Final Report

EL 25573 – Mt Skinner East
Mt Skinner Base Metal Project

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SUMMARY

EL25573 forms part of the Mt Skinner Project area, being located approximately 190km northeast of Alice Springs. The tenement was transferred from Elkedra Diamonds NL (Elkedra) to Uramet Minerals Ltd (Uramet) during the 2007 season, and originally covered an area of 83km². Uramet changed its name to Intercept Minerals Ltd (Intercept) in July 2011.

Exploration consisted of regional reconnaissance work, a helicopter-borne electromagnetic (EM) survey in the western most part of the tenement in 2007, and a helicopter assisted gravity survey infilling part of the regional Arunta gravity survey undertaken by the NTGS and Geoscience Australia in 2008.

No significant targets were generated by the VTEM and gravity surveys, nor was evidence of significant base metal mineralisation noted as the result of field reconnaissance. Intercept considers the prospectivity for base metal on this tenement to be low.

This report details all exploration work carried out within EL25573 from the time of grant on 30 July 2007 to the date of surrender 2 August 2012.
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1. Introduction

EL25573 forms part of the Mt Skinner Project area, being located approximately 190km northeast of Alice Springs, NT, with good road access on the sealed Stuart Highway and a network of established minor roads and station tracks.

This report details all work carried out by Uramet/Intercept on the surrendered tenement since it was granted.

Figure 1 Location map of EL25573 showing original tenement.
2. Tenure

EL25573 was granted to Elkedra on 30 July 2007, and was transferred to Intercept (Uramet) being a divestiture of Elkedra shortly after.

In 2009 a 50% reduction in area was made to the tenement, a further 50% reduction was made in 2011 refer to Figure 2.

Figure 2 EL25573 showing areas relinquished and the final surrender.
3. Geology

3.1 Regional Geology

The Project area lies at the boundary between Proterozoic-aged basement of the Arunta domain and the younger southern Georgina Basin (Figure 3). Kruse et al have described the Georgina Basin as a 330,000km$^2$ erosional remnant of a series of originally interconnected central Australian intracratonic basins that range in age from Neoproterozoic to Palaeozoic. In excess of 1.5km of Neoproterozoic sedimentary rocks are preserved in downfaulted blocks and half-grabens on the southern margin of the Georgina Basin in the NT. Depocentres and synclines contain up to 2.2km of Cambrian to Devonian section.

The Arunta basement is dominated by folded and faulted Palaeoproterozoic-age felsic gneiss and metasedimentary rocks (biotite schist, quartzite and calcsilicate), intruded by syn- to post tectonic granitoids.

In early Palaeozoic times the area was a stable platform on which carbonate, clastic and evaporitic units were deposited. The intracontinental, compressional Alice Springs Orogeny (370-310 Ma) affected the Georgina Basin and other central Australian Basins but resulted in little metamorphism (Dunster et al. 2007).

3.2 Tenement Geology

The geology of the tenement area is dominated by Neoproterozoic and Cambrian sedimentary rocks of the Central Mount Stuart and Octy Formations.

Cambrian and Neoproterozoic strike directions mainly trend NW-SE, sub-parallel to regional faults and shears such as the northwest trending Stirling Fault Zone. A secondary set of faults cross-cut the stratigraphy with a northeast strike.

The Neoproterozoic Central Mount Stuart Formation covers most of the north-eastern and eastern part of the tenement. The Cambrian Octy Formation is unconformable on the Neoproterozoic sandstones. The succession is part of a tilted fault block dipping gently towards a geophysically-defined fault trending NW-SE. The Neoproterozoic sedimentary rocks range in thickness from a veneer at the base of the Cambrian (Dunster et al., 2007) in the north, to an interpreted 1200m depth to the south.

Granitoid basement crops out in several localities throughout the Mt Skinner project area.
4. Previous Exploration Work

Many explorers have previously investigated the area for base metals. Exploration within the area was initiated by Kennecott Exploration in 1966. The main targets were the malachite-bearing grey-green siltstone units that outcrop throughout the area.

The NT Department of Mines and Water Resources drilled 4 holes for a total of 662m in 1968 to investigate copper mineralisation at Mt Skinner (GR19680016).

Alcoa of Australia Ltd continued exploration for copper and drilled 4 holes at Mt Skinner in 1981 (CR19820183).

In 1970, Centamin N.L. followed up on the holes drilled by Department of Mines and Water Resources and selected intervals of core which were assayed for Cu, Pb and Zn but without any significant results (CR19830125).

In 1983, Alcoa Australia Ltd flew an airborne magnetic survey at 500m line spacing and drilled 4 holes close to previous holes. Operations ceased after re-evaluation of the data led to a down-grading in prospectivity of the area for base metals (CR19830125).

In 1995, CRA Exploration Ltd re-logged and assayed the Mt Skinner core drilled in 1968 but did not make any concluding remarks (CR19950562).

No significant drilling has been carried out since 1995. The NTGS re-evaluated the area as part of the Southern Georgina Basin Geology and Resource Potential Report in 2007 and concluded that Mt Skinner remains prospective for base metals (Dunster et al., 2007).
5. Work Undertaken By Uramet

5.1 Desktop Review

A review of open file exploration reports and drill core data indicates that Mt Skinner is prospective for stratiform copper mineralisation (Figure 3) in the Neoproterozoic Central Mount Stuart Formation and epigenetic base metal mineralisation in the Elyuah Formation. Copper mineralisation occurs on the surface and extends for several kilometres along strike and consists of malachite-stained rocks and float (Dunster et al., 2007). Visible galena, pyrite, chalcopyrite and fluorite were described by Dunster et al. (2007) in core from the NTGS hole CMS4 (immediately east outside the tenement) at a depth of 247m to 260m. Whole rock geochemistry carried out during the same study confirmed elevated lead, zinc and barium levels and revealed previously unrecognised lead-zinc mineralisation at depth.

Figure 3 Mt Skinner geological map showing cupriferous outcrop, Dunster et al., 2007. (Surrendered area in black)
5.2 Reconnaissance Work

Regional reconnaissance work was carried out in several campaigns between 2007 and 2010s. Outcropping malachite-bearing siltstone and associated float were investigated in the wider project area.

5.3 Helicopter-borne Electromagnetic Survey

A helicopter-borne EM (VTEM = versatile time domain electromagnetic) survey amounting to approximately 34 line-kilometres was flown by Geotech Airborne Ltd (www.geotechairborne.com.au) in October 2007 over the tenement. Flight lines are indicated in figure 4. Data has been previously submitted to the DME.

Figure 4 Location of Geophysical Surveys
5.4 Gravity Survey

During 2008, a helicopter assisted gravity survey infilling (to approximately 500m spaced stations) the regional Arunta survey conducted by the NTGS and Geoscience Australia was undertaken over several selected areas within the Mt Skinner Project area, 43 infill readings were collected over EL25573. The gravity data is held by the DME.
6. Conclusions

No significant targets were generated by the VTEM and gravity surveys, nor was evidence of significant base metal mineralisation noted as the result of field reconnaissance. Intercept considers the prospectivity for base metal of the tenement to be low hence the reason for surrendering the tenement.
7. References

Dunster JN, Kruse PD, Duffett ML and Ambrose GJ. 2007. Geology and resource potential of the southern Georgina Basin, Northern Territory, NTGS.