

Typhon Minerals Pty Ltd

EL31543 Illogwa Project

Annual and Final report for the period:
2 January 2024 to 1 January 2025

Target Commodities: Cu, Co, Ni, PGE's, Au, Ag

Illogwa SF5315 and Alice Springs SF5314 (1:250,000)
6051 Brahma, 5951 Quartz, 5851 Riddoch, 5950 Limbla and 6050 Illogwa (1:100,000)

Prepared by Typhon Minerals Pty Ltd
28 February 2025

Abstract

- EL31543 (Project) was located approximately ~145km ENE of Alice Springs and comprised three separate areas.
- Typhon assessed the potential of the Project for Basil-style Cu-Co sulphide deposits, Ni-Cu-PGE sulphide mineralisation associated with mafic and ultramafic intrusions, as well as bedrock and alluvial Au deposits.
- The eastern portion of the Project adjoined EL26942 which covers the Basil Cu-Co deposit. There are a number of prominent faults and shear zones that are interpreted to extend from the Basil deposit into the Project area, however these faults do not appear to be mineralised.
- Several mafic-ultramafic intrusions were located within the Project area, or were inferred to be located under shallow cover. However, these intrusions are no longer considered to be of economic significance.
- Assessment of relevant exploration results showed that there no areas of significant geophysical and geochemical anomalism left in the Project area requiring further assessment.
- EL31543 expired on 1 January 2025.

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1. Introduction

The Project was located ~145km ENE of Alice Springs and comprised three separate areas that extend across portions of the Ambalindum, Indiana and Numery Stations (Figure 1).

The Project was situated east of the Basil Cu-Co deposit, as well as a number of important Cu-Co and Ni-Cu-PGE prospects, such as Manuel, Miggins, Bob and Hammerhead.

The Project area can be accessed from the north via the Plenty Highway and station tracks, or from the south via the Ross Highway and station tracks.

All maps in this report are shown using the GDA94 Geographic datum in MGA94 using the Zone 53 projection.

2. Tenure

EL31543 was granted for a 6 year period commencing on 2 January 2019 and originally covered 77 sub-blocks (Figure 2; Table 1).

A total of 38 sub-blocks were relinquished from the Project during February 2023, leaving 39 retained sub-blocks (Figure 3).

EL31543 expired on 1 January 2025.

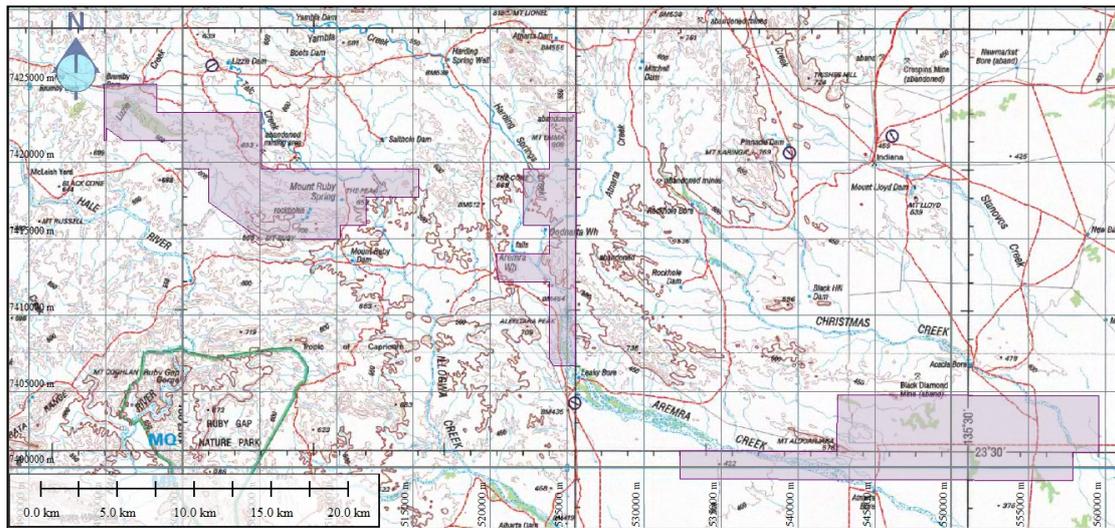


Figure 1: Location map (MGA94 zone 53).

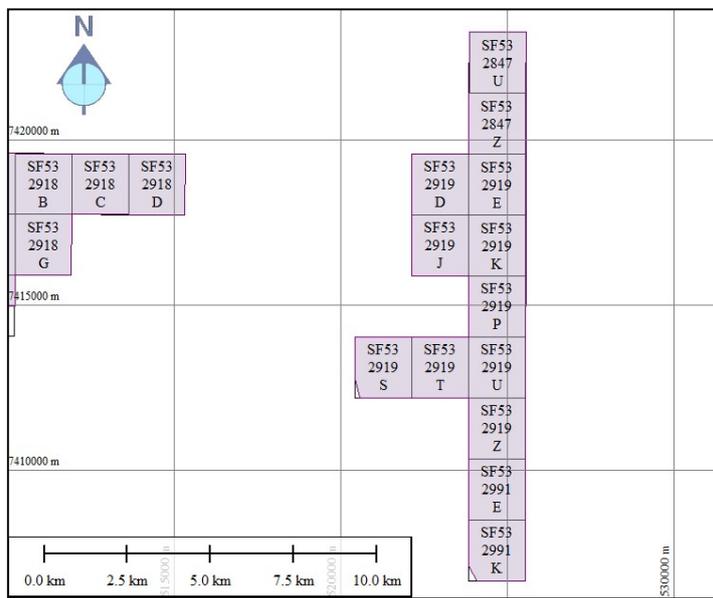


Figure 2: Tenement map (MGA94 Zone 53).

Table 1: Sub-Block List

NO	BLOCK	GRID_ID	BIM	SUB_BLOCK
1	2845	SF532845	SF53	V
2	2845	SF532845	SF53	W
3	2845	SF532845	SF53	X
4	2847	SF532847	SF53	Z
5	2917	SF532917	SF53	B
6	2917	SF532917	SF53	C
7	2917	SF532917	SF53	D
8	2917	SF532917	SF53	E
9	2918	SF532918	SF53	A
10	2918	SF532918	SF53	B
11	2918	SF532918	SF53	C
12	2918	SF532918	SF53	D
13	2919	SF532919	SF53	D
14	2919	SF532919	SF53	E
15	2844	SF532844	SF53	S
16	2844	SF532844	SF53	T
17	2844	SF532844	SF53	U
18	2845	SF532845	SF53	Q
19	2845	SF532845	SF53	R
20	2845	SF532845	SF53	S
21	2847	SF532847	SF53	U
22	2844	SF532844	SF53	N
23	2844	SF532844	SF53	O
24	2994	SF532994	SF53	Q
25	2994	SF532994	SF53	R
26	2994	SF532994	SF53	S
27	2994	SF532994	SF53	T
28	2994	SF532994	SF53	U
29	2995	SF532995	SF53	Q
30	2995	SF532995	SF53	R
31	2995	SF532995	SF53	S
32	2995	SF532995	SF53	T
33	2995	SF532995	SF53	U
34	3064	SF533064	SF53	E
35	3065	SF533065	SF53	A
36	3065	SF533065	SF53	B
37	3065	SF533065	SF53	C
38	3065	SF533065	SF53	D
39	3065	SF533065	SF53	E
40	3066	SF533066	SF53	A
41	3066	SF533066	SF53	B
42	3066	SF533066	SF53	C
43	3066	SF533066	SF53	D
44	3066	SF533066	SF53	E
45	3067	SF533067	SF53	A
46	3067	SF533067	SF53	B
47	3067	SF533067	SF53	C
48	3067	SF533067	SF53	D
49	2994	SF532994	SF53	V
50	2994	SF532994	SF53	W
51	2994	SF532994	SF53	X
52	2994	SF532994	SF53	Y
53	2994	SF532994	SF53	Z
54	2995	SF532995	SF53	V
55	2995	SF532995	SF53	W
56	2995	SF532995	SF53	X
57	2995	SF532995	SF53	Y
58	2995	SF532995	SF53	Z
59	2917	SF532917	SF53	N
60	2917	SF532917	SF53	O
61	2917	SF532917	SF53	P
62	2918	SF532918	SF53	L
63	2919	SF532919	SF53	P
64	2991	SF532991	SF53	E
65	2919	SF532919	SF53	S
66	2919	SF532919	SF53	T
67	2919	SF532919	SF53	Z
68	2919	SF532919	SF53	U
69	2991	SF532991	SF53	K
70	2917	SF532917	SF53	G
71	2917	SF532917	SF53	H
72	2917	SF532917	SF53	J
73	2917	SF532917	SF53	K
74	2918	SF532918	SF53	F
75	2918	SF532918	SF53	G
76	2919	SF532919	SF53	J
77	2919	SF532919	SF53	K

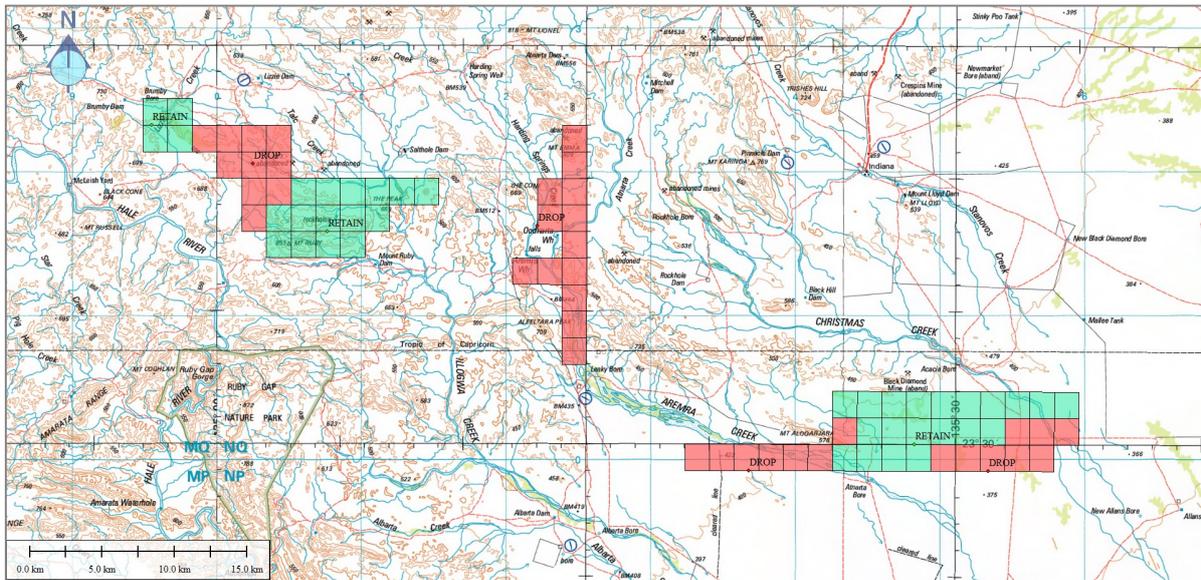


Figure 3: Tenement map showing relinquished (red shading) and retained (green shading) sub-blocks during February 2023. (MGA94 Zone 53).

3. Geology

The Project lies within the Cambrian aged Irindina Province and the Proterozoic Aileron Province of the south-eastern Arunta Inlier (Figures 4 and 5).

The Irindina Province comprises the Harts Range Group, a volcanosedimentary succession that was metamorphosed to granulite facies during the Ordovician Larapinta Event (~475-460 Ma). Litho-stratigraphical and geochronological data indicate that the Harts Range Group correlates with Neoproterozoic to Cambrian sediments of the adjacent Amadeus and Georgina Basins. Therefore, the Harts Range Group was probably deposited in a basin contiguous with, and possibly linking, the Amadeus and Georgina Basins.

While the Harts Range Group was metamorphosed to granulite-facies, sedimentation is interpreted to have continued in the Amadeus and Georgina Basins. Structural and lithological evidence suggest that the Larapinta Event was extensional, with very deep burial required for the measured metamorphic conditions (30-35 km). Such an event was probably associated with mantle melting. The numerous mafic and ultramafic units found throughout the Irindina Province, although their timing is poorly constrained, may have intruded during the Larapinta Event. These intrusions are considered prospective for Ni-Cu-PGE sulphide deposits.

The Harts Range Group and Amadeus and Georgina Basins were structurally inverted and brought to the surface during the mid-Palaeozoic Alice Springs Orogeny (450-300 Ma). Seismic traverse 09GA-GA1 shows that faults in the region form part of a major, north-dipping mid-crustal detachment that separates Irindina Province rocks the Aileron Province (Figure 5).

Exploration in the general region of the Project has identified significant sulphide-hosted Cu-Co mineralisation at the Basil Deposit (Inferred Resource of 26.5 Mt @ 0.57% Cu and 0.05% Co), as well as orthomagmatic Ni-Cu-PGE sulphide mineralisation at Blackadder and Baldrick Prospects (drill intercept of 9m @ 0.48% Ni and 0.37% Cu; Figure 4).

The Project covers units of the Riddock Amphibolite Member which contains variably deformed metagabbro intercalated with amphibolite and minor metapsammopelitic rocks.

The Basil Cu-Co deposit is located within a 10 km-long zone of hydrothermal alteration containing zones of massive, stringer and disseminated pyrite, pyrrhotite and chalcopyrite within the Riddock Amphibolite.

The genesis of the Basil deposit is not well understood due to extensive metamorphic overprinting. The two most likely options appear to be: 1) a metamorphosed orthomagmatic system; or 2) a metamorphosed volcanic-hosted massive sulphide system (e.g. Sharrad et. al., 2014).

A recent Geoscience Australia study highlighted the significant Ni-Cu-PGE potential of the mafic-ultramafic intrusions in the general application area (Duffer et al., 2016, GA Record 2016-001; see also Meixner and Hoatson, 2003, GA Record 2003/29, for further discussion of the Riddock Amphibolite).

The Project was considered prospective for;

- Ni-Cu-PGE mineralisation associated with mafic and ultramafic intrusions
- “Basil type” Cu-Co semi-massive sulphides
- Vein-style REE-Th mineralisation
- Uranium mineralisation

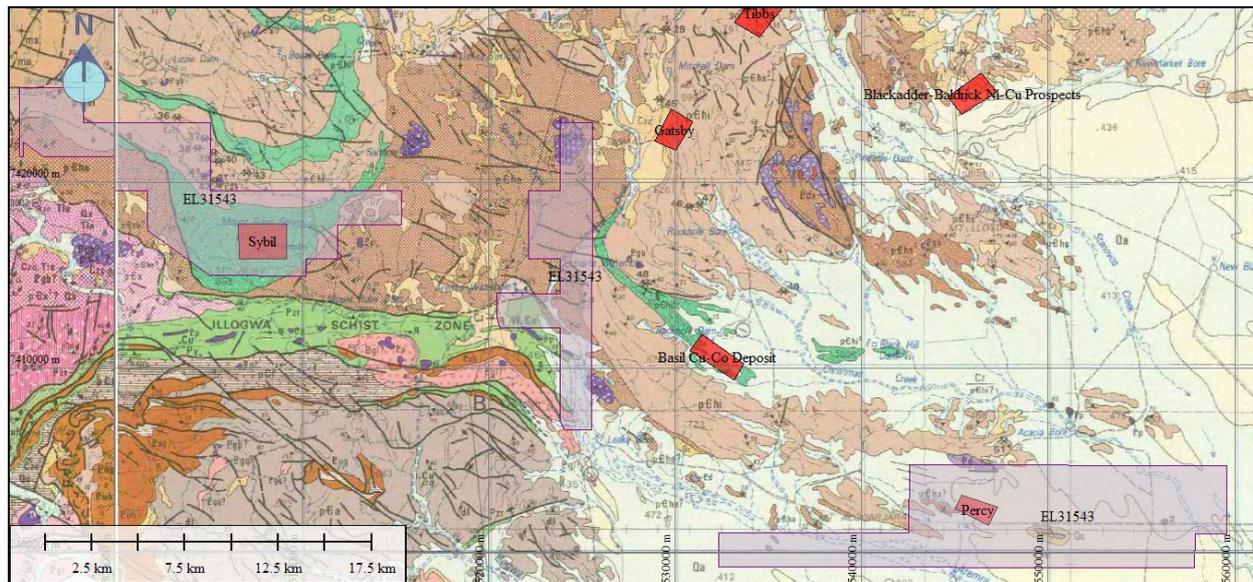


Figure 4: Regional geological map (1:250,000 NTGS mapping; MGA94 Zone 53). For lithological legend, please see the published Illogwa SF5315 and Alice Springs SF5314 maps.

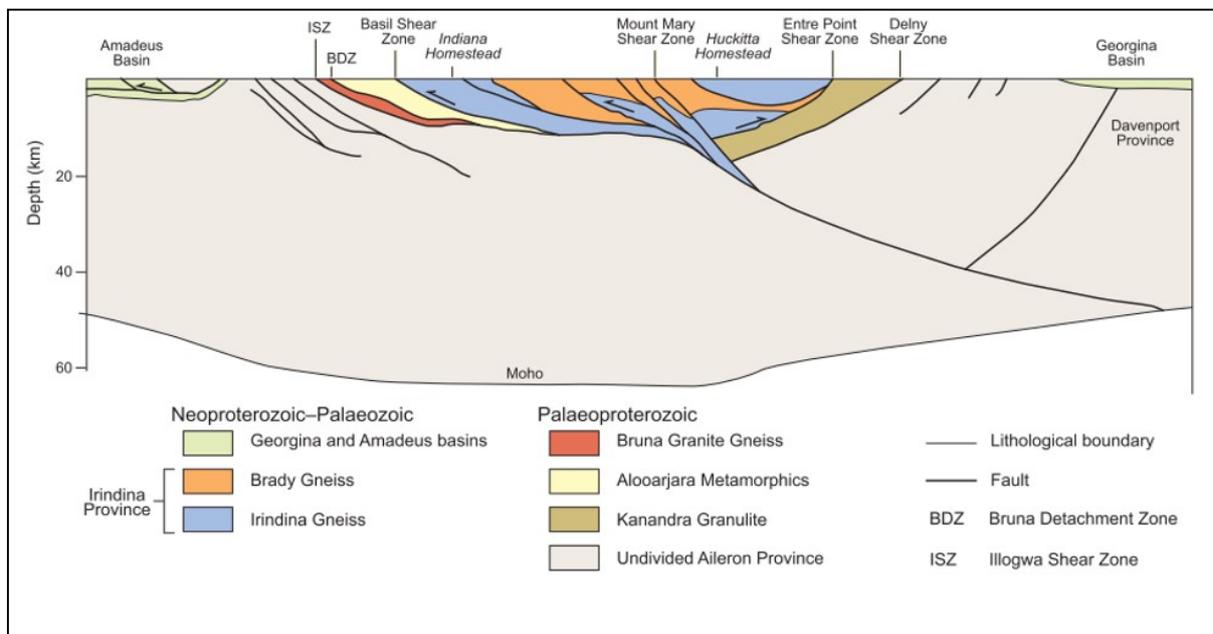


Figure 5: Interpreted migrated seismic section from seismic line 09GA-A1 showing large scale crustal structures along the southern margin the Irindina Province (modified after Scrimgeour, 2011).

4. Exploration history

The area within and surrounding the Project has previously been explored by a number of companies including Mithril Resources, MMG, BHP, Red Metal and Western Desert. Previous work included mapping, stream sediment, soil and rock chip sampling, ground and airborne magnetic and electromagnetic surveys, and AC, RC and DC drilling. The work located multiple gabbroic intrusions with potential to host magmatic Ni-Cu-PGE sulphide deposits. The AEM/GEM surveys identified a number of mid- to late-time bedrock responses. Large tonnages of Cu-Co mineralisation were defined at the Basil Deposit.

5. Summary of work undertaken

During the term of EL31543, the Company conducted an intensive process of interrogation of all available geophysical, geological, geochemical, and structural datasets. The best available geophysical and remote sensing datasets were reprocessed and enhanced to better image the surface and subsurface geology across the Project (see Appendix 1 and 2). Geological reconnaissance, including anomaly checking, was undertaken. However, access to the rugged western portions of the tenement is challenging and laborious.

ASTER Level-1 Precision Terrain Corrected Registered At-Sensor Radiance (AST-L1T) data sets were acquired and processed to identify and analyze geological features to guide mineral exploration target area identification. QGIS 3.34 PRIZREN software was used to carry out standard atmospheric corrections, band ratio analyses and Principal Component Analysis (PCA) to detect and map potential alteration zones and structural lineaments. Bands or ratios assessed included:

Feature	Red	Green	Blue
Vegetation	3	2	1
AIOH minerals	5/6	7/6	7/5
Gossan, alteration, host rock	4/2	4/5	5/6
Silica	11/10	11/12	13/10
Mapping Rock Discrimination	4/1 4/7	3/1 4/3	12/14 2/1
Mapping Rocks Discrimination (sulphide rich)	12	5	3
Structural features	7	4	2

6. Conclusion and recommendations

The eastern portions of the Project area are covered by deposits of colluvium and aeolian sand, with sporadic outcrops. The western area is characterised by rugged topography and numerous outcrops, but with limited vehicular access tracks, making the identification and location of potentially mineralised rocks challenging.

The eastern portion of the Project adjoined EL26942 which covers the Basil copper-cobalt deposit. There are a number of prominent faults and shear zones within the Irindina Gneiss that are interpreted to extend from EL26942 into the Project area, however, these faults do not appear to be mineralised.

Field sampling by Typhon geologists north of EL31543 located a number of anomalous rock chip results, including copper assays of up to 3.86% Cu hosted by mafic and felsic gneisses intruded by small olivine-bearing gabbroic intrusions.

Several small mafic-ultramafic intrusions were located within the Project area, or were inferred to be present under shallow cover. Field work suggested that these intrusions are not of economic significance and no further work was recommended for EL31543.

EL31543 expired on 1 January 2025.

7. Confidentiality Statement

This document and its contents are the copyright of Typhon Minerals Pty Ltd. The document has been prepared for submission to the Northern Territory Department of Industry, Tourism and Trade as part of the tenement reporting requirements as per the Mineral Titles Act (NT). Any information included in the report that originates from historical reports or other sources is listed in the "References" section at the end of the document, or within the main body of the text. All relevant authorisations and consents have been obtained. Typhon Minerals Pty Ltd authorises the Department to copy and distribute the report and associated data.

8. References

Scrimgeour, I.R. (2011). Geology and Mineral Resources of the Northern Territory, p 29.1-29.12.

Sharrad, K. A. et. al. (2014). The Basil Cu–Co deposit, Eastern Arunta Region, Northern Territory, Australia: A metamorphosed volcanic-hosted massive sulphide deposit. *Ore Geology Reviews*, 2014, vol. 56, pp 141-156.

Various exploration reports for EL's 24194, 26942, 27243, 25643, 25453, 25402, 25653, 27662, 27178, as well as aeromagnetic and radiometric datasets (CR1996/285; CR2013/997; CR2014/579, CR2008/54; GA548 and GA 1003) and the Central Arunta Gravity Survey.