

# Technical Reporting

**Tenure:** EL24102- "Hodgson Downs"

**Group Report ID:** GR260-12

**Title:** Annual Technical Report

**Report Period:** 28/2/2016 to 27/2/2017

**Project Name:** Roper Valley Iron Ore Project (previously Roper River Iron Ore Project)

**Title Holder:** Northern Territory Iron Ore (NTIO) Pty Ltd

**Title Operator:** Northern Territory Iron Ore (NTIO) Pty Ltd

**Personal Author:** Anthony Ryall

**Report Type:** Annual

**250K Map sheet:** Hodgson Downs (SD53-10)

**100K Map sheet:** N/A

**Geological Province:** West McArthur Basin

**Stratigraphic Name:** Mesoproterozoic Roper Group including Sherwin Formation with Basal Ironstone Member as economic target.

**Target Commodity:** Iron Ore

**Other Commodities:** N/A

**Purpose for which Titles are held:** Iron Ore Exploration and Resource Definition

**Title history:** EL24102, comprising 50 blocks currently, was granted to North Australian Iron Ore (NAIO) on 13<sup>th</sup> August 2007. *Ground selection was based on historic BHP records of iron ore discovery in late 1950s and follow up sampling and reporting by the NTGS in late 1990s.* Ownership was acquired by Sherwin Iron in 2010 with large iron ore resources defined in 2011 and DSO Resource in 2012. EL24102 has been maintained under Group Reporting Status GR260-12 with 2 year Extensions of Term granted at expiry. Northern Territory Iron Ore Pty Ltd (NTIO) acquired the Project in October 2016 from Korda Mentha (Receivers and Managers appointed) by Sherwin Iron in July 2014. EL24102 is included in NTIO's Roper Valley Iron Ore Project

**Location, physiography and access:** EL24102 comprising 50 blocks located approximately 120kms

east of Mataranka along the Roper Hwy and 40kms south along Minyerri Road, and then via station tracks approximately 10kms west of Hodgson Downs Station. The tenement is dominated by a series of shallow dipping to flat lying mesas, hosting ironstone exposures at cliff face positions above the Hodgson River. Outside the mesa terrain are large areas of flat lying planes and valley extent.

**Geology Setting:**

The tenement is dominated by the Basal Oolitic Ironstone Unit of the Sherwin Formation, exposed at shallow depth at cliff face locations and typically 4 to 6 metres thick. Iron oxide resources at Deposits X and W are hosted by the Basal Ironstone Member, the lower most iron unit of the Sherwin Formation.

**Exploration/Mining History:** Following initial exploration by BHP in the 1950s and NTGS reporting and sampling in the late 1990s, Sherwin Iron commenced exploration on EL24102 in 2010 and defined a large iron oxide resource at Deposit W, with extensions into deposits T,U and Y, and a smaller one at Deposit X.

Further drilling in 2012 established a high grade DSO resource at each of W and X, internal to the global low grade resource.

A total of 11 exploration trenches, many of these now backfilled, were excavated at Deposit W for metallurgical testing of the basal ironstone unit.

**Exploration Rationale:**

**Work Completed:** No field work was completed during the current year.

**Results:** N/A

**Conclusions/Recommendations:**

The tenement holds a large component of the Roper Valley Iron Ore Project Resource Base including each of W, X, TUY Resources. Metallurgical testwork needs to be conducted on samples particularly from remaining trenches to optimise grade recovery.

## REFERENCES

Abbott, S.T., Sweet, I.P., Plumb, K.A., Young, D.N., Cutovinos, A., Ferenczi, P.A., Brakel, A., and Pietsch, B.A., 2001. Roper Region: Urapunga and Roper River Special, Northern Territory (Second Edition). 1:250 000 geological map series explanatory notes, SD 53-10, 11. Northern Territory Geological Survey and Geoscience Australia(National Geoscience Mapping Accord).

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Ferenczi, P.A., 1997. Geological Investigation of the Roper River Iron Deposits Northern Territory Geological Survey Technical Report GS97-004.

Johnstone, I., 2010. Roper River Iron Ore Project EL 24102, Mt Davidson. Interim Third Annual Report.

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Sherwin Iron Ltd: Annual Exploration Reports: EL24101 covering period from 2010 to 2015 for Roper River iron Ore Project.

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Figure 1: EL24102 Tenement showing JORC Resources

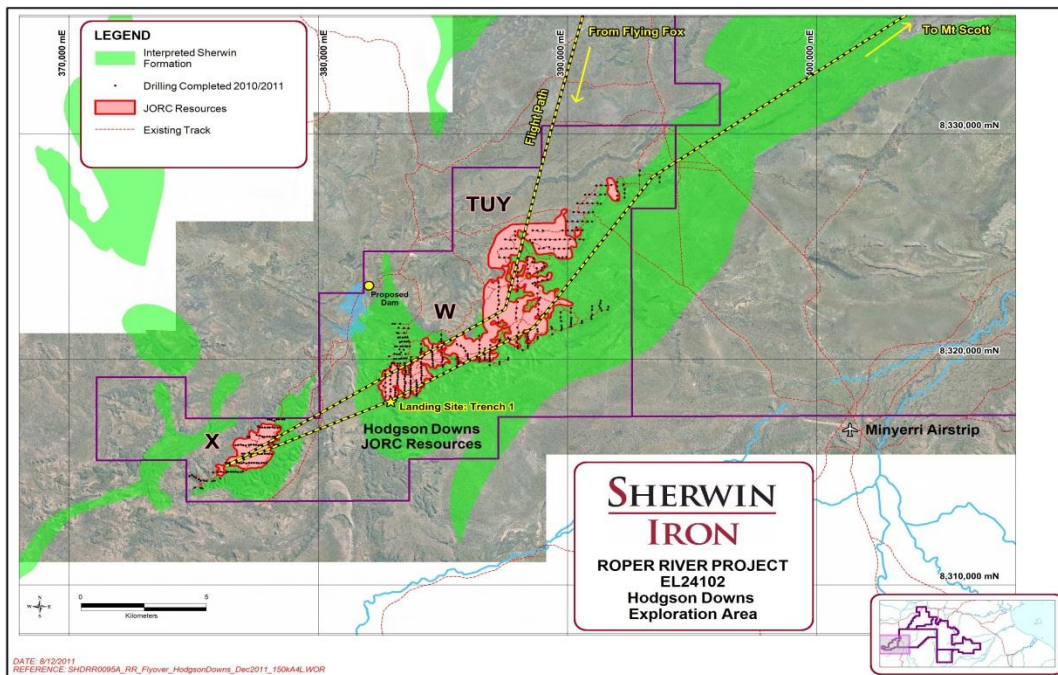


Figure 2: Roper Valley Iron Ore Project showing all tenements

