



**ABM**  
RESOURCES NL

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ABN 58 009 127 020

**GROUP  
ANNUAL REPORT**

For  
EXPLORATION LICENCES  
**EL 23888 "Stafford"& EL 28083 "Stafford SE"**

**REYNOLDS RANGE PROJECT**

From the  
5 September 2012 to 4 September 2013

**NIL WORK REPORT**

<b>Holder</b>	ABM Resources NL
<b>Operators</b>	ABM Resources NL,
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<b>Date</b>	October 2013
<b>Email</b>	joer@abmresources.com.au
<b>Target Commodity</b>	Gold
<b>Datum/Zone</b>	GDA94/ MGA Zone 53
<b>250,000 mapsheet</b>	Napperby (SF5309)
<b>100,000 mapsheet</b>	Reynolds Range (5453)

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File: jr68 DME 28083, 23888 GR251\_12 2013 Reynolds Range

## CONTENTS

	Page
1.0 ABSTRACT .....	1
2.0 INTRODUCTION.....	1
3.0 TENURE .....	1
4.0 GEOLOGY AND MINERALISATION.....	2
5.0 PREVIOUS EXPLORATION.....	3
6.0 EXPLORATION COMPLETED.....	5
7.0 RECOMMENDATION and CONCLUSIONS.....	5
8.0 REFERENCES.....	5

## TABLES

Table 1	Tenement Details
Table 2	Exploration Summary for the second year (12 Aug 05 to 11 Aug 06)
Table 3	Exploration Summary for the year ending 11 Aug 2010

## FIGURES

Figure 1	Project Location & Tenement Locality	1 :2,000,000
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## PLATES

Plate 1	Interpreted Geology	1 : 100,000
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## APPENDICES

FILE	DESCRIPTION
GR251_2013_GA_01.pdf	Group annual report 2013

## ACKNOWLEDGEMENT AND WARRANTY

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## 1.0 ABSTRACT

The ABM Resources NL (ABM) Reynolds Range Project is located approximately 230 kilometres north-northwest of Alice Springs in the western Arunta region (Figure 1). The project comprises three granted Exploration Licences, EL 28083, EL 23888 and EL 23655. ABM explores the project for the potential of gold mineralisation.

As ABM focused on bringing the high-grade Old Pirate Gold Deposit at its Bonanza project into production through staged development, commencing with trial mining and processing, no exploration was conducted during the reporting period; therefore this report covers nothing that was conducted during the reporting period.

## 2.0 INTRODUCTION

EL 23888 and EL 28083 are explored as part of ABM Reynolds Range project. The project, comprising EL 23888, EL 28083 and EL23655, is located approximately 230 kilometres north-northwest of Alice Springs (Figure 1). The licence area lies within the Napperby, and Reynolds Range map sheets and is situated about 300 km southeast of the Granites mine.

Access to the Reynolds Range project area is via the Tanami Road, and then via an unsealed tracks from Yuendumu. Various station tracks provide further access throughout the licence area.

This group report covers exploration carried out in the reporting period from the 4 September 2012 to 5 September 2013.

## 3.0 TENURE

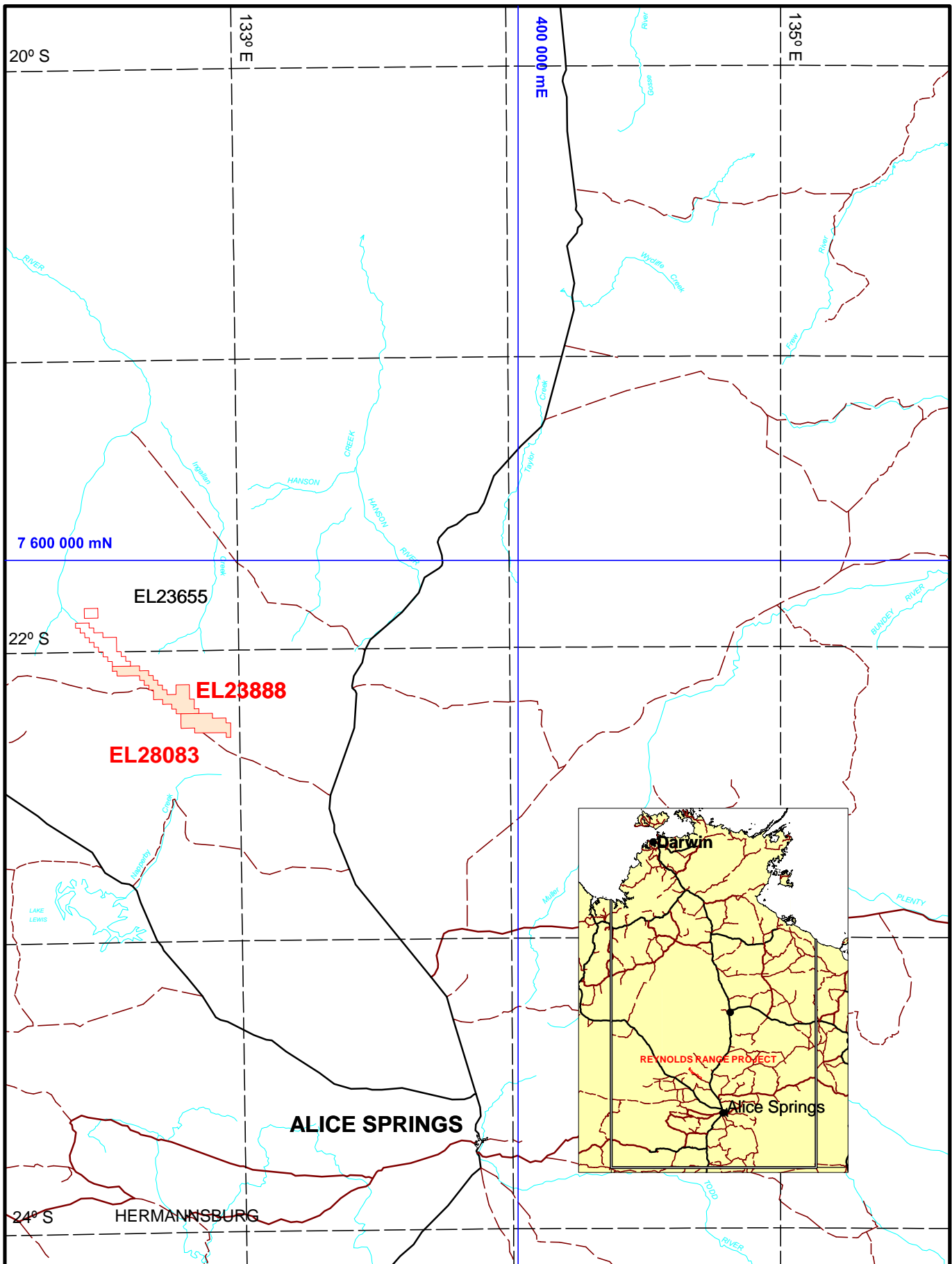
EL 23888 was granted over an area of 149 blocks to Newmont Gold Exploration Pty Ltd (Newmont). Tanami Gold NL (TGNL) entered into an option agreement with Newmont on 28 May 2004. On 19 December 2006, 100% ownership of EL 23888 was transferred to TGNL. In 2008, TGNL introduced a third party, DYL, which had the right to explore for uranium within EL 23888. DYL withdrew from the joint venture during 2009

At the end of the third year of term, EL23888 was reduced to 75 blocks. The licence area was further reduced to 56 blocks at the end of the fourth year of term. A waiver from the requirement to relinquish ground at the end of the fifth year of term had been approved by DRDPFR.

In December 2009, ABM purchased EL 23888 from TGNL.

EL 28083 was granted over an area of 37 blocks to ABM on the 31<sup>st</sup> of January 2011 for a period of six years.

On the 26<sup>th</sup> April 2012 EL 23888 was approved to be amalgamated together with EL 28083 for technical reporting and the group reporting ID GR 251/12 was allocated. The reporting period for this title group was set to 05 September to 04 September with a report submission due date at the 4<sup>th</sup> November each year.



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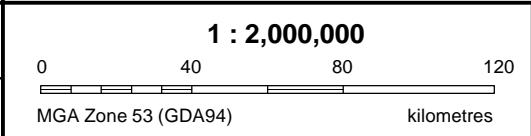
**REYNOLDS RANGE PROJECT**

ORIGINATOR:  
**J.Rohde**

DATE:  
**June 2013**

DRAWN:  
**J.Rohde**

**TENEMENT LOCATION**  
**EL 23888 and EL 28083**



**FIGURE 1**

To align the reporting period for the group report with the set reporting period two bridging reports were completed in October 2012.

At the 19th February 2013 a renewal of EL 23888 was granted for a term of two years. The current tenement area is shown in Figure 1, with tenement details summarised below in Table 1.

Table 1: Tenement Details

Tenement No	Tenement Name	Current Blocks	Grant Date	Expiry Date
EL 23888	Stafford	56	12 Aug 04	11 Aug 2014
EL 28083	Stafford SE	37	31 Jan 11	31 Jan 2017

In the first year of tenure, an Indigenous Land Use Agreement covering EL 28083 was negotiated by ABM with the Central Land Council on behalf of the traditional owners.

#### 4.0 GEOLOGY AND MINERALISATION

The Reynolds Range Project covers Palaeoproterozoic metasediments and intrusives in the central Aileron Province of the Arunta region. The surface geology has been mapped and described by the Northern Territory Geological Survey (NTGS) in the 1:250,000 scale Napperby (SF53-09) sheet and in more detail by the Bureau of Mineral Resources on the special edition Reynolds Range Region 1:100,000 scale geological map.

Widespread gold anomalism was identified within greenschist-facies metasediments along the eastern side of the Reynolds Range in the early 1990's. Gold is hosted by sulphidic quartz veins and has been interpreted to broadly correlate with gold mineralisation in the Tanami region.

On a regional scale the area has a very complex geology with polydeformed Palaeoproterozoic Lander Group metasediments, which host gold mineralisation, intruded by numerous felsic and mafic intrusive phases and overlain by slightly younger siliciclastic metasediments, including the Reynolds Range Group. The area is also covered by very complex regolith, with scree shedding from substantial hills cut by large drainage systems.

Most of the gold mineralisation in the Reynolds Range Region appears to be concentrated along a relatively narrow corridor of greenschist facies Lander Rock Formation metaturbidites. Where there is good exposure in the central northeastern part of the belt, in the vicinity of Troutbeck-Bowness, folding in the Lander beds has northwest-striking axes, plunge towards the southeast and verges towards the southwest with steep southwestern limbs and gently dipping northeastern limbs (English, 2006).

The highest grade gold mineralisation is at the Sabre and Falchion prospects. A sharp increase in metamorphic grade occurs towards the northeast where granulite facies is encountered and these rocks have been named the Mt Stafford Formation. High grade intercepts do occur in rocks of higher metamorphic grade, such as the Black Knight Prospect, but in this case it appears to be associated with retrograde greenschist facies metamorphism. Gold mineralisation occurs in a number of different geological settings and with a number of different metal associations.

The project area is interpreted to be underlain by three major north-west orientated lithological units. High magnetic / high metamorphic grade Lander Rock Beds (Aalh) along the north eastern tenement boundary is bordered to the south by low magnetic / low metamorphic grade Lander Rock Beds (Aall) which form the main lithological unit in the centre of the tenement. Minor low magnetic / moderate to high magnetic granitic units (Agn/Agm) as well as Dolerite units (P-OD) are located on the three tenements (Plate 1).

## 5.0 PREVIOUS EXPLORATION

Exploration in the first year of tenure consisted of regional desktop studies, including geophysical and geological interpretations. The study confirmed that a major Trans-Tanami structural corridor which runs through the area hosts the known gold mineralisation.

A review of the open file reports by Poseidon Gold, Normandy Exploration and Exodus minerals was completed for the Reynolds Range area. There are numerous untested anomalies (surface geochemical and geophysical) as well as prospects with economic grades and widths. Diamond and RC drilling was completed at Sabre, Falchion, Assegai and Yataghan, but only hammer RAB, blade RAB, vacuum or surface sampling elsewhere. A couple of historic Au-Cu mines (Reward, Pine Hill) are situated southeast of the Sabre-Falchion area (Plate 1). Gold is commonly associated with Sb, Pb and As. Geochemical sampling data obtained from Newmont and from open file reports were transferred to the TGNL database and validated.

Diamond drillcore was also retrieved from Newmont's Ivy camp and relogged. A number of brief reconnaissance trips were undertaken through the area, but the absence of comprehensive work area clearances limited these trips to logistical planning.

During the final reconnaissance trip in the Reynolds Range area, previous drilling and grid lines, prospect mapping and sample sites were identified. A total of 24 rockchip samples were collected with some encouraging results:

- RRK004 1494ppb Au, 190ppm As, 10ppm Cu and
- RRK009 7775ppb Au, 668 ppm As, 25 ppm Cu from the Sabre area and
- RRK023 12,149 ppb Au, 44 ppm As, 1176 ppm Bi and 5405 ppm Cu from a known prospect ca 1.1 kilometers southwest of Sabre.

In the second year of tenure exploration included geological and regolith mapping and interpretation, rock chip and vegetation sampling, RAB, Aircore and SLRC drilling in two drilling phases. The activities details and the results are described in the second annual report in Rohde, C., 2006. An exploration summary is listed below in Table 2.

Table 2: Exploration Summary for the second year (12 Aug 05 to 11 Aug 06)

Activity	Details
Geological and Regolith Mapping / Interpretation	1:100,000 map
Rock Chip Sampling	66 samples
Vegetation Sampling	29 samples
RAB Drilling	76 holes, 2,570 metres
Aircore Drilling	16 holes, 863 metres
SLRC Drilling	42 holes, 2,220 metres

Significant rock chip results were returned from the known Falchion mineralization with a maximum value of 11.5 ppm. Results of vegetation sampling highlighted detectable concentrations of various metals, including Au.

In 2005 RAB, Aircore and slimline RC drilling was completed testing three regional targets and three advanced targets, Falchion, Sabre and Yataghan South. In 2006 RAB drilling was on untested Lander beds south and parallel to Sabre and Falchion.

At Falchion the width and tenor of previously identified mineralisation was confirmed, including an intercept of 14m at 3.8g/t Au from 5m (RRA009). Step-out drilling also extended the known mineralised structure along strike in both directions, with intercepts of 4m at 1.5g/t Au from 40m depth (RRA011) over 50 metres to the east, and 4m at 0.5g/t Au from 44m depth (RRB2326) over 100 metres to the northwest.

At Yataghan South infill drilling established the main structural orientation and confirmed continuity of previously recognised mineralisation, returning a best result of 20m at 0.5g/t Au from 16m which included 4m at 1.2g/t Au from 20m depth (RRN026).

The drilling at Sabre was disappointing with only moderate anomalism returned from the traverse across the interpreted fold hinge and further west across the interpreted opposing limb to the main Sabre mineralisation.

In the third year of tenure no field work was conducted.

In the fourth year of tenure, TENL introduced a third party, DYL, to the project to assist with exploration funding. DYL carried out a reconnaissance trip to investigate access to the tenement area. No field work was carried out.

In the fifth year of tenure exploration was carried out by DYL and comprehended three reconnaissance trips field trips and a night time thermal infrared data interpretation. The field trips and the night time thermal infrared data interpretation resulted in the identification of two east west trending palaeo-ponds, which did not have apparent direct surface expressions of buried paleochannels.

In 2009/2010 ABM completed surface sampling as well as RC and diamond drilling on E L 23888 'Stafford'. A summary of exploration is listed in Table 3.

Table 3: Exploration Summary for the year ending 11 Aug 2010

Exploration Activity	Details
Rock Chip Sampling	8 samples
Termite Hill Sampling	1 sample
RC Drilling	4 holes, 1165 metres
Diamond Drilling	4 holes, 1092.5 metres

Significant surface sample (rock chip) assay results were returned from both the Pine Hill Prospect with a maximum value of 1.79 g/t Au (PH200004) as well as from the Reward Prospect with maximum value of 271g/t Ag (RW 200005) and a 20.30% Cu (RW200006) assay value.

In 2010 RC and Diamond drilling tested targets of a high grade sediment hosted veins style along the Stafford Mineralised Zone. The results at the Sabre Prospect extend the mineralised zone to a width of more than 120 metres. Best intercepts were associated with sulphidic quartz veining in metamorphosed silt and sandstones (semipelite and psammite) and included 17meters @ 3.93g/t gold including 2 meters of 18.15g/t Au came from the Sabre Prospect. At the Falchion Prospect the best intersection returned 29m at 2.32g/t Au and 32m at 1.84 g/t Au also in conjunction with quartz veins



hosted within metamorphosed sandstone. The one RC hole drilled at the Assegai prospect returned no significant intercepts.

In 2011 no on ground exploration was carried out during the newly implemented combined reporting period ending 4 October each year. Three previously unreported surface samples from outcropping quartz veins and quartz lag material were reported. No significant surface sample assay results were returned from both sampling sites with a maximum value of 0.003 ppm Au from BKSL300001 (on EL 23655).

In 2012 exploration across ABM's Reynolds Range Project during the reporting period included the completion of a medium density airborne electromagnetic (AEM) survey of a total of 1,638 line km with a 400m line spacing and a line direction of 42 degrees. The nominal terrain clearance was 100m.

The 582km<sup>2</sup> project covering survey was completed by Fugro Pty Ltd. The survey data was processed and interpreted under exploration aspects by Fathom Geophysics.

As a result eight high conductivity targets were generated. Four anomalies fell on EL 23888 (2\_17, 2\_18, 2\_19, 2\_12) and none of the anomalies fell on EL 28083. .

## 6.0 EXPLORATION COMPLETED

ABM conducted no exploration during the reporting period, as it focused all its exploration efforts and financial commitments on the transition from exploration to trial mining of the high-grade Old Pirate Gold Deposit at its Bonanza project.

## 7.0 RECOMMENDATION and CONCLUSIONS

No recommendation and conclusions can be made other than the 2012 recommended follow up of the encountered geophysical anomaly targets.

## 8.0 REFERENCES

Ding, P. & James, P.R., 1985. Structural evolution of the Harts Range area and its implications for the development of the Arunta Block, Central Australia. *Precambrian Research*, 27, 251-276.

Ding, Puquan, 2001. Pre-Cenozoic solid geology map of the Strangways Range to Harts Range area, Explanatory Note. Unpublished TGNL in-house report.

Rohde, C., 2004. First Combined Annual Report EL's 9814, 22387, 23483 and 23486 Napperby Project for the Year Ending 3 March 2004. Unpublished Tanami Gold NL In-house report.

Rohde, C., 2005. Second Combined Annual Report EL's 9814, 22387, 23483 and 23486 Napperby Project for the Year Ending 3 March 2005. Unpublished Tanami Gold NL In-house report.

Rohde, C., 2005. First Combined Annual Report on Exploration Licences 23486, 23923, 23924 and 23991 Reynolds Range Project for the year ending 31 May 2005. Unpublished report by Tanami Exploration NL.

Rohde, C., 2005. First Annual Report EL 23888 Stafford, Reynolds Range. Unpublished report by Tanami Exploration NL.

Rohde, C., 2006. Second Annual Report EL 23888 Stafford, Reynolds Range Project, for the year ending 11 August 2006. Unpublished report by Tanami Exploration NL.

Rohde, J., 2006. Fifth Annual Report EL 23888 Stafford, Reynolds Range Project, for the year ending 11 August 2009. Unpublished report by Tanami Exploration NL.

Rohde, J., 2010. Six Annual Report EL 23888 Stafford, Reynolds Range Project, for the year ending 11 August 2010. Unpublished report by ABM Resources NL.

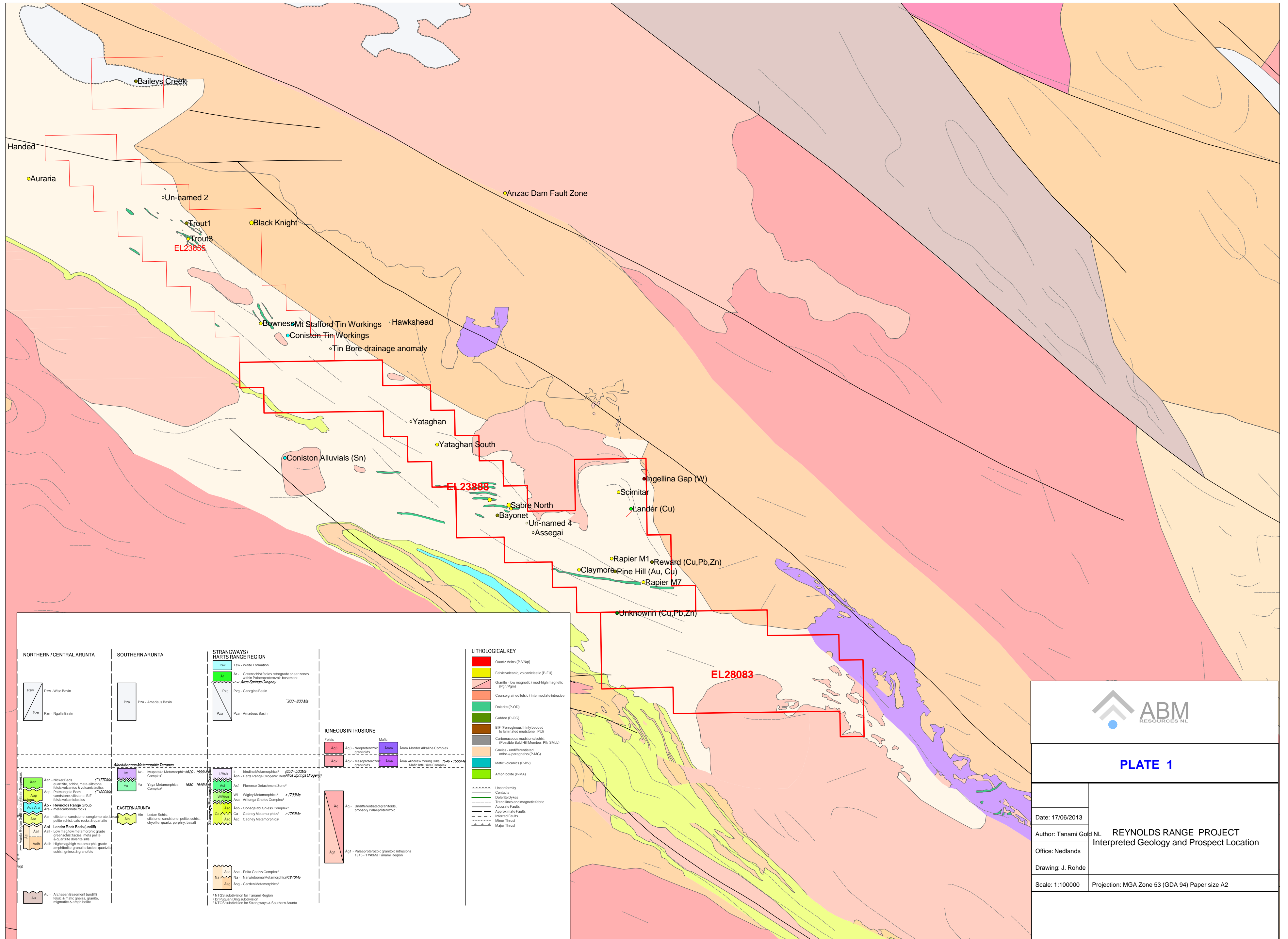
Rohde, J., 2010. Seventh Annual Report EL 23655 Lander, Reynolds Range Project, for the year ending 11 June 2010. Unpublished report by ABM Resources NL.


Rohde, J., 2011. Combined Annual Report EL 23888 'Stafford' & EL 23655 'Lander' Reynolds Range Project from the 12 June 2009 to 04 October. Unpublished report by ABM Resources NL.

Rohde, J., 2012. Bridging Report EL 23888 'Stafford' Reynolds Range Project from the 12 August 2011 to 4 September 2012. Unpublished report by ABM Resources NL.

Rohde, J., 2012. Bridging Report EL 28083 'Stafford SE' Reynolds Range Project from the 31 January 2012 to 4 September 2012. Unpublished report by ABM Resources NL.

Rohde, J., 2013. Annual Report EL 23655 'Lander' Reynolds Range Project from 12 June 2012 to 11 June 2013, Unpublished report by ABM Resources NL.





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**PLATE 1**

Date: 17/06/2013	<b>REYNOLDS RANGE PROJECT</b> Interpreted Geology and Prospect Location
Author: Tanami Gold NL	
Office: Nedlands	
Drawing: J. Rohde	
Scale: 1:100000	Projection: MGA Zone 53 (GDA 94) Paper size A2