary investigations for diamond bearing kimberlite pipes was conducted across the tenement package by Stockdale Prospecting, CRA Exploration, Ashton Mining and BHP Minerals between 1980 and 2000. Work undertaken included stream sediment sampling, drainage gravel sampling, loam sampling, bulk sampling, targeted shallow reconnaissance drilling and various geophysical surveys (Airborne magnetic and radiometric, Airborne EM with follow-up ground-based SIROTEM).

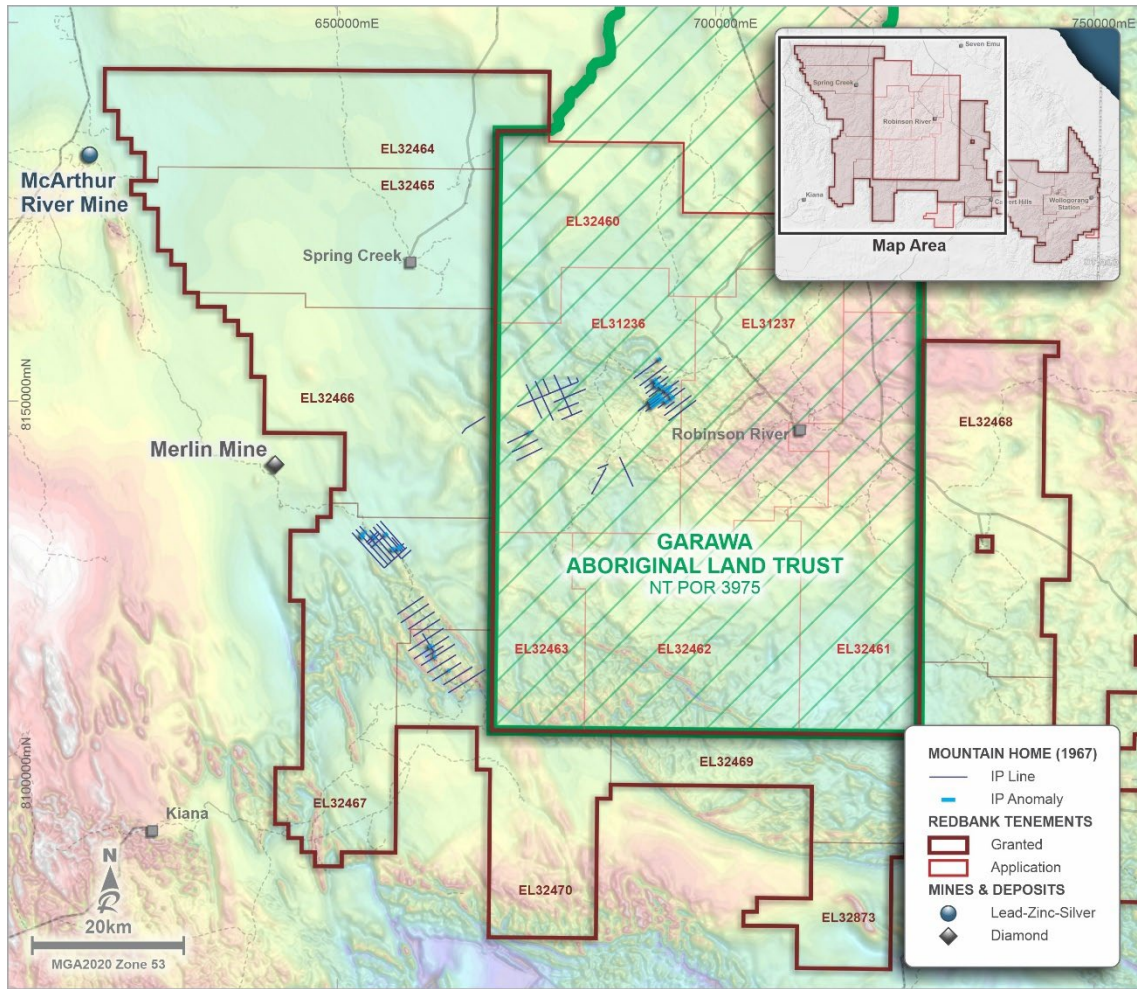


Figure 8: Historic Induced Polarisation (IP) survey conducted over Mountain Home and Robinson Dome, with IP anomalies highlighted.

4. EXPLORATION WORK COMPLETED BY REDBANK OPERATIONS

Since granting of tenement EL32466, operators of the tenement Redbank Operations, Teck Australia and Maverick2 have completed desktop studies relating to data compilation, historic data reviews. In 2021, Redbank Operations completed an extensive helicopter supported regional scale reconnaissance sampling programs. However, no ground-based exploration activities were completed on the fifteen blocks that are the subject of this relinquishment report.

5. CONCLUSIONS AND RECOMMENDATIONS

Since grant of tenement EL32466, Redbank Operations and Maverick2 have completed desktop studies relating to data compilation, historic data reviews and helicopter supported regional scale reconnaissance sampling programs across the Emu East Project which includes EL32466. However, no ground-based exploration activities were completed on the fifteen blocks that are the subject of this relinquishment report.

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