



TERRITORY IRON PTY LIMITED

## **Territory Iron Pty Ltd**

### **Exploration Activities completed for ELR146 - Reporting Period 19th September 2012 to 18th September 2013**

**Rum Jungle Mineral Field  
Darwin 1: 250,000 Sheet SD 5204  
Bynoe 1: 100,000 Sheet 5072**

A Burgess  
October 2013

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## **SUMMARY**

This report describes the exploration activities undertaken by Territory Iron Pty Ltd (TIPL) at the Yarram Project Area, which is partially located within ELR146, for the period 19 September 2012 to 18 September 2013.

ELR146 is located about 8 km NW of Batchelor and 61 km SSE of Darwin in the Northern Territory and covers 1008 hectares. The Yarram Project Area covers an approximate 2.1sq km area over tenements ELR125, ELR146 and MLN1163, and is subject to an agreement between Territory Iron Pty Ltd and tenement owners Compass Resources Ltd (90%) and Guardian Resources Ltd, (10%) whereby Territory Iron has the right, subject to certain royalty terms, to explore, mine and purchase iron ore from Compass/Guardian.

Territory Iron's exploration activities within the reporting period over ELR146 include:

- Reconnaissance trips by TIPL staff to assess the area
- Rock-chip sampling program to further define iron ore mineralisation
- Significant time spent on MMP submission and amendments

Territory Iron submitted amendments to the Exploration MMP in the reporting period, encompassing the Yarram Rum Jungle Project Area (Authorisation 0263-01 Variation 1 and Variation 2) that includes ELR146. Approval for the Variation 2 was granted in May 2013; it is recommended to carry out the proposed Aircore drilling and Reverse Circulation drilling programs outlined in this MMP during the next reporting period.

Expenditure for the reporting period was \$34,040

## **1. Introduction**

This report describes the exploration activities undertaken at the Yarram Project Area within ELR146 during the period 19 September 2012 to 18 September 2013.

The Yarram Project Area is subject to an agreement between Territory Iron Pty Ltd and tenement owners Compass Resources Ltd (90%) and Guardian Resources Ltd, (10%) whereby Territory Iron has the right, subject to certain royalty terms, to explore, mine and purchase iron ore from Compass/Guardian.

## **2. Location and Access**

The Yarram Project Area is located approximately 9 km NW of the township of Batchelor in the Rum Jungle Mineral Field and 61 km SSE of the city of Darwin in the Northern Territory.

All weather road access is approximately 8 km via the Batchelor - abandoned Rum Jungle Uranium Mine access sealed road; then 1.3km along the gravel formed White Road for 1.3km in a westerly direction. Access into the Yarram East Prospect is then along easterly and northerly oriented fire-break tracks. Access into the Yarram West Prospect is a further 650m along White Road and thence south along a fire break.

## **3. Tenement Status**

ELR146 is currently held by Compass Resources Limited (100%). The tenement is part of a portfolio in which ownership is 50/50 with HNC (Australia) Resources Pty Ltd. It covers 1,008 hectares, and was granted on the 19th September 2001.

The Yarram Prospect is subject to an 'Iron Ore Rights agreement' between Territory Iron Pty Ltd (TIPL) and Compass Resources Ltd / Guardian Resources Pty Ltd, which also includes adjacent tenements MLN1163 & ELR125 (shown in Figure 1).

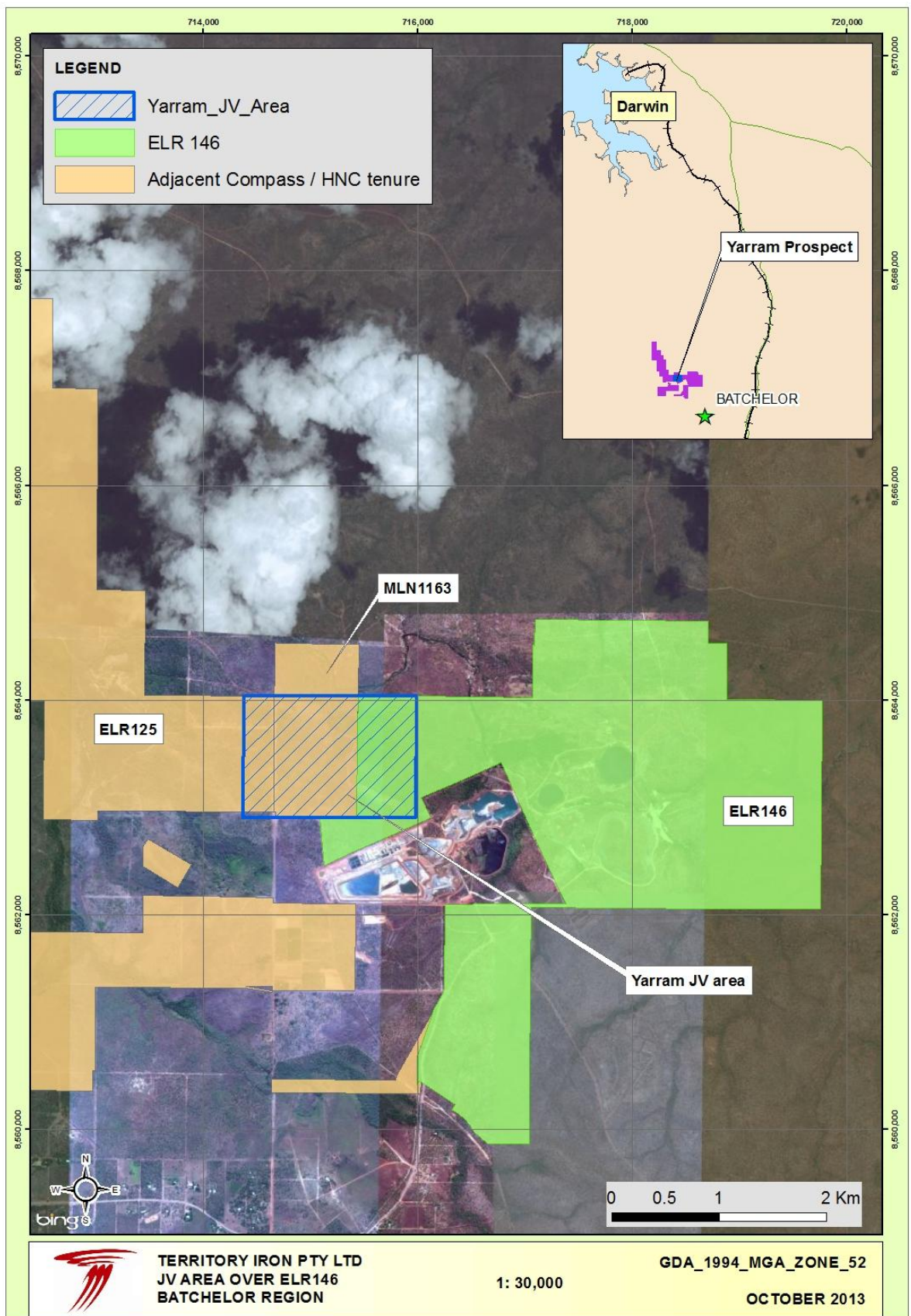


Figure 1 Tenement Location plan showing Yarram JV Area within ELR146. The Yarram JV area is subject to an agreement between Territory Iron P.L. and Compass Resources (90%) and Guardian Resources (10%), whereby Territory Iron has the right, subject to certain royalty terms, to explore, mine and purchase iron ore from Compass/Guardian.

#### **4. Regional Geology, Mineralisation and Structure**

Mapping at 1: 100,000 scale and reinterpretation of the Rum Jungle Mineral Field by the Northern Territory Survey (NTGS) published by Lally (2004) has clarified the stratigraphy, structure and mineralisation of this region. The regional geological setting over the Yarram JV area is shown below in Figure 2.

The Rum Jungle Mineral Field forms the NW sector to the Pine Creek Geosyncline which contains palaeo Proterozoic basin-fill sediments that unconformably overlie domed late Archaean granite-gneiss basement domes. The Geosyncline contains a wide spectrum of mineral commodities including U, Cu, Co, Ni, Pb, Zn, Au, Fe magnesite and phosphate.

The Archaean Rum Jungle Complex comprises schist, granite gneiss, banded iron formation and granite, and is exposed in two domal inliers in the centre of the map area. Rocks in the cores of both Domes are poorly exposed, but have been subdivided into different units by mapping and from their geophysical characteristics. The basement complex is unconformably overlain by a sedimentary succession comprising the Manton, Mount Partridge, South Alligator and Finnis River Groups of the Pine Creek Orogen. Dolerite and gabbro sills and plugs of the Zamu Dolerite intruded these sediments.

In the Yarram district the Coomalie Dolostone (Dolomite) forms the basal, poorly outcropping lithology. Conformably overlying it is the Whites Formation (pyritic calcareous carbonaceous argillite with a basal quartzite member). This is conformably overlain by the Wildman Siltstone (finely laminated argillite and shale) containing the Acacia Gap quartzite member and the Mt Dean Volcanics para amphibolite member.

Unconformably overlying the Coomalie Dolostone, and less commonly the Whites Formation, is the Geolsec Formation (haematitic quartzite breccia (HQB), haematitic sandstone, siltstone and mudstone, and rare shale breccia) formed as erosional infill of a karst developed surfaces in the Coomalie Dolostone. The siltstone member is phosphate rich with microcrystalline fluoroapatite ( $\text{Ca}_{10}(\text{PO}_4)_6\text{F}_2$ ) associated with haematitic siltstone. Contemporaneous development of the phosphatic siltstone and breccias suggest the breccias were deposited into a shallow marine environment (Lally 2004). The Geolsec Formation sediments were deposited around the Waterhouse Dome and unconformably overlie dolostones of the Mount Partridge Group. Tolmer Group marine sandstone overlies the Finnis River Group in the south western map area.

Multiple folding and faulting events affected Pine Creek Orogen rocks from 1880-1760 Ma. Early northwest-directed thrusts were overprinted by tight to isoclinal north-trending folds, accompanied by upper greenschist facies metamorphism. Open folding and kinking was the distal expression of granite emplacement to the east and southeast. Retrograde lower greenschist facies metamorphism accompanied regional-scale, northwest-trending strike-slip faulting. Eight deformation events have been recognized in the Rum Jungle Mineral field.

Significant U, Pb Zn, Ag, Cu, Ni, Co and Au mineralisation has been mined in the Rum Jungle Mineral Field. Sub economic occurrences of phosphate, magnesite and iron ore (Yarram and other localities) have been reported from the Rum Jungle Mineral Field. Iron deposits in the Rum Jungle Mineral

Field were not described in the explanatory notes by Lally (2004), although they were annotated on the NTGS 1:100,000 Interpreted Geology Special Map published in 2003.

Compass Resources Ltd / HNC Resources Pty Ltd is developing the Browns polymetallic base metal deposit hosted in black metapelites of the Whites Formation and located approximately 1km SE of Yarram at the intersection of White and Rum Jungle Mine Roads.

## **5. Territory Iron's 2012-2013 Exploration Activities within ELR146**

Territory Iron previously carried out drilling in the Yarram Project Area in late 2005. Continuing desktop studies were carried out during the reporting year, to assist in proposed drilling for the 2013-14 period.

Total Expenditure on the tenement during the reporting period was \$34,040.

### **5.1 MMP submission & amendments**

Significant time and effort has been put into TIPL's Exploration MMP submission (and amendments). Authorisation 0263-01 (Variation 1) was approved in October 2012, after initially submitting the MMP in March 2012 (requests for additional information were required).

In February 2013 TIPL submitted an amendment to the 0263-01 (V1), seeking to drill within an area designated as Monsoon Vine Thicket (in ELR146, part of the JV area where TIPL has iron rights). The amendment was accepted, and Authorisation 0263-01 (Variation 2) was granted in May 2013. TIPL requested a waiver to submit the 2013 MMP, as approval had been given only two days prior to the 2013 MMP due date. The waiver request was accepted by the Dept of Mines & Energy; the due date for the next MMP is 25 May 2014.

### **5.2 Reconnaissance visits / Rock-chip sampling**

Previous mapping indicates that mineralisation occurs in a series of brecciated siltstone, shale and dolostone horizons in the Coomalie Dolostone Formation. The breccias are composed mainly of goethite/limonite and are frequently cored with lenses of hematite. The mineralised zones appear to be associated with faults trending approximately southwest.

TIPL Exploration Geology staff undertook reconnaissance visits to the tenement for ground truthing and rock-chip sampling over the hematite / goethite outcrops in November 2012. Seventeen (17) rock-chip samples were collected at preferred sites; their locations are shown in Figure 2 and the data is attached in Appendix 1.

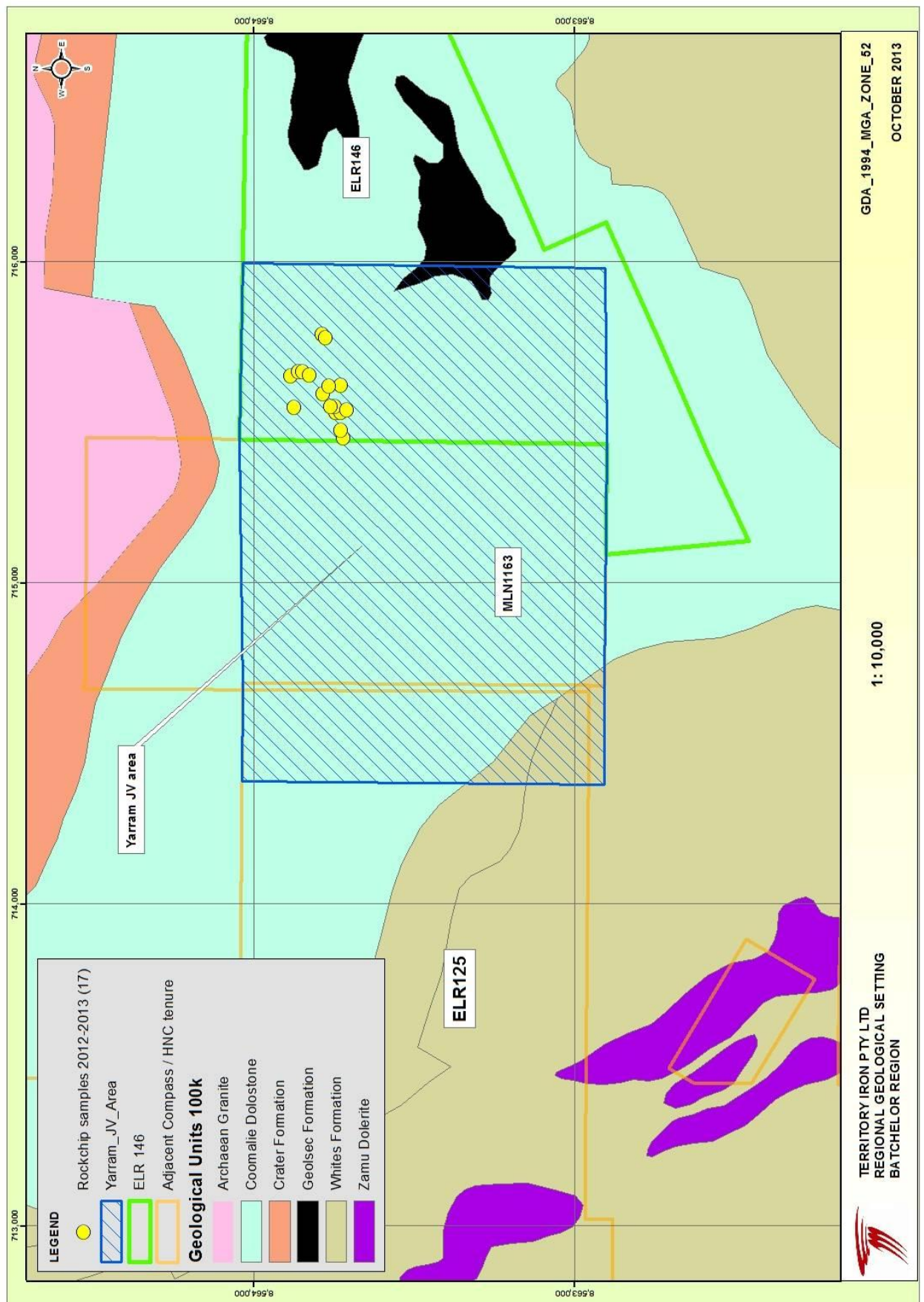


Figure 2: Regional Geological Setting and Rock-chip samples collected during reporting period



## **6. Conclusions & Recommendations**

Approval to drill within preferred areas over the Joint Venture area has been given during the reporting period. As such, it is recommended to carry out the proposed Aircore drilling and Reverse Circulation drilling programs outlined in the MMP during the next reporting period.

**Appendix 1**  
**NT DME text files (includes Verification List)**