

ANNUAL REPORT

EXPLORATION LICENCE 25581
"EAST ROVER"
FOR THE PERIOD 12/5/13 to 11/5/14

YEAR 5

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Admin Geologist
9 July 2014

GDA94 - Zone 53
Target Commodities: Gold and Copper
1:250,000 Bonney Well (SF5302)
1:100,000 Chaluba (5657)

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SUMMARY

EL25581 forms part of the Roper Joint Venture between TNG Ltd and Western Desert Resources Ltd ("WDR"). It is located on Aboriginal Freehold Land approximately 60km south west of Tennant Creek.

EL25581 was granted to Tennant Creek Gold Pty Ltd, a wholly owned subsidiary of TNG Ltd, on 11th May 2009. TNG had entered into a farm-in agreement with Western Desert Resources Ltd (WDR) on 27th February 2008, which has allowed WDR to earn an 80% share in the tenement. WDR is the manager of the joint venture.

The area is considered to be prospective for gold and copper mineralisation associated with ironstones similar to that found in the Tennant Creek goldfield.

The area is located on the western margin of the Tennant Creek Inlier of Palaeoproterozoic age. This consists of the Warramunga Formation, which has been intruded by granitoids and is overlain by volcanic rocks and sediments of the Flynn Subgroup. The Warramunga Formation hosts gold-copper-bismuth mineralisation which is associated with ironstones. The Middle Cambrian Wiso Basin covers the basement rocks in this area.

Little exploration had been previously carried out in the area. Two diamond drill holes completed by Geopeko in 1976 on magnetic anomaly Explorer 124 intersected feldspar porphyry, diorite and microdiorite with moderate to strong disseminated magnetite. The magnetite present in the basement rocks apparently explained the magnetic anomaly.

From 2009 until the end of the 2011-2012 reporting year WDR has carried out a detailed airborne magnetic/radiometric survey (5766 line km), an airborne electromagnetic survey (377 line km), a ground gravity survey (4574 stations), and drilled 7 RC holes (1692 m), three of which were completed with diamond coring (695.5 m).

Work in the 2012-2013 reporting period included an IP survey (18 line km), modelling of IP/gravity/airborne EM/magnetics, and drilling of three diamond holes with RC pre-collars (1429.4 m), with subsequent wireline logging and down hole EM.

The exploration licence has not been explored during the 2013-2014 reporting period due to WDR's major focus on developing its Roper Bar Iron Project, as well as exploring numerous other projects in the NT.

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DIGITAL DATA

DATA FILE NAME	CONTENTS
EL25581_2014_A.pdf	Body text

1 INTRODUCTION

1.1 Background

This exploration licence forms part of the Rover Joint Venture between TNG Ltd and Western Desert Resources Ltd.

1.2 Location and Access

EL 25581 is located approximately 60km south west of Tennant Creek in the central part of the Northern Territory (**Figure 1**).

Access to the area from Tennant Creek is via the Stuart Highway for 7km south of the town. Then via an unsealed road which heads west for approximately 50km to the Kunayungku Outstation. Then via an unsealed track for about 30km to the Rover camp of Westgold Resources/Metals X. An unsealed track south of the Rover camp allows access into the northern part of the EL25581 tenement.

1.3 Climate

The area has an arid, tropical climate with hot summers and mild winters. Rainfall normally occurs during the summer months and is associated with sporadic heavy thunderstorms.

1.4 Topography and Vegetation

The area is flat and devoid of any relief features. It has been assigned to the Tennant Creek Surface landform. The majority of the area is covered by Spinifex grassland and sparse scrub of Mallee and Acacia. Occasional larger trees of Snappy Gum and Bloodwood are found in drainage features.

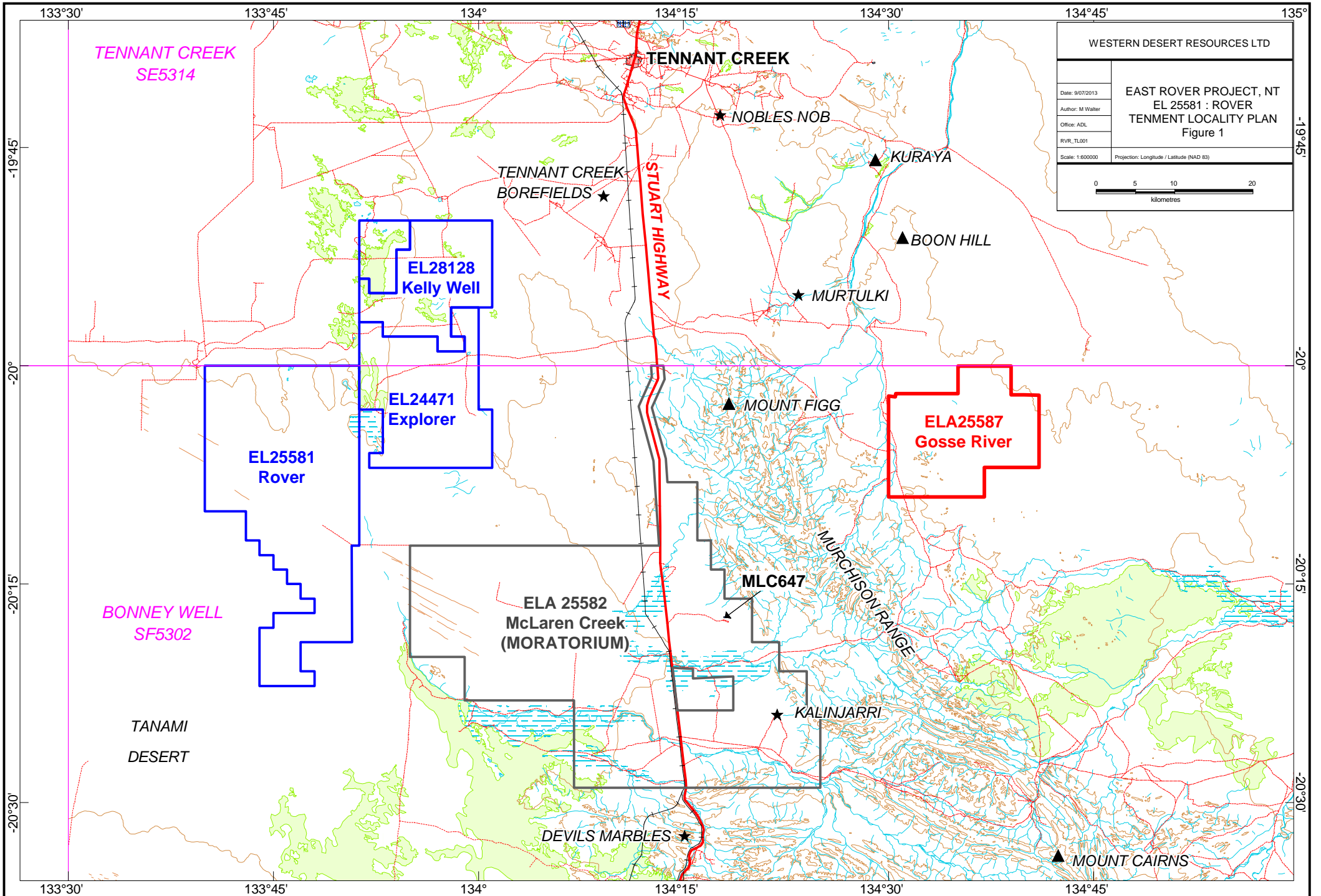
2 TENURE

2.1 Mineral Rights

Exploration Licence 25581 was granted to Tennant Creek Gold Pty Ltd, a wholly owned subsidiary of TNG Ltd, on 11th May 2009. TNG had entered into a farm-in agreement with Western Desert Resources Ltd (WDR) on 27th February 2008, which would allow WDR to earn up to an 80% share in the tenement. WDR is the manager of the joint venture.

2.2 Land Tenure

The tenement is located on Aboriginal Freehold Land owned by the Karlantijpa South Aboriginal Land Trust.



TENNANT CREEK
SE5314

TENNANT CREEK

★ NOBLES NOB

▲ KURAYA

TENNANT CREEK
BOREFIELDS ★

▲ BOON HILL

★ MURTULKI

EL28128
Kelly Well

EL24471
Explorer

EL25581
Rover

ELA25587
Gosse River

▲ MOUNT FIGG

BONNEY WELL
SF5302

ELA 25582
McLaren Creek
(MORATORIUM)

MLC647

MURCHISON RANGE

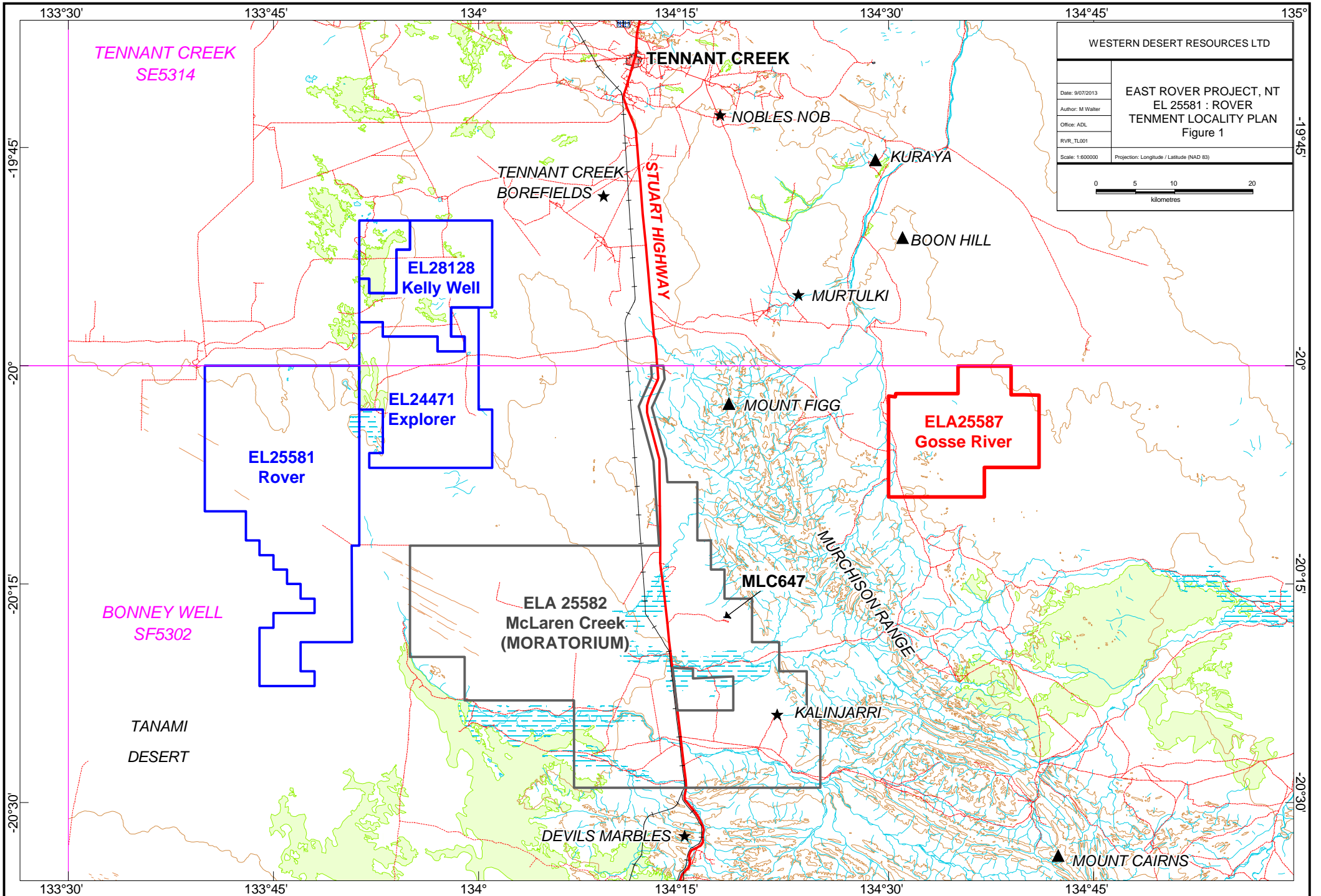
TANAMI
DESERT

★ KALINJARRI

★ DEVILS MARBLES

▲ MOUNT CAIRNS

WESTERN DESERT RESOURCES LTD	
Date: 9/07/2013	EAST ROVER PROJECT, NT EL 25581 : ROVER TENMENT LOCALITY PLAN Figure 1
Author: M Walter	
Office: ADL	
RVR_TL001	
Scale: 1:600000	Projection: Longitude / Latitude (NAD 83)



2.3 Native Title

The area is subject to the Aboriginal Land Rights (NT) Act. A Deed for Exploration between the Central Land Council and Tennant Creek Gold was executed on 6th May 2009.

2.4 Aboriginal Sacred Sites

In 2009 the Central Land Council carried out sacred site clearances in the northern part of the tenement at the sites of the then proposed drill holes (i.e. the holes drilled in the 2009-2010 and 2010-2011 reporting period). The Porcupine Swamp in the eastern part of this area was designated an exploration exclusion zone. No other sacred sites were identified. In 2012 a further sacred site clearance survey was carried out. This survey covered the full extent of the northern part of EL25581 (as opposed to just surveying proposed drill sites). The majority of the area was cleared for all future exploration work, with a new exclusion zone being identified in the southwestern part of that northern area.

3 GEOLOGY

3.1 Regional Geology

The area is located on the western margin of the Tennant Creek Inlier (Donnellan et al 1999). The central part of the Inlier is comprised of the Tennant Creek Province of Palaeoproterozoic age. This consists of a flysch sequence, the Warramunga Formation, which has been intruded by granitoids. The sedimentary sequence is overlain by extrusive volcanic rocks and associated sediments of the Flynn Subgroup.

The Warramunga Formation hosts the gold-copper-bismuth mineralisation of the Tennant Creek goldfield. The mineralisation is associated with ironstone.

The Middle Cambrian Wiso Basin covers the basement rocks west of the Tennant Creek Inlier. This is a sedimentary sequence consisting of the Montejinni Limestone and the Hooker Creek Formation (sandstone and siltstone).

3.2 Local Geology

There are no outcrops within the exploration licence which is covered by sand. The area is underlain by Wiso Basin sediments which have been intersected in widely spaced water bores and exploration drillholes. These sediments thicken to the west.

Drilling carried out by explorers to the west of the tenement has shown that Proterozoic rocks occur beneath the Wiso Basin succession. Drilling at the Rover Prospect, located about 700m west of the northwest corner of EL25581, has intersected gold and copper mineralisation associated with ironstones similar to that found in the Tennant Creek goldfield.

4 PREVIOUS EXPLORATION

4.1 Mining History

There has been no mining activity on EL 25581.

4.2 Exploration by Previous Companies

The only exploration previously conducted in the area was that undertaken by Geopeko Ltd in the period 1973 to 1976. This work was carried out within EL954 and consisted of an airborne magnetic survey, ground magnetic surveys and diamond drilling.

Three diamond drillholes were drilled on the magnetic anomaly "Explorer 124" (**Figure 5**). Two of the holes (DDH 1 and DDH 3) were completed to target depth; the third hole (DDH 2) was abandoned at 99m. The Wiso Basin sediments intersected in the holes consisted of shales, siltstones and sandstones and were about 90m thick. The basement rocks were found to be feldspar porphyry, diorite and microdiorite with moderate to strong disseminated magnetite. The magnetite present in the basement rocks explained the magnetic anomaly.

4.3 Previous Exploration Completed by WDR 2009 - 2013

In 2009 a helicopter airborne magnetic/radiometric survey was flown over the northern part of the exploration licence. The data was collected on east-west flight lines at a line separation of 50m and a terrain clearance of 50m. A total of 5766Km's was flown.

Based on the magnetic anomalies identified, seven RC percussion drillholes totalling 1692m were completed in early 2010. Diamond tails (NQ2) were completed on three of the previous RC holes.

The seven drill holes underwent geophysical downhole logging. The logs include natural gamma, density, magnetic susceptibility, resistivity and conductivity.

Re-assaying of Wiso Basin intersections at 0-100m (RC drilling) shows that phosphorus levels are variably elevated. Drill holes ERRC002, ERRC004 and ERRC005 show elevated phosphorus. Further investigation into the potential for phosphate to occur at shallower depths would focus on areas where there is potential for sequence/stratigraphic onlap of the Wiso Basin sediments on to basement highs.

The re-assaying of samples (RC) for Cu shows widespread but variable weak anomalism, both within the Warramunga Formation and within the overlying Wiso Basin Sediments, but particularly at the contact between the Wiso Basin and the underlying bed rock. The present interpretation is that the elevated copper within the Wiso Basin was probably sourced from the underlying Warramunga Group.

Thin sections were made from a selection of 19 drill core pieces and investigated by Alan Purvis.

The mineralogical investigation of core samples showed that most of the samples consisted of foliated and altered volcanoclastics (siltstone and sandstone at macro-scale) and coarse volcanic fragmentals. Alteration consists of sericite/clay, quartz, carbonate, chlorite, hematite and leucoxene. The latter is interpreted to be after original disseminated magnetite. Pyrite and chalcopyrite were rarely observed. The sample of gabbro mentioned in the mineralogical report is from a clast.

The observed alteration as mentioned above, together with quartz +/- chlorite +/- hematite veins, and the rare chalcopyrite and trace gold mineralisation, are thought to be akin to that associated with the Tennant Creek style of Au/Cu deposits, albeit in a much weaker form. The feeling of the author and colleagues is that the alteration and very weak mineralisation is due to the passage of Tennant Creek style fluids through the rock but that there has been no trapping or focussing mechanism in place, or at least not where the holes were drilled. However, there has only been one hole drilled into each of the initial seven chosen magnetic targets. Relative to historical and on-going exploration by other companies in the Tennant Creek area, at least three exploration drill holes, and often a few more than that, are required to test a single magnetic anomaly.

The existing diamond core from ERRC002EXT, ERRC005EXT and ERRC006EXT was sampled and assayed for gold and multi-elements. A total of 409 new samples were cut and assayed, excluding duplicates and standards. A consultant structural geologist was used to assist with the structural logging of drill core and interpretation of that structure in conjunction with that interpreted from magnetics. That report by Laing was included with the 2011-2012 EL25581 Annual Report.

A clear picture has emerged, especially in the following particular features:

Bedding and lithological units show clearly, and have a generally E-striking orientation, quite different from the consistently WNW-trending shear zones.

Two sets of mineralising structures, which channel and deposit magnetite and/or Cu+Au sulphide, consist of two sets:

- a. shear zones SZ, trending WNW to NW, and
- b. faults, trending N-S to NNE.

The latter are entirely consistent with a N-S macrofault identified during relogging of ERRC005, with its chlorite±sulphide signature. The drillcore results are extremely informative and constrain the regional geophysical analysis with very close correspondence. This major N-S fault set is confined to the western part of the region analysed and has only a small number of discrete faults at the scale of analysis. It appears to be a potent new set of mineralising structures

Magnetite occurs at three different structural-metasomatic sites:

- a. infill ("F") within and on the edges of faults and shear zones
- b. selvedge ("S") along shear zones (foliation and contained lithological bands)

c. selvedge ("B") along bedding and lithostratigraphic units.

All new assay data reported from the resampling program was provided with the 2011-2012 EL25581 Annual Report . There were no significant new assay results, the best being ERRC002; 0.6m @ 0.15g/t Au & 0.34% Cu from 270m downhole depth.

In April 2011 an airborne electromagnetic & HELITEM (EM) survey was carried out on EL 25581. The survey comprised 18 lines for a total of 377Km.

The purpose of the survey was to determine the existence and locations of bedrock conductors and for better understanding of the subsurface geology within the survey areas. The EM data and the magnetic data were reprocessed to produce images and profiles that are indicative of the magnetic and conductive properties of the survey areas.

The interpretation of the observed data demonstrates that, due to the thick conductive cover, the basement conductivity variations (anomalies) are not directly identifiable in the observed data but only become prevalent after model processing. Thus it is difficult to characterise the quality of the identified conductors.

However the interpretation of the models for the traverses in the corridor adjacent to the Rover 1 deposit indicate that there are 14 priority 1 (P1) conductor responses/anomalies of similar character, or better, to that which is recorded on the traverse adjacent to Rover 1 mineralisation. In addition to the priority 1 anomalies identified in the area there are several other interesting conductive features. These are rated lower as the amplitude of the conductivity is lower and/or the form of the anomaly (shape) is not what one would expect from a discrete conductor.

A total of 4574 gravity stations (including repeats and base stations) were surveyed at the Rover Project in 2012. Both the HELITEM and the gravity survey focussed on the north east corner of the tenement where the west-northwest magnetic trends hosting the Rover 1 and Rover 4 deposits continue into EL25581.

Data from the 2011-2012 gravity survey was processed and modelled. The main aim of the modelling was to identify discrete dense bodies. The modelled gravity shells were combined with previously modelled magnetic shells and airborne EM anomalies and then visually analysed in 3D. Finely contoured images of gravity and magnetics were also used to identify subtle anomalies, as well as not-so subtle but previously ignored features. Then in conjunction with the above geophysical modelling three areas were chosen for an Induced Polarisation (IP) survey.

An Induced Polarisation (IP) survey was carried out by SearchEX (Adelaide) in the northern part of EL25581 during July-August, 2012. Eight IP lines were completed on three grids for around 18 line Km total. The western grid was over a second order residual gravity anomaly immediately along trend from the Rover 1 deposit. The central grid covered semi-coincident subtle gravity and magnetic anomalies hidden amongst broader and stronger magnetic/gravity features with a nearby Priority 1 AEM anomaly. The location of these features was interpreted to be a possible south-easterly continuation of the Rover 1 trend having been faulted and offset to the south. The eastern grid was based on combined gravity anomalies and modelled AEM conductors.

Modelling of the IP survey results identified three “high priority” chargeability features. In conjunction with the previous gravity and magnetic modelling, 3 drill holes were planned.

The three holes targeted combined IP-gravity anomalies, while 12ER001 also targeted an AEM modelled conductor. None of the three drill holes intersected either material that would easily explain the IP anomalies or any potentially economic mineralisation. The highest gold value returned was 0.165 ppm Au, while the highest copper value was 480 ppm Cu, both associated with quartz-chlorite-pyrite veins.

Hole 12ER001, targeting an IP anomaly/density anomaly/AEM anomaly was drilled almost entirely in intermediate volcanics intrusive monzonite intersected from 305 m to the end of the hole at 467 m.. The intrusive would explain the gravity anomaly at that location. The volcanics/intrusive of 12ER001 included some epithermal-type veins with mega-coarse bladed carbonate. These veins returned low level gold up to 0.165 ppm Au. There were also common thin veins of quartz-chlorite+pyrite varying to quartz+orange limonite, some of which returned elevated arsenic and occasionally very low gold values. The veins show that there has been some hydrothermal mineralising activity taking place and the potential exists for a mineral deposit in the area. The IP anomaly has not been explained and further work is warranted.

Holes 12ER002 and 12ER003, targeting IP and density anomalies several hundred metres and on trend from the Rover 1 deposit, penetrated approximately 150 m of Cambrian Wiso basin siliciclastic and carbonate sediments before intersecting the Warramunga Formation fine grained sediments. The Warramunga Formation siltstones and mudstone showed mixed alteration styles dominated by sericite alteration, hematite+/- carbonate alteration and chlorite alteration. When present the hematite alteration was weak but pervasive giving a red to maroon hematite “wash” appearance. The carbonate appears as white beds varying to irregular remnant beds. Chlorite alteration tended to be intense and pervasive in narrow zones of apparent breccia. Assayed intervals covered all types of alteration and veining. There were no significant assay values returned.

Wireline logging was carried out. Then logging reached close to final depths in the first two holes but only reached 70 m in 12ER003. The logs include natural gamma, density, magnetic susceptibility, resistivity and conductivity.

Down Hole EM was used in an attempt to locate possible off-hole conductors that might explain the IP anomalies. The results showed no indication of off-hole conductors.

5 EXPLORATION COMPLETED DURING THE REPORTING PERIOD

The exploration licence has not been explored during the term due to WDR's major focus on developing its Roper Bar Iron Project, as well as exploring numerous other projects in the NT.

6 PROPOSALS FOR FUTURE WORK

WDR intends to commence exploration work on the project during the next term. The proposed work program comprises petrophysical measurements on core from 3 diamond drill holes drilled in 2012. The results will be used to redefine the geophysical models used to target those 3 holes and possibly identify targets deeper than previously modelled. This may lead to further diamond drilling (assuming 2 holes approximately 600m in depth) subject to a target(s) being identified.

7 REFERENCES

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