

PROJECT NAME: HAYES CREEK SOUTH IRON ORE - MANGANESE

TENEMENTS: Exploration Licences 24432

MINERAL FIELD: Pine Creek Geosyncline

LOCATION:	PINE CREEK	SD5208	1:250 000
	Pine Creek	5270	1:100 000
	Tipperary	5170	1:100 000

COMMODITIES: Iron Ore – Manganese - Uranium

Abstract

The Hayes Creek South Fe-Mn Project consists of one granted Exploration Licence (EL24432) covering 130.1 square kilometres approximately 160 kilometres south of Darwin in the Northern Territory (Figure 1). The tenement area is situated approximately 8 kilometres east of the Douglas Homestead and is accessed via the Stuart Highway to the north with the western portion through graded road tracks.

This report describes the results of literature research and desktop geophysical work carried out during the first year of the Licence.

During 1969, Central Pacific Minerals NL, delineated an iron rich bed within the Upper Proterozoic Stray Sandstone was discovered and traced intermittently over a distance of about 9.65 kilometres. Reconnaissance mapping of the area showed that the source rocks for the iron oxide concentrations are a series of ferruginous shales, siltstone and fine grained sandstone. The limonitic oxides derived from the iron rich lenses within the sandstone units have been concentrated as weathering and residual concentration of insoluble oxide on a surface degradation and it is unlikely that extensive mangiferous iron ore deposits would be formed and preserved.

Eupene Exploration Enterprises Pty Ltd conducted base metal exploration partly over the north western portion of the current tenure area under historical EL2885. Secondary copper mineralisation was observed on Douglas Station. A specimen of malachite – rich material taken during excavation was subjected to XRF scan and returned anomalous amounts of nickel and cobalt as well as of course copper. The mineralisation would appear to be similar to other copper/cobalt mineralisation known from in and near the Fenton and Cullen Granites.

In 1987, 109 rock chip samples were taken for assaying by 3 prospectors in the north western area within EL24432 (some of the sampling is believed to be excised from the current tenure area). The highest recorded readings are as follows: 15 g/t Au, 15 g/t Ag, 690 ppm Cu and 57.28% Fe.

In 1990, further field reconnaissance identified ferruginised breccia zones running parallel with prominent fault zones. Three sub parallel zones consisting of semi massive hematite and goethite between 1 – 8m wide and spaced 25 – 100 m apart within the Tolmer Group sandstones with minor quartz veining mapped.

During the month of January 2007, a review of re-processed and re-interpretation of magnetic and radiometric data from the Northern Territory Geological Survey Database was undertaken. This was conducted for the purpose of identifying exploration targets for iron ore gold and uranium. Numerous exploration radiometric targets were outlined. Several first order and second order high priority radiometric targets were identified which warrant extensive work.