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SEL 24980

Kestell

FINAL REPORT

LICENSEE:
GIANTS REEF EXPLORATION PTY LTD
A.B.N.009 200 346
(A wholly owned subsidiary of Emmerson Resources Ltd)

28 April 2006 – 14 September 2011

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DECEMBER 2011

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MAP SHEETS:

☐	TENNANT CREEK	SE53-14
☐		
☐	KELLY	5658
	TENNANT CREEK	5758
☐		1:100 000

Table of Contents

FIGURES

1. SUMMARY

This Final Report records exploration work done on SEL 24980 between 28 April 2006 and 14 September 2011.

Emmerson's considers the area covered by SEL 24980, now covered by EL 28775 to be highly prospective. During 2010 Emmerson applied the VRMI concept to the area revealing extensive VRMI anomalism. Drilling of this anomalism confirmed the presence of ironstone, although assay results were mixed. Emmerson's application of HeliTEM and the success of the 'Proof of Concept' drilling of HeliTEM anomalies in the Gecko Area has increased the potential for SEL 24980. Emmerson will continue with 'Proof of Concept' drilling for the remainder of 2011, should success continue then during 2012, Emmerson will look to conduct further HeliTEM surveys of its highest ranked prospective areas, SEL 24980 (now EL 28775) would be one of these, with the aim of identifying areas HeliTEM targets within the VRMI anomalism for drill testing.

Emmerson considers SEL 24980 to be highly prospective and is encouraged by early interpretations of the HeliTEM and VRMI data and will continue exploration over the area under the newly granted SEL 28775.

2. INTRODUCTION

Substitute Exploration Licence 24980 KESTELL, is located approximately between 8km and 25km west of the Tennant Creek Township. The licence falls on the Tennant Creek (5758) and Kelly (5658) 1:100 000 scale map sheets.

Figure 1 below, shows the location of SEL 24980 and surrounding tenure.

This Final Report records exploration work done on SEL 24980 between 28 April 2006 and 14 September 2011.

3. LOCATION

Substitute Exploration Licence 24980 KESTELL, is located approximately between 8km and 25km west of the Tennant Creek Township. The licence falls on the Tennant Creek (5758) and Kelly (5658) 1:100 000 scale map sheets.

Access to the Licence area is via the Chariot Mine Access Road, which leads to the eastern portion of the licence. From here the rest of SEL 24980 is reached via a series of south trending unsealed, 4x4 and fence line tracks. The southernmost portion of the licence can be accessed by driving south along the Stuart Highway then turning west onto a dirt road that leaves the Stuart Highway about 6km south of Tennant Creek Town and heads west to the Kunayungku community. From along this road, a number of station tracks and 4WD tracks can be followed to the southern portion of the licence. During and immediately after rain the area is generally inaccessible.

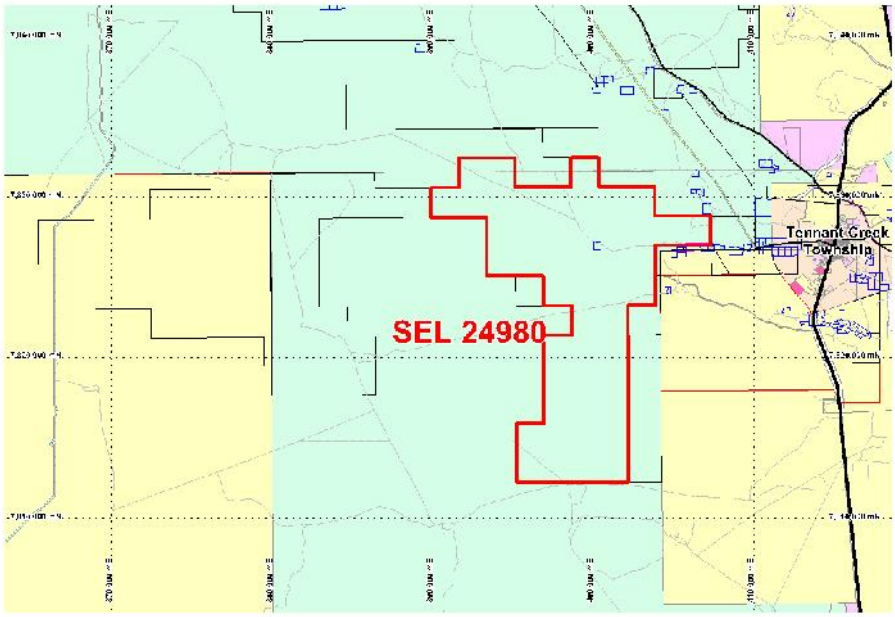

Figure 1: Location of SEL 24980.

4. TENURE

Substitute Exploration Licence 24980 Kestell, was granted to Giants Reef Exploration Pty Ltd on the 28 April 2006 for a period of four years, with a two year renewal term granted in 2010. The SEL covers an area of 48 graticular blocks (155.23 km^2).

SEL24980 lies within NT Portion 494, Perpetual Pastoral Lease 1142, Tennant Creek station and NT Portion 408, Perpetual Pastoral Lease 946, Phillip Creek.

SEL24980 is subject to an Indigenous Land Use Agreement (ILUA) signed in September 2000 between the Native Title holders of the Tennant Creek region, represented by the Central Land Council (CLC), and Giants Reef. Article 3.1c of the ILUA provides that the ILUA covers the application for any future exploration tenure within the above mentioned Perpetual Pastoral Leases.

SEL 24980 expired on 14 September 2011.

5. GEOLOGY

5.1 Regional Geology

The reader is referred to AusIMM Monograph 14 (Geology of the Mineral Deposits of Australia and Papua New Guinea), Volume 1, pp. 829-861, to gain a good introduction to the regional geology and styles of gold-copper mineralisation of the area.

In 1995 the Northern Territory Geological Survey released a geological map and explanatory notes for the Flynn 1:100,000 sheet, which covers the area of the licenses.

The rocks of the Warramunga Formation host most of the orebodies in the region and underlie most of the Exploration Licenses.

5.2 Local Geology

The Licence is located in the western region of the Tennant Creek Province.

The geology in SEL 24980 consists of a thick sedimentary sequence of silt and sandstones of the Proterozoic Warramunga Formation. The Warramunga Formation is host to all the magnetite-haematite (ironstone–hosted) gold-copper-bismuth ore bodies in the Tennant Creek goldfield. The area is blanketed by a layer of colluvium and aeolian sand up to seven metres thick.

Three well defined structural corridors transect and converge, at the Trinity Anomaly, within the SEL. These structural corridors, Chariot – Peko Corridor, Mt Samuel – Nob Corridor and the Southern Shear Corridor are all best defined as an east-west trending corridors, and contain significant historically producing mines of the Tennant Creek Field, such as, Chariot, TC8, Eldorado, Malbec, Peko, Juno and Nobles Nob.

The Chariot gold deposit which is located 1.4km east of the Licence is hosted by a buried haematite > magnetite dominated ironstone. Limited outcrop and subcrop in the Licence

suggests the presence of haematitic shale, siltstone, sandstone, ironstone and porphyry bodies.

The Malbec gold deposit (20.,585 oz Au) which is located 250m east of the Licence is hosted by a buried haematite-quartz-magnetite ironstone. Mineralisation is confined to the sheared footwall contact of a larger competent ironstone. Mineralisation is contained both within sheared chloritic footwall sediments and ironstone. Mining of the Malbec West mineralisation was completed in December 2004.

6. EXPLORATION

6.1 Targets and Concepts

Exploration for large base metal deposits possibly associated with a regional gravity anomaly, termed the Bluebush Anomaly, centred in the central and eastern parts of the licence and extends east into adjoining Licences, with additional targets including Tennant Creek-type ironstone hosted Au-Cu-Bi ore bodies.

Proterozoic Inliers world-wide, and particularly in Australia, are renowned for their iron-rich mineralisation and world class base metal deposits. For many years prominent geologists and researchers in the industry have pointed out the geological similarities that the broader Proterozoic Tennant Creek Inlier shares with the Gawler Craton, host to the Olympic dam deposit, and to the Eastern Succession of the Mt Isa Inlier that hosts the Ernest Henry and Selwyn deposits. These similarities, though recognised, had not been widely acted upon by the industry.

Exploration was aimed at discovering large deposits of base metals along with substantial gold and/or silver, probably accompanied or hosted by large volumes of iron oxide minerals.

Giants Reef's target model iron oxide-rich lithologies and are therefore likely to be associated with regional or district-scale gravity anomalies, and potentially coincident with a magnetic anomaly.

The discovery of the haematite-magnetite Chariot deposit in 1998 has shown the potential for variations on the classic magnetite ironstone hosted gold +/- copper deposits, where lower order magnetic anomalies, plus gravity methods can define new targets. Discoveries by Giants Reef of mineralisation such as at Malbec West, Marathon and Billy Boy further support this. Giants Reef considers the potential for the discovery of mineralisation in hematite dominant ironstones in the relinquished group is limited.

6.2 Exploration Undertaken – 28 April 2006 to 14 September 2011

The License was acquired to search for IOCG deposits and to evaluate the extent of mineralisation associated with the Navigator Fault zone, Warramunga Formation and the Warrego/Red bluff Granites.

Most of the exploration conducted over SEL 24980 was done under the previous EL's. SEL 24980 is a consolidation of previous GRE and San tenure, namely EL's 9309, 9915, 9935 & 9988.

EL 9309

Year One

Exploration work carried out during the first year of tenure, from 29th November 1995 to 28th November 1996 included:

- A regional geological and aeromagnetic interpretation – This interpretation was conducted to the detail of distribution of granite.

- Open file study was completed.

Year Two

Exploration work carried out during the second year of Giants Reefs tenure, from 29th November 1996 to 28th November 1997 included:

- Geology and geological reconnaissance - A total of 36 line kilometres of geological reconnaissance traversing was carried out. Digital Satellite imagery was purchased to assist with structural interpretation.

- Sampling - During the geological reconnaissance, four rock chips and one soil sample were collected. Assay results are tabled below:

Sample ID	Au (ppb)	Au1 (ppb)	Ag (ppm)	Co (ppm)	Cu (ppm)	Fe (%)	Mn (ppm)	Ni (ppm)
136291	1	2	1	<2	7	2.31	182	2
136292	1	7	8		23	17.0	400	13
136293	21	24	1	2	52	1.96	390	14
136294	2		1	3	17	1.93	153	8
136295	11	12	2	11	59	4.3	1110	20
Method	FALL	FALL	G300I	G300I	G300I	G300I	G300I	G300I

- Geophysical open file research - Open file gravity data was collected and bouguer values produced. This showed a steep gradient between the granite, which is expressed as a gravity low, and the interpreted Warramunga Formation.

Year Three

Exploration work carried out during Giants Reefs third year of tenure, from 29th November 1997 to 28th November 1998 and included:

• Geology and geological reconnaissance - A reconnaissance trip to look for basement outcrops was made in August 1998. All major tracks, as shown on the available geological, topographic and tenement maps, were followed. As with a shorter trip made the year before, this more extensive coverage produced no new outcrops. In the north western three blocks of the Licence, Warramunga Formation siltstones and shales were found to have been dug up during the laying of the Amadeus Basin to Darwin gas pipeline, and these occur nearby in a few places nearby as small ground-level outcrops. No other Warramunga Formation or outcrops were seen anywhere else in the EL, nor any granite, although the presence of thinly-covered granite in the central part of the EL is suggested in current geological maps and in the available aeromagnetics data. Hard limestone outcrops were noted in the southeast and south of the Licence area.

• Rock chip sampling - Three rock samples (numbers 59578, 59579 and 59580) were collected just to the west of the current north-western two blocks of the EL. Assaying returned nothing anomalous, and the results are tabled below:

Sample ID	Description	Au (ppb)	Cu (ppm)	Bi (ppm)	Fe (%)
59578	Ironstone or ferricrete.	<1	8	<5	25.4
59579	Possibly a sheared rhyolite.	<1	5	<5	5.95
59580	Blackish-brown iron-rich rock: ?ferricrete	<1	3	<5	21.6

• Magnetic target identification - During a study of the aeromagnetics data flown by GeoPeko in the mid-1980s (which only covers a small northern portion of the EL), three magnetic anomalies were observed which were seen as targets for future ground investigation. These targets are located in a group, less than 2 kilometres apart from each other, as follows:

	AMG Easting	AMG Northing
Anomaly P	394500E	7828300N
Anomaly Q	394900E	7827400N
Anomaly R	395200E	7828000N

Anomaly Q has the highest magnetic amplitude of the three.

• Detailed aeromagnetic survey - In October 1998, a detailed aeromagnetic survey was flown over the northern part of EL 9309 and extensive surrounding areas. Key specifications of the survey, which was flown by Kevron Geophysics Pty Ltd, were north-south flight lines 50 metres apart, at a height of 40 metres above ground.

Year Four

Exploration work carried out during Giants Reefs fourth year of tenure, from 29th November 1998 to 29th November 1999 included:

• Literature search - Mineral Claim C140 was located in the eastern part of Area 1 of the Licence. The claim was surrendered by Normandy Gold Pty Ltd on 25 November 1998, and thus fell into EL 9309.

• Magnetic target modelling - In October 1998, a detailed aeromagnetic survey was flown by Kevron Geophysics Pty Ltd for Normandy Tennant Creek Pty Ltd, over an extensive east-west belt at least 70 kilometres long covering the southern part of the established Tennant Creek goldfield. The northern section of EL 9309 lies within the western end of the survey area. Key survey specifications were north-south flight lines 50 metres apart, at a flying height of 40 metres. Normandy kindly presented Giants Reef with aeromagnetic survey data covering the various Giants Reef tenements within the survey area, including Area 1 of EL 9309. Barrett Geophysical Exploration Consultants Pty Ltd, of Perth, WA, were contracted to review the survey data and to note and model any magnetic anomalies which could be ironstones or other magnetic features of exploration interest. Eleven magnetic anomalies were identified, named Anomaly A to Anomaly K. Note that three anomalies previously identified from the older, broader-spaced mid-1980s aeromagnetic survey, were included in the new list of targets. These are Anomalies P, Q and R, now re-named as Anomalies A, C and B respectively. Anomalies A, B, C, D, and F were rated as high priority. These are all at depths which could be tested by RC percussion drilling. The anomalies are in the area where two long-recognised regional mineralised trends converge. One of these trends includes Wheal Doria, TC8, Gibbet, Chariot and The Extension. The other line includes Nobles Nob, Juno, Eldorado and Mt Samuel.

• Reconnaissance - A reconnaissance trip to the northern block of the Licence to see if Anomaly D, interpreted from the 1998 Normandy aeromagnetics, had a visible surface expression. This seemed possible, as it was the shallowest of the four anomalies modelled. Anomaly C was also visited on the ground. The area is flat and access was difficult, via an old overgrown track from The Extension workings. No outcrops or evidence of iron-rich material was seen at either anomaly. Several old grid pegs were noted at Anomaly D.

• Soil sampling - At Anomaly D, 11 soil samples (450032 to 450042) at 50m paced intervals along a north-south 500m traverse were collected. Wooden pegs were put in to mark the sample sites. Samples were dug from below 10cm depth, and sieved to –3mm in the field. They were all of a dark red fine sandy soil, and showed little variation. The position of this line was determined by GPS at AMG 396375E with its north end at 7827700N (sample 450032) and south end at 7827200N (450042). The samples were

sent to Australian Laboratory Services Pty Ltd for analysis by the "Regoleach" partial extraction method PE010, and by method IC205 for a minus-80 mesh sieved sub-sample. Both sets of samples were analysed for Cu, Pb, Zn, Ag, Bi, Ni, Co, Cd, Mn and Fe. Results do not show any clear anomalies, although the Regoleach results reach a mild peak in the middle of the traverse for several elements, including Pb, Ag, Bi, Co, and Mn. This pattern was not reflected in the minus –80 mesh set of results.

• Agreement with Billiton Exploration Australia Pty Ltd - After many months of negotiation, an agreement was signed with Billiton Exploration Australia Pty Ltd. Under the agreement, Billiton acquired approximately 7% equity in Giants Reef, in return for providing funding for the exploration, by Giants Reef, of four project areas in the Tennant Creek region. These project areas are located within the Tennant Creek 1:250 000 sheet area, but in little-explored areas outside the established goldfield. Targets are very large iron oxide-gold-copper and/or base metal occurrences which were expected to be substantially different in size and style from the "typical" Tennant Creek mines which have been discovered and worked up until now.

Year 5

Exploration work carried out during Giants Reefs fifth year of tenure, from 29th November 1999 to 29th November 2000 included:

• Further magnetic interpretation and modelling was carried out during the fifth year of EL 9309 by Frank Lindeman of Lindeman Geophysics Pty Ltd, Victoria. From this work, Anomaly D at AMG 396375E 7827445N was ranked as the highest priority target based, on structural and geological interpretation. Anomalies A, B, C and E appeared to coincide with interpreted Treasure Suite dolerite/diorite sills or dykes, and as such were down-graded as drill targets. His review of Anomaly D arrived at a similar model to the earlier one, calculating the source body vertex at approximately 50 metres depth. Although the anomaly is not far from the other documented Treasure Suite basic intrusions (A,B,C and E) it is still possible that this anomaly represents a shallow magnetic ironstone body. As reported during the fourth year of tenure, soil sample Regoleach results over Anomaly D indicated a mild peak coincident with the anomaly position, including Pb, Ag, Bi, Co, and Mn. At the time it was thought that this peak was probably just "noise" but the later geophysical re-evaluation suggests the results might have been real. Frank Lindeman also recognised another shallow magnetic source during his review, named Anomaly X. Anomaly X at AMG 399164E 7822673N was described as very shallow source body, with its vertex calculated at 1.4 metres below ground level. It is situated about 2km northwest from the N14 prospect, referred to in Giants Reef's fourth annual report on EL 9309, and was seen as another valid target for future drilling.

• Reconnaissance - A reconnaissance trip to the northern block of the Licence to see if Anomaly X had a visible surface expression. It was hoped to find outcrop or surface scatter that would suggest whether the anomaly was due to a Treasure Suite basic intrusion, or to an ironstone. The anomaly was reached by travelling along the Amadeus/Darwin gas pipe spur to the nearest point to the anomaly, then southeast through the bush to the anomaly, which was located by GPS. The area is flat with low scrub vegetation and access through the bush was reasonably good. No outcrops or evidence of iron-rich material was seen at the anomaly. A spade hole was dug to a depth

of approximately 0.6 metres in fine red loamy sand, but no bedrock was reached. A sample was collected from the hole and later washed. The coarse fraction consisted of rounded stones of weathered quartz and sediments up to about 8mm diameter and was clearly part of the overburden. It is quite likely that the bedrock is much deeper than the modelled 1.4 metres. A steel star picket was left to mark the location.

• Water bore hydrogeochemical sampling - Groundwater geochemical data can be used to identify variations in concealed lithologies that may relate to aquifer prospectivity for base metal mineralisation. As part of a wider semi-regional study, one water sample (GR013) was collected within EL 9309 from a sealed Northern Territory Water Resources (NTWR) bore. The bore is located at AMG co-ordinates 392353E 7814660N and has a NTWR Registered Number of 12138. The water level in this bore at the time of collection was 6.5 metres. The sample was collected from a depth of 11.5 metres. Approximately 1.5 litres of sample was collected and sent for analysis to Principal Research Scientist Angela Giblin of CSIRO, Department of Exploration and Mining, in North Ryde, NSW for analysis. Several field measurements were taken, including pH, Eh, ambient and sample temperature, sample conductivity and salinity. Sparse remnant granitic drill chips around the collar pipe were also collected. These data were provided to Angela Giblin to assist in her interpretation. All laboratory analytical data used were co-ordinated, compiled and verified within the CSIRO Exploration and Mining North Ryde Groundwater Pathfinders Project. Chloride, fluoride, and carbonate analyses were performed using Inductively-Coupled Plasma and Mass Spectrometry techniques. Arsenic and gold determinations were finished at the by Bequerel Laboratories using AGAL and Neutron Activation Analysis. Interpretation of analytical results was conducted on a regional scale with GR013 forming part of a larger comprehensive data set. Analysis and interpretation of sample GR013 resulted in four primary conclusions: a) Sample GR013 is sodium-dominated, suggesting the groundwater flow path has been in contact with non-mafic rather than mafic lithologies. b)the sample exhibited pH-Eh values which when plotted on an appropriate Fe mineral stability field diagram, were indicative of an aquifer environment in which magnetite or sulphide minerals could exist. c) the sample plots in the same silicate mineral field as occupied by groundwaters from mineralised locations at Tennant Creek and elsewhere. d) The sample is weakly anomalous in copper.

• Indigenous Land Use Agreement - EL 9309 was subject to an Indigenous Land Use Agreement (ILUA), signed in September 2000 with the Native Title holders of the Tennant Creek region and the Central Land Council. A large number of other tenements and EL applications in the region are also subject to the ILUA. These are all on the Tennant Creek and Phillip Creek Pastoral Leases. The ILUA provides for 25 years of continuity of tenure, and covers any present or future Exploration or Mining Tenement applications and development within the above Pastoral Leases.

Year 6

Exploration work carried out during Giants Reefs sixth year of tenure, from 29th November 2000 to 29th November 2001 included:

• Clearances from Native Titleholders - Under the terms of Giants Reef's Indigenous Land use Agreement with the Native Titleholders of the Tennant Creek region, it was necessary to obtain clearances from the Native Titleholders before the field party for the

planned gravity survey could enter the area. Assisted by the Central Land Council, field visits were made to the survey area, including Area 2 of EL 9309, and the necessary clearances were given. One proviso was that the survey field party would stay away from salt lakes, clay pans and other natural depressions. In the event, this condition did not present any real difficulties for the field operations.

• Gravity survey - As part of the detailed gravity survey over the Bluebush gravity anomaly, 12 stations were read within the southern part (Area 2) of EL 9309. The helicopter-borne gravity survey was carried out by Daishsat Pty Ltd of Murray Bridge, South Australia, using a Bell 47 G5 helicopter (VH-TZW) hired from Heli-Muster Pty Ltd at Victoria River Downs, NT. As well as covering relatively small areas of EL 9309 and EL 10402, the gravity survey also included very large parts of adjacent ELA 8882, and EL 8883. The whole survey, on a nominal grid spacing of 1km x 1km, totalled 648 stations. The survey commenced on 2nd June and finished on 6th June, 2001. Two Scintrex CG-3 gravity meters were used for the gravity data acquisition. Each loop started and ended at the Tennant Creek airport gravity base station. For horizontal and vertical GPS control, four GPS receivers (two Leica GPS and two Ashtech Z12's) were used. One point (station 1) was set up on top of one of the Giants Reef transportable office buildings in Tennant Creek, and the other (station 2) was a short star picket in the paddock between Giants Reef's yard and the Tennant Creek airport. Navigation from station to station was done using Garmin GPS II+ instruments. Generally, the reading points were within 100m of their planned round-number co-ordinates, although inevitably some stations had to be read further away from the intended locations because of ground features such as mulga thickets preventing helicopter landings at the optimal positions. Giants Reef's consultant geophysicist Frank Lindeman, of Lindeman Geophysics Pty Ltd, Melbourne, was on hand in Tennant Creek to supervise the survey and make suggestions for any changes or modifications to the work on a day-by-day basis.

• Results of gravity survey - No gravity anomalies or residual gravity anomalies were noted in Area 2 of EL 9309 that held any interest as possible drilling targets. Later re-assessment of the data altered this finding, post drilling in the neighbouring EL's may have produced a better geological understanding of the Bluebush district. All the gravity information gained from the survey over EL 9309 and adjacent larger EL's was put into the public domain, as part of the newly-released NTGS/AGSO gravity database covering the whole Tennant Creek 1:250,000 sheet.

Year 7

Exploration work carried out during Giants Reefs seventh year of tenure, from 29th November 2001 to 29th November 2002 included:

• Clearances from Native Title holders - Under the terms of Giants Reef's Indigenous Land Use Agreement (ILUA) with the Native Titleholders of the Tennant Creek region, it was necessary to obtain clearances from the Native Title holders before the field party for the planned RC drilling could enter the area. Assisted by the CLC, field visits were made to the survey area over two days, and the necessary clearances were given. One proviso was that the drilling field party would stay away from the outcrop at the Old Extension Mine and that no mature trees (any species) are to be disturbed by drilling activities or access track construction. The clearance team recommended the use of the pre-existing

town gas pipeline route for access to Anomaly X. These conditions did not present any real difficulties for the field operations. The Central Land Council representing the traditional Aboriginal owners of the land approved the proposed drilling activities in late July 2002.

• RC Drilling - One site was selected for a shallow vertical drill hole in EL 9309 at Anomaly X;

HOLE ID	Easting (AGD84)	Northing (AGD84)	Azimuth	Depth	Target	Notes
SHRC-001	399165	7822673	Vertical	83m	Anomaly X	Sep-2002

The drilling contractor was Gomex Drilling, of Dry Creek, South Australia. The total amount of reverse circulation drilling was 83m and the samples were riffle split in 1-metre intervals on site and then sent to AMDEL Laboratory in South Australia for geochemical analysis. The 1m samples were composited into consecutive 2m samples prior to analysis by laboratory staff. All samples were assayed for Au by AMDEL method FA3, and for Cu, Bi, Fe, Ag, As, Cd, Co, Mn, Mo, Ni, Pb, Zn, Cr, P, Sb, and V, by AMDEL method IC2E. No significant geochemical anomalies were observed in the results. Geological logging of SHRC-001 was completed from chip trays post drilling. In summary bedrock was intersected from 16m down-hole and consisted of weathered/saprolitic gabbro. As the rocks became fresher (>60m) the lithology appeared to be more like a dolerite with minor haematite “dusting” seen in some feldspars. A 2m-granodiorite vein was intersected from 71-73m however, the majority of rock identified during the drilling was unaltered dolerite/gabbro. Geological logging was completed on site, using a Hewlett Packard 200LX palmtop computer and downloaded in the evenings. Downloaded geology data was then validated and printed out as a separate log sheet and then loaded into a MicroMine database, along with collar, survey and assay data. Magnetic susceptibility of all drill chips, was carried out and recorded on the drill chip log using a Kappameter KT-5 Magnetic Susceptibility Meter. The lithology intersected coupled with the magnetic susceptibility of the drill chips from SHRC-001 is consistent with rocks of an intrusive mafic nature. No further drilling of this target was recommended.

• Petrography - After the drilling described above, one RC chip basement sample (76-78m) was sent for petrographic confirmation to Ian Pontifex and Associates Pty Ltd, Adelaide, to assist in rock identification and description. The petrography and overall geochemistry suggested that the basement rock examined in SHRC-001 is recrystallised hypersthene dolerite with partly ophitic and partly recrystallised orthopyroxene, recrystallised clinopyroxene, clear plagioclase laths, biotite and opaque oxide. Some areas are highly altered to actinolite and sericite with clays after orthopyroxene. In other areas fresh rock passes into quartz-rich areas that seem to represent mafic pegmatites.

• Magnetic Susceptibility Review - Review of the magnetic susceptibility readings collected from SHRC-001 by consultant Geophysicist Frank Lindeman confirmed the presence of a magnetic rock unit intersected between 60m the end of the drill hole. Peak

magnetic susceptibility values of 12x10-3 SI units were recorded against a background of <0.5 to 1.0 x 10-3 SI units. Lindeman considered this down-hole response enough to explain the magnetic response and no further drilling of this anomaly was to be considered.

• Alliance Meeting - A technical meeting was held between Giants Reef and BHP Billiton in Melbourne on the 2nd December 2002. The meeting focussed on recent drilling results from the Bluebush Project Area and included drill hole SHRC-001. Information was presented to BHP Billiton representatives and a digital data was supplied to BHP Billiton. The minutes from the meeting were accepted as accurate, and were signed on the 16th December 2002 by Giants Reef and BHP Billiton.

Year 8

Exploration work carried out during Giants Reefs eighth year of tenure, from 29th November 2002 to 29th November 2003 included:

• Termination of Strategic Alliance - In early 2003, BHP Billiton indicated to Giants Reef that they no longer wished to continue with the Strategic Alliance. Giants Reef prepared a summary report for BHP Billiton detailing all the exploration conducted over the tenements, including EL 9309 during the period of the Strategic Alliance between 1999 to 2003. Correspondence from BHP Billiton on the 25th July 2003, confirmed the termination of the Bluebush Joint Venture and hence the closure of the Strategic Alliance.

• Tenement Review - An internal review of the Giants Reef tenement portfolio and a classification of exploration opportunities in September 2002 assessed the future exploration potential of EL 9309 and the prospects within the Licence. At the time of review, the Licence was currently being explored. The focal point for exploration in the Bluebush Project area was the Bluebush gravity anomaly. The gravity anomaly is located over poorly understood basement geology of undifferentiated Proterozoic rocks and Wiso Basin Cambrian sediments. Review of the drilling to date over the project area downgraded the exploration potential for large base metal deposits. The review recommended that Giants Reef substantially reduce the tenement holding of EL 9309 and to retain only the areas covering identified target areas of Warramunga Formation sediment.

• Assessment of Target Concepts - EL 9903 is located outside the typical Tennant Creek goldfield, and assessment of the underlying geology of the area from the NTGS 1:250 000 geology map (1998) identified the buried geology of Warramunga Formation sediments in the north eastern blocks of the Licence. This formation is host to all the magnetite-haematite (ironstone–hosted) gold-copper-bismuth mineralisation and ore bodies in the Tennant Creek goldfield which was the primary exploration focus for Giants Reef at the time. At the end of the eighth tenure year EL 9309 was due for a renewal. Giants Reef renewed the 10 north eastern blocks of the Licence area which were interpreted to cover Warramunga Formation sediments.

Year 9

Exploration work carried out during Giants Reefs ninth year of tenure, from 29th November 2003 to 29th November 2004 included:

• Tenement Review - At the conclusion of the eighth Tenure Year, Giants Reef were advised to substantially reduce the tenement holding of EL 9309 and to retain only the areas covering identified target areas of Warramunga Formation sediment. Giants Reef applied for a renewal for another two years and also halved the size of the tenement, taking it from 20 blocks to 10 blocks. Only a minimal amount exploration was carried out on this lease during the year, however significant exploration was carried out on an adjacent tenement EL9915, immediately to the east of EL9309. Work completed over EL9309 during the report period comprised data compilation and integration into the GRM's geological information system.

Year 10

Exploration work carried out during Giants Reefs tenth year of tenure, from 29th November 2004 to 29th November 2005 included:

• Tenement Review - An internal review of the Giants Reef tenement portfolio and a classification of exploration opportunities assessed the future exploration potential of EL 9309 and the prospects within the Licence. At the time of review, the Licence wasn't being explored. The focal point for exploration in the Bluebush Project area was the Bluebush gravity anomaly. The gravity anomaly is located over poorly understood basement geology of undifferentiated Proterozoic rocks and Wiso Basin Cambrian sediments. Review of the data to date in the project area downgraded the exploration potential for large base metal deposits. The review recommended that giants reef retain the identified target areas within an SEL (SEL 24980).

EL 9915

Year 1.

Background Research - EL 9915 was originally applied for by Anthappi in July 1997 to cover an area of structurally and magnetically prospective Warramunga Formation. Numerous companies including Roebuck Resources (Roebuck), North Flinders Mining (NFM) and PosGold previously held tenure and explored over this area. The area is mostly sand covered to depths of up to 7m. Minor exposures of porphyry, quartz-haematite ironstone, and sediments of the Warramunga Formation occur, however are not common. The Licences follow an east-west structural lineament which hosts the TC 8 mine, Chariot mine, the developing Malbec West mineralisation and the historic Extension mine (300t @ 19.5g/t Au).

Review of Previous Exploration - Evidence of early prospecting can be seen in the Licence in the form of occasional shallow prospecting pits, and shallow shafts on ironstone exposures. The area now held under EL 9915 was partially held by Metana Minerals NL and in 1990 was included in a joint venture with Placer Exploration Pty Ltd. Placer drilled 126 bedrock geochemical RAB holes (NAB series) perpendicular to the structural trend. Au-Cu-Bi results of 16 ppb Au and 260 ppm Cu were returned which Placer deemed of no interest and they subsequently withdrew from the joint venture. These values were recognised by Roebuck Resources as being significant for the Tennant Creek mineral field and Roebuck secured the Placer Anomaly with two Mineral Claims (MC C1060-1061) and EL 7415 in 1991. Roebuck commenced a fairly aggressive exploration program over what is now the area of EL 9915. Exploration included collection of previous geochemical data

and compilation grid restoration, vacuum and RAB drilling. A ground magnetic survey was also conducted in 1994 over the Placer anomaly.

Literature Review - In 2003 a detailed assessment of the licence was conducted including an assessment of the results of previous exploration conducted by Placer and Roebuck. This assessment highlighted the fact that previous exploration over the tenure had focussed on the targeting of magnetic anomalies to identify magnetic ironstone bodies. Giants Reef noted that limited gravity data exists over the tenure and combined with the large geochemical data set (all in old paper reports) concluded that the potential for new discoveries within the Licence were highly likely.

Tenement Review Ranking - An internal review of the Giants Reef tenement portfolio and a classification of exploration opportunities in September 2002 assessed the future exploration potential for the Licence (at that stage the licence was still under application) and the prospect areas within them. The review was based on the potential to discover high-grade gold mineralisation in both magnetic and haematite-dominant ironstones.

The location of the Chariot gold mine on adjacent EL 10199 made the tenement a highly prospective target area, due to their structural significance and continuity. Additionally the highly developed understanding of the local geology as a consequence of the developing Chariot resource combined with the EL location to existing mine infrastructure ranked this Licence area as a first class exploration project.

Geochemical Data Set Validation - Several hundred vacuum and shallow vertical RAB drill holes were drilled by various companies during a period from 1988 to 1994 within the licence. Several grids were constructed and these were subsequently refurbished after fires etc. Normandy attempted to collate all bedrock geochemical information into a GIS however with all the grids (local and AMG) a major data translation error occurred misplacing the drill collars to up to 300m in some cases. Giants Reef spent considerable time in the field, validating paper coordinates and converting into the one MGA 94 datum system. On completion, these data was imported into Giants Reef's GIS. Reconnaissance and Rock Chip Collection - Various reconnaissance trips were made to the Licence area. During these trips drill hole collars were "picked" up using hand held GPS. Areas of outcrop/subcrop were sampled and briefly mapped. Instruction was given to the field crews conducting the reconnaissance work to stay away from the prominent ironstone outcrop on which the Extension mine workings are situated. It was common knowledge to Giants Reef that this ironstone is culturally significant to the Local Indigenous people of Tennant Creek. A summary of rock chip results and positions is tabulated below:

SAMPLE NUMBER	AGD 84 EASTING	AGD 84 NORTHING	Au (ppm)	Cu (ppm)	Bi (ppm)	Fe (%)	DESCRIPTION
81801	402522	7826201	<0.01	19	<2	11.72	Silicified siltstone from 50cm deep burrow pit
81802	402482	7826226	0.01	21	<2	13.30	Ironstone-Qtz breccia
81803	402477	7826229	0.01	51	14	14.63	Laminated & silicified silt/sandstone in burrow pit
81804	402472	7826277	0.01	111	15	16.40	Haematite ironstone mullock from 1.5m deep pit
81805	402476	7826222	0.03	127	12	12.16	Siltstone mullock from shallow burrow pit.
81806	402369	7826239	0.11	44	102	13.00	Brecciated Qtz-Ironstone subcrop
81807	402330	7826230	<0.01	27	4	17.97	Sheared ferruginous ironstone
81808	402323	7826229	0.01	8	9	12.01	Massive Qtz-Ironstone
81809	402313	7826229	0.02	28	8	12.58	Siltstone & ironstone chips from shallow burrow pit
81810	402127	7826177	<0.01	255	15	15.19	Ironstone gravel and sand from shallow pit
81811	402125	7826177	0.03	297	<2	13.51	Ironstone & sandstone chips from outcrop
81812	402120	7826177	<0.01	87	11	18.90	Massive ironstone with Qtz veining, small vugs
81813	402117	7826174	<0.01	84	124	25.39	Massive ironstone and Qtz slight ferruginous
81814	402098	7826165	<0.01	191	9	17.93	Ironstone rubble western extent of outcrop
81720	402522	7826201	430	15	21	21.3	Worsley – Mullock dump 1
81721	402482	7826226	330	10	23	25.5	Worsley – Mullock dump 2
81722	402477	7826229	506	14	20	25.8	Worsley shaft/working

Mining Management Plan Authorisation Audit - Giants Reef submitted a Mining Management Plan (MMP. The plan was subsequently approved in June 2003 by the Department of Business, Industry & Resource Development (DBIRD) under Authorisation 0148-01. Pursuant to condition 4 of the Authorisation, a security of $6,000 was lodged with DBIRD. This security covered all the tenements included within the West TC8 Project Area, and included EL 9915. On the 5th November 2003 an application for variation to the Authorisation was reviewed and accepted by DBIRD and Authorisation 0179-01 was issued. The security of $6,000 remained against the new Authorisation. In November

2003 DBIRD conducted an MMP Compliance Assessment for the West TC8 Project Area which included the recently completed drilling of the Troika gravity anomaly. The audit reference number was GRE02-MR2002/0263. No issues were identified and it was decided that as the exploration was not complete, a full assessment sign off and security refund was not necessary. Release of the $6,000 security is conditional upon Giants Reef's compliance with the activities and commitments contained in the accepted plan (Authorisation 0179-01).

Year 2.

No on-ground exploration was conducted over the Licences during the year. Giants Reef reviewed the geological targets and models for the exploration Licence to assess the likelihood of an immediate discovery. The review recognised a number of magnetic anomalies which are indicative of Tennant Creek style gold-copper occurrences.

Year 3.

No on-ground exploration was conducted over the Licences during the year. Work during the year included a literature search and review of all previous exploration undertaken in the Licence area. As part of this review all available exploration data was documented, in preparation for validation and integration in the Company's database and GIS.

EL 9935

Year 1.

Background Reasearch - EL 9935 was originally applied for by Anthappi in July 1997 to cover an area of structurally and magnetically prospective Warramunga Formation. Numerous companies including Roebuck Resources (Roebuck), North Flinders Mining (NFM) and PosGold previously held tenure and explored over this area. The area is mostly sand covered to depths of up to 7m. Minor exposures of porphyry, quartz-haematite ironstone, and sediments of the Warramunga Formation occur, however are not common. The Licences follow an east-west structural lineament which hosts the TC 8 mine, Chariot mine, the developing Malbec West mineralisation and the historic Extension mine (300t @ 19.5g/t Au).

Review of Previous Exploration - Evidence of early prospecting can be seen in the form of occasional shallow prospecting pits, and shallow shafts on ironstone exposures. The area now held under EL 9935 was partially held by Metana Minerals NL and in 1990 was included in a joint venture with Placer Exploration Pty Ltd. Placer drilled 126 bedrock geochemical RAB holes (NAB series) perpendicular to the structural trend. Au-Cu-Bi results of 16 ppb Au and 260 ppm Cu were returned which Placer deemed of no interest and they subsequently withdrew from the joint venture. These values were recognised by Roebuck Resources as being significant for the Tennant Creek mineral field and Roebuck secured the Placer Anomaly with two Mineral Claims (MC C1060-1061) and EL 7415 in 1991. Roebuck commenced a fairly aggressive exploration program over what is now the area of EL 9935. Exploration included collection of previous geochemical data and compilation grid restoration, vacuum and RAB drilling. A ground magnetic survey was also conducted in 1994 over the Placer anomaly.

Literature Review - In 2003 a detailed assessment of the Licence was conducted including an assessment of the results of previous exploration conducted by Placer and Roebuck. This assessment highlighted the fact that previous exploration over the tenure had focussed on the targeting of magnetic anomalies to identify magnetic ironstone bodies. Giants Reef noted that limited gravity data exists over the tenure and combined with the large geochemical data set (all in old paper reports) concluded that the potential for new discoveries within the licence were highly likely.

Tenement Review Ranking - An internal review of the Giants Reef tenement portfolio and a classification of exploration opportunities in September 2002 assessed the future exploration potential for the Licence (at that stage the licence was still under application) and the prospect areas within it. The review was based on the potential to discover high-grade gold mineralisation in both magnetic and haematite-dominant ironstones.

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2003 DBIRD conducted an MMP Compliance Assessment for the West TC8 Project Area which included the recently completed drilling of the Troika gravity anomaly. The audit reference number was GRE02-MR2002/0263. No issues were identified and it was decided that as the exploration was not complete, a full assessment sign off and security refund was not necessary. Release of the $6,000 security is conditional upon Giants Reef's compliance with the activities and commitments contained in the accepted plan (Authorisation 0179-01).

Gravity Survey - Daishsat Pty Ltd of Murray Bridge, South Australia were contracted to undertake a regional gravity survey over the Chariot orebody and surrounding tenure, including EL 9935. One Scintrex CG-3 gravity meter was used for the gravity data acquisition. Each loop started and ended at the Tennant Creek airport gravity base station (Gravity base 0034). For horizontal and vertical GPS control, two Leica System 500 dual frequency GPS receivers were used. The gravity base (GPS base 099) was set up at the Chariot mine opposite a fence and gate, which was marked with a short star picket. Gravity observations were made on the regular grids set out by real-time GPS. Two observations were made for each station and each observation consisted of a 20-second or greater stacking time. Two observations were made at each station so that any seismic or instrumental noise could be immediately detected. The accepted tolerance between readings was 0.02 milligals to ensure accuracy. At the survey station the Scintrix CG3 automatically recorded the station, time and readings, which were made digitally to allow for downloading into a computer.

Raw data was processed daily to check for quality and integrity. This interim process produced a set of Bouguer Gravity values, which were contoured and imaged to provide a check for any anomalous reading that would require repeating. Geosoft GRAVRED software was used for the gravity reduction in the field. At the conclusion of the job, the data was reprocessed using the standard AGSO formulae. Giants Reef's consultant geophysicist Mr Frank Lindeman was on hand in Tennant Creek to supervise the survey on a day-by-day basis.

Regional Gravity - The regional gravity survey working east and west of the known mineralisation at Chariot commenced immediately after the completion of a gravity orientation survey over the known mineralisation at Chariot. The regional survey was designed to provide:

(a) information which could map iron-rich lithologies and assist in more focussed planning of major drilling campaigns

(b) target definition and refinement.

Away from the pit area and based on the gravity orientation survey results, the regional gravity survey used 80m line with 20m station intervals. The regional gravity survey, in total, collected 510 stations over Exploration Licence 9935.

Giants Reef's consultant geophysicist Mr Frank Lindeman, of Lindeman Geophysics, Melbourne, was contracted to processes, analyse and geophysically model the gravity survey data. Initial results were encouraging with several new target areas identified.

The gravity survey appears to have added a new dimension to Giants Reef's understanding of the non-outcropping geology and the distribution of non-magnetic ironstone bodies within the Licence area. In areas where magnetic ironstones have been defined and also within completely non-magnetic regions, the gravity data has predicted the existence of several, (mainly shallow) haematite-rich ironstones which could be host to gold mineralisation. The most interesting gravity anomaly with EL 9935 was termed Troika (Russian Chariot pulled by dogs or horses).

The fact that non-magnetic ironstones hosting gold mineralisation are known to exist, yet have not really been explored for previously in the Tennant Creek Goldfield, means that the potential for new discoveries are highly likely. The gravity method used over EL 9935 and surrounding tenure has provided strong encouragement and is considered to be a valuable and developing exploration tool.

Traditional Land Owner Drill Site Clearance - A site clearance for the proposed Troika target holes in EL 9935 was conducted in June 2003 with approval to commence earthworks received from the Central Land Council on 27 June 2003. Routine precautions to protect mature trees were requested when clearing the drill pads however no protected or sacred areas were identified within the two Licence areas. A permit to enter was issued as vehicles needed to travel through Aboriginal Freehold Land held under the Warramunga Land Trust to gain access to the drill sites.

RC Drill Testing at the Troika Gravity Anomaly - A pre-existing, east-west baseline that runs west of the Chariot mine area was upgraded and re-established to allow access into the Troika target area. Grid lines were lightly cleared to allow access to the various Troika drill sites. A small loader was used in the line clearing and preparation of the drill pads.

Hole TKRC 001 was the first exploration hole for the West TC8 Project gravity target program, and was collared on the most westerly gravity line of the gravity survey. Two holes were initially drilled to test a broad anomalous gravity response with no associated magnetic response on the western most gravity line of the survey area. The density contrast for this anomaly was modeled as 2.7 gm/cc (Chariot – 2.0 gm/cc) and modeled thickness was 20m. The drill contractor was Gomex Drilling, Dry Creek, South Australia using a RCD 150 drill rig.

Samples collected during the drilling were riffle split in metre intervals. 3-metre speared, composite samples were collected and sent to North Australian Laboratories (NAL) Pine Creek for analysis. Samples were assayed for Au, Fe, Cu and Bi using FA50 and mixed-acid digest respectively. A low-grade standard was added at the end of each drill hole for analysis, to monitor quality control of laboratory results. Further 1-metre riffle split samples were collected for anomalous intervals (>0.1 ppm Au), and were sent to NAL Pine Creek for the same method of analysis.

The four drill holes were targeting a residual gravity anomaly with no associated magnetic signature. Consultant Geophysicist Frank Lindeman of Lindeman Geophysics Pty Ltd, Melbourne recommended measuring the magnetic susceptibility of all drill chips, which was undertaken at the end of each drill hole, and noted on all drill chip logs using a Kappameter KT-5 magnetic susceptibility meter.

Geological logging was completed on site, using a Hewlett Packard 200LX palmtop computer and downloaded in the evenings. Downloaded geology and magnetic susceptibility data was then validated and printed out as separate log sheets and then loaded into a MicroMine database, along with collar, survey and assay data;

Hole Number	Easting (MGA)	Northing (MGA)	Dip (deg)	Azi (deg)	Depth (m)	Date Drilled	Tenure
TKRC 001	403228	7826520	-60	178	160	17-Aug-03	EL 9935
TKRC 002	403225	7826480	-60	178	124	18-Aug-03	EL 9935
TKRC 005	403190	7826500	-60	178	130	28-Aug-03	EL 9935
TKRC 006	403190	7826480	-60	178	105	30-Aug-03	EL 9935
				TOTAL	**519m**		

Drill hole TKRC 001 intersected 3m of blocky, haematite ironstone and shale from 147m down hole. TKRC 002 was collared 40m south of TKRC 001 to intersect the ironstone up-dip confirming the northerly dipping attitude of the ironstone. Two metres of ironstone, from 72m was intersected in this hole. Anomalous Cu (to 0.8%) and weak gold mineralisation were encountered in TKRC 001 as tabulated below;

Hole Number	From (m)	To (m)	Interval (m)	Au (ppb)	Cu (ppm)	Bi (ppm)	Fe (%)
TKRC 001	144	145	1	190	1120	<20	5.9
TKRC 001	148	149	1	106	8490	<20	5.37

These intersections are narrow and not likely to give rise to any gravity response let alone the large gravity response seen at the western end of the survey area. It would be hoped that more data and geophysical re-interpretation could separate the probable deep regional response from other responses that could relate to shallower ironstones.

An additional two holes were drilled 40m west (TKRC 005 – 006) of the initial drill section which also intersected narrow zones of disseminated ironstone (haematite) and shale. No anomalous gold or base metal assays were returned from either of these holes.

In an area of no outcrop, limited previous exploration and no magnetic response these results are seen to be very encouraging.

Year 2.

No on-ground exploration was conducted over the Licences during the year. Giants Reef reviewed the geological targets and models for the exploration Licence to assess the likelihood of an immediate discovery. The review recognised a number of magnetic anomalies which are indicative of Tennant Creek style gold-copper occurrences.

Year 3.

No on-ground exploration was conducted over the Licences during the year. Work during the year included a literature search and review of all previous exploration undertaken in the Licence area. As part of this review all available exploration data was documented, in preparation for validation and integration in the Company's database and GIS.

EL9988

The main work completed during the tenure period included a combined quantitative/qualitative ranking, based on geological, geochemical & geophysical characteristics and other parameters covering work status, target type, land status and economics. As part of this work geochemical data sets, including all historical drilling data, were integrated into the Company's database and GIS for analysis.

Further refinement of geophysical assessments of the defined magnetic anomalies was conducted and continues. From this detailed review conducted by Centralian Minerals Limited a number of geophysical anomalies were identified. Consideration will be given to a more detailed geophysical survey over these defined anomalies, with the view to generating shallow RAB targets within the prospect area.

A number of reconnaissance field trips were undertaken to inspect target areas previously tested and survey control was undertaken in these areas in preparation for future work.

WORKED PERFORMED UNDER EMMERSON RESOURCES LTD AS SEL 24980

YEAR 1

As a result of the restructure for the sale of Centralian Minerals under administration, all former Centralian Minerals Limited (and its subsidiaries, including Giants Reef Exploration Pty Ltd and Santexco Pty Ltd) tenements were void of in-ground exploration over the administration and Emmerson's purchase period. Emmerson Resources purchased Centralian Minerals Limited and all its subsidiaries, including Giants Reef Exploration on 1st August 2006, and now with the employment of new administration and geological staff Emmerson Resources Pty Ltd will reassess all previous exploration work conducted over the licence area with the aim of generating geophysical/geological test targets, pending favourable results regolith drilling.

Expenditure for exploration on SEL 24980 during year 1 was $836 against a covenant of $90,000.

YEAR 2

During year 2 and following the successful listing and raising of $20 million dollars Emmerson Resources Ltd has commenced an aggressive exploration strategy covering all tenements held by the company in the Tennant Creek Mineral field and included SEL 24980. Exploration activities commenced and included a detailed ground gravity survey, airborne geophysical survey and exploration drilling. The detailed ground gravity survey was conducted over SEL 24980 during June & July 2008. The airborne geophysical survey was conducted during May and June 2008, and included SEL 24980. The data gathered from these surveys was analysed and processed with the aim of generating targets for drill testing.

Expenditure for exploration on SEL 24980 during year 2 was $18,267.10 against a covenant of $80,000.

YEAR 3

During the third year Emmerson successfully built a team of highly qualified and skilled, staff and Geoscientists. Work commenced on the analysis of all historic drilling data, which included the validation and assessment of all Historical drilling over Emmerson Tenure, including SEL 24980 and then the compilation into a database. This work occurred over the entire reporting term.

A Detailed Ground Gravity Survey, conducted by Fugro Ground Geophysics commenced 27 March 2008. This ground gravity survey was conducted over Emmerson's Tennant Creek tenure package and included SEL 24980. The survey was conducted by three teams, each team consisted of a quad bike and rider equipped with a station meter. The three teams were supported by a Toyota Landcruiser 4WD Ute. The readings were taken on a 500m station spacing's, on lines 500m apart oriented North – South. Readings in areas requiring more detail were taken on 50 station spacing's on 100m spaced lines oriented North - South. The survey was completed during October 2008.

443 station readings were taken in SEL 24980 and consisted of 443 Regional readings.

The results from the ground gravity survey were very encouraging with the identification of a large gravity anomaly within SEL 24980, named Trinity, refer to figure 2. The anomaly is positioned at a triple point intersection of three large mineralised corridors; The Chariot - Peko Corridor, The Mt Samuel - Nob Corridor & Southern Shear Corridor, refer to figure 3.

A Detailed Airborne Magnetic, Radiometric and Digital Terrain Survey was conducted by UTS Geophysics and commenced 26 May 2008 and was completed on 22 July 2008. The survey covered areas of the Southern Project Area (SPA) and included SEL 24980 except for the central portion. The survey was flown with a FU24 – 954 fixed wing survey aircraft on 75m line spacing's, with 750m tie line spacing's and a sensor height of 25m for a total Line KM of 38,278, with 2,461km's (approximately 29.5%) being in the SPA. Magnetic Data was captured using a Scintrex Cesium Vapour CS-2 total field magnetometer, Fluxgate three component vector magnetometer, RMS Aeromagnetic

Automatic Digital Compensator (AADC II) and a Diurnal monitoring Magnetometer (Scintrex Envi8mag). Radiometric Data was captured using an Exploranium GR-820 gamma ray spectrometer and Exploranium gamma ray detectors.

The results from these geophysical surveys has enabled Emmerson to identify a number of targets within the SEL. Targets identified in SEL 24980 are; ERM 052, 106, 150, 156, Pinnacles North, Trinity 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12 and 13. These targets were identified from the initial first past analysis of the surveys, with further and with more detailed analysis to be conducted Emmerson expects to identify further targets related to other anomalies within the licence area.

Emmerson engaged the 'Centre for Exploration Targeting' (CET), School of Earth & Geographical Sciences, FNAS, based at the University of Western Australia (UWA) to undertake some focused geological studies of the Tennant Creek Mineral Field, in collaboration with geologists from Emmerson, through a 3 phase program. The Primary focus of the these programs is to undertake structural analysis at a deposit to camp scale of the Tennant Creek Mineral Field. All tenure in the SPA was included in this study which commenced in March 2008 and continued through to the end of the reporting period, and will continue into the next reporting period.

The work under taken by CET in phase 1 of 3 involved targeted work on advanced prospects and deposits in the Tennant Creek Mineral Field, this was used to refine existing targets and provide further data towards generating near mine targets. Phase 2 of 3 involved developing a better regional structural map and structural model, with a core focus on directly linking outcomes with targeting.

Exploration drilling was conducted in SEL 24980. This exploration drilling targeted the Troika prospect. 205 Rotary Air Blast (RAB) holes (TRB001 – 205) were drilled by Wild Drilling between 28 October 2008 and 14 January 2009, for a total of 8,336m, and are detailed in the table below;

Hole No	GDA Easting	GDA Northing	RL	Total Depth	Date Drilled
TRB001	401998.74	7826599.40	329.76	51	28-Oct-08
TRB002	401998.64	7826631.29	329.71	51	30-Oct-08
TRB003	401997.45	7826658.42	329.73	51	30-Oct-08
TRB004	401995.55	7826690.80	329.67	51	30-Oct-08
TRB005	401994.33	7826719.84	329.79	51	30-Oct-08
TRB006	401992.55	7826749.78	329.74	51	31-Oct-08
TRB007	401990.94	7826779.56	329.76	51	31-Oct-08
TRB008	402098.46	7826636.03	329.80	51	31-Oct-08
TRB009	402096.69	7826665.52	329.78	21	31-Oct-08

TRB010	402097.89	7826609.49	329.80	39	16-Nov-08
TRB011	402097.84	7826695.10	329.76	30	16-Nov-08
TRB012	402092.55	7826726.32	329.77	30	16-Nov-08
TRB013	402092.47	7826754.05	329.77	36	16-Nov-08
TRB014	402090.31	7826785.68	329.77	30	16-Nov-08
TRB015	402190.28	7826791.03	329.77	30	16-Nov-08
TRB016	402191.95	7826761.89	329.75	30	16-Nov-08
TRB017	402193.64	7826731.23	329.83	49	16-Nov-08
TRB018	402190.56	7826706.65	329.77	36	17-Nov-08
TRB019	402291.66	7826792.65	329.94	36	17-Nov-08
TRB020	402489.77	7826806.84	330.22	45	17-Nov-08
TRB021	402491.97	7826777.31	330.17	30	17-Nov-08
TRB022	402493.93	7826746.39	330.15	33	17-Nov-08
TRB023	402491.82	7826718.15	330.17	30	17-Nov-08
TRB024	402494.21	7826687.34	330.21	30	17-Nov-08
TRB025	402495.75	7826655.20	330.18	30	18-Nov-08
TRB026	402501.34	7826626.90	330.24	33	18-Nov-08
TRB027	402398.17	7826620.59	330.05	30	18-Nov-08
TRB028	402397.50	7826650.73	329.95	48	18-Nov-08
TRB029	402396.70	7826681.07	329.97	33	18-Nov-08
TRB030	402394.68	7826710.17	329.96	39	18-Nov-08
TRB031	402392.91	7826740.38	330.02	36	19-Nov-08
TRB032	402298.43	7826645.58	329.84	42	19-Nov-08
TRB033	402299.64	7826616.73	329.97	36	19-Nov-08
TRB034	402505.67	7826597.94	330.18	54	20-Nov-08
TRB035	402509.13	7826574.93	330.30	32	20-Nov-08
TRB036	402093.52	7826466.68	330.00	48	20-Nov-08
TRB037	402098.38	7826438.00	329.96	30	20-Nov-08
TRB038	402105.84	7826410.34	329.98	39	21-Nov-08

TRB039	402109.31	7826378.72	330.07	30	21-Nov-08
TRB040	402058.83	7826372.40	330.10	30	21-Nov-08
TRB041	402055.23	7826399.06	330.02	30	21-Nov-08
TRB042	402049.53	7826428.74	330.02	30	21-Nov-08
TRB043	401836.40	7826759.39	329.54	36	21-Nov-08
TRB044	401834.88	7826733.71	329.64	33	21-Nov-08
TRB045	401838.99	7826712.94	329.73	30	21-Nov-08
TRB046	401842.39	7826674.53	329.67	33	22-Nov-08
TRB047	401841.92	7826660.48	329.81	30	22-Nov-08
TRB048	401843.67	7826636.20	329.76	39	22-Nov-08
TRB049	401844.29	7826612.73	329.75	30	22-Nov-08
TRB050	401795.43	7826608.98	329.81	33	22-Nov-08
TRB051	401792.60	7826632.27	329.72	36	22-Nov-08
TRB052	401791.79	7826658.02	329.73	33	22-Nov-08
TRB053	401790.38	7826682.50	329.70	30	23-Nov-08
TRB054	401789.10	7826707.22	329.62	33	23-Nov-08
TRB055	401786.64	7826730.95	329.53	30	23-Nov-08
TRB056	401785.33	7826759.73	329.62	30	23-Nov-08
TRB057	401735.61	7826752.70	329.62	36	23-Nov-08
TRB058	401737.65	7826728.99	329.61	30	23-Nov-08
TRB059	401739.21	7826704.94	329.66	30	23-Nov-08
TRB060	401741.11	7826678.81	329.65	30	24-Nov-08
TRB061	401739.82	7826651.93	329.66	33	24-Nov-08
TRB062	401741.50	7826630.27	329.68	30	24-Nov-08
TRB063	401743.64	7826606.88	329.78	30	24-Nov-08
TRB064	401694.39	7826601.81	329.74	30	24-Nov-08
TRB065	401693.04	7826625.90	329.70	42	24-Nov-08
TRB066	401694.27	7826657.38	329.70	30	25-Nov-08

TRB067	401692.86	7826676.86	329.57	30	25-Nov-08
TRB068	401687.82	7826702.15	329.58	33	25-Nov-08
TRB069	401687.77	7826722.18	329.52	36	25-Nov-08
TRB070	401686.09	7826745.95	329.39	30	25-Nov-08
TRB071	401635.94	7826752.36	329.59	30	25-Nov-08
TRB072	401635.69	7826730.44	329.51	30	25-Nov-08
TRB073	401639.35	7826701.88	329.62	30	25-Nov-08
TRB074	401641.24	7826674.29	329.63	30	27-Nov-08
TRB075	401592.44	7826602.02	329.78	30	27-Nov-08
TRB076	401643.30	7826599.64	329.75	36	27-Nov-08
TRB077	401642.02	7826624.37	329.71	42	27-Nov-08
TRB078	401640.88	7826650.78	329.68	42	27-Nov-08
TRB079	401593.27	7826622.39	329.70	42	28-Nov-08
TRB080	401591.95	7826645.78	329.71	45	28-Nov-08
TRB081	401590.16	7826673.15	329.69	39	28-Nov-08
TRB082	401589.49	7826695.10	329.61	42	28-Nov-08
TRB083	401587.96	7826721.17	329.53	51	01-Dec-08
TRB084	401587.35	7826746.89	329.49	42	01-Dec-08
TRB085	401531.79	7826843.75	328.77	42	02-Dec-08
TRB086	401533.24	7826820.15	329.00	57	02-Dec-08
TRB087	401534.55	7826794.33	329.13	51	03-Dec-08
TRB088	401534.63	7826769.41	329.19	39	03-Dec-08
TRB089	401537.18	7826746.91	329.20	39	03-Dec-08
TRB090	401538.89	7826719.63	329.33	39	03-Dec-08
TRB091	401539.54	7826693.16	329.51	39	04-Dec-08
TRB092	401540.82	7826669.28	329.64	39	04-Dec-08
TRB093	401491.05	7826666.66	329.50	39	04-Dec-08
TRB094	401489.46	7826691.09	329.41	42	04-Dec-08

TRB095	401488.36	7826717.62	329.36	42	04-Dec-08
TRB096	401487.01	7826741.75	329.15	39	04-Dec-08
TRB097	401485.96	7826766.33	329.05	51	05-Dec-08
TRB098	401485.33	7826795.06	328.87	54	05-Dec-08
TRB099	401483.57	7826817.85	328.84	42	05-Dec-08
TRB100	401481.84	7826841.77	328.83	39	05-Dec-08
TRB101	401432.57	7826839.09	328.64	39	05-Dec-08
TRB102	401433.24	7826814.04	328.76	60	06-Dec-08
TRB103	401434.52	7826788.79	328.88	45	06-Dec-08
TRB104	401435.77	7826764.20	329.13	39	06-Dec-08
TRB105	401437.05	7826738.07	329.35	42	06-Dec-08
TRB106	401438.69	7826714.02	329.36	39	06-Dec-08
TRB107	401439.96	7826689.33	329.43	39	06-Dec-08
TRB108	401441.13	7826663.80	329.71	45	07-Dec-08
TRB109	401388.21	7826661.16	329.79	39	07-Dec-08
TRB110	401389.75	7826686.11	329.76	42	07-Dec-08
TRB111	401386.71	7826711.22	329.51	39	07-Dec-08
TRB112	401386.08	7826736.89	329.39	52	07-Dec-08
TRB113	401384.83	7826761.39	329.20	45	08-Dec-08
TRB114	401383.66	7826786.04	329.04	48	08-Dec-08
TRB115	401382.53	7826811.20	328.81	39	08-Dec-08
TRB116	401380.93	7826836.48	328.56	39	08-Dec-08
TRB117	401332.11	7826833.68	328.67	48	08-Dec-08
TRB118	401333.40	7826808.31	328.82	45	08-Dec-08
TRB119	401334.96	7826783.19	329.08	48	09-Dec-08
TRB120	401336.27	7826758.13	329.31	60	09-Dec-08
TRB121	401337.33	7826733.35	329.39	39	09-Dec-08
TRB122	401339.26	7826708.98	329.45	42	09-Dec-08
TRB123	401340.46	7826683.62	329.59	39	09-Dec-08

TRB124	401341.67	7826658.98	329.82	39	10-Dec-08
TRB125	401290.72	7826657.14	329.66	39	10-Dec-08
TRB126	401289.96	7826680.61	329.64	39	10-Dec-08
TRB127	401289.71	7826706.75	329.30	39	10-Dec-08
TRB128	401287.25	7826730.97	329.34	39	10-Dec-08
TRB129	401284.48	7826755.33	329.30	42	12-Dec-08
TRB130	401283.40	7826780.73	329.06	45	12-Dec-08
TRB131	401281.88	7826805.81	328.88	42	12-Dec-08
TRB132	401280.02	7826830.65	328.63	39	12-Dec-08
TRB133	401235.50	7826778.47	328.92	39	13-Dec-08
TRB134	401236.15	7826752.80	329.03	57	14-Dec-08
TRB135	401237.17	7826727.97	329.18	51	14-Dec-08
TRB136	401239.43	7826703.05	329.22	39	14-Dec-08
TRB137	401240.46	7826671.54	329.61	42	14-Dec-08
TRB138	401370.40	7826341.70	331.71	42	14-Dec-08
TRB139	401371.58	7826314.82	331.87	39	15-Dec-08
TRB140	401373.79	7826266.55	331.61	39	15-Dec-08
TRB141	401420.32	7826344.80	331.54	42	15-Dec-08
TRB142	401470.08	7826346.79	331.16	42	15-Dec-08
TRB143	401471.45	7826321.29	331.13	39	16-Dec-08
TRB144	401472.46	7826296.66	331.09	39	16-Dec-08
TRB145	401473.70	7826271.62	330.99	48	16-Dec-08
TRB146	401474.63	7826247.27	331.01	42	16-Dec-08
TRB147	401475.53	7826222.69	330.68	42	16-Dec-08
TRB148	401425.92	7826219.82	330.89	48	16-Dec-08
TRB149	401425.98	7826244.32	331.13	39	16-Dec-08
TRB150	401423.03	7826269.61	331.40	48	17-Dec-08
TRB151	401421.79	7826295.03	331.64	39	17-Dec-08
TRB152	401421.59	7826318.96	331.61	39	17-Dec-08

TRB153	401372.38	7826293.03	331.89	39	17-Dec-08
TRB154	401374.88	7826240.86	331.27	57	17-Dec-08
TRB155	401376.61	7826221.45	330.93	45	17-Dec-08
TRB156	401525.71	7826225.29	330.72	39	17-Dec-08
TRB157	401524.80	7826249.73	330.78	48	18-Dec-08
TRB158	401523.60	7826274.65	330.86	39	18-Dec-08
TRB159	401522.18	7826299.25	330.92	39	18-Dec-08
TRB160	401521.17	7826324.58	330.89	51	06-Jan-09
TRB161	401519.36	7826349.79	330.84	42	06-Jan-09
TRB162	401466.21	7826372.95	331.11	39	07-Jan-09
TRB163	401567.61	7826377.28	330.45	39	07-Jan-09
TRB164	401570.19	7826352.62	330.48	45	07-Jan-09
TRB165	401572.06	7826327.75	330.61	39	07-Jan-09
TRB166	401571.98	7826302.39	330.68	39	07-Jan-09
TRB167	401573.62	7826277.01	330.69	39	07-Jan-09
TRB168	401575.36	7826252.46	330.67	39	07-Jan-09
TRB169	401576.02	7826227.65	330.67	42	08-Jan-09
TRB170	401626.75	7826229.83	330.40	42	08-Jan-09
TRB171	401625.21	7826254.96	330.42	39	08-Jan-09
TRB172	401624.34	7826279.31	330.46	39	08-Jan-09
TRB173	401622.25	7826305.38	330.49	39	08-Jan-09
TRB174	401622.15	7826327.46	330.50	52	08-Jan-09
TRB175	401619.50	7826354.03	330.18	42	08-Jan-09
TRB176	401669.07	7826379.26	330.08	39	09-Jan-09
TRB177	401670.02	7826357.05	330.12	39	09-Jan-09
TRB178	401670.78	7826330.77	330.24	42	09-Jan-09
TRB179	401672.53	7826307.13	330.26	39	09-Jan-09
TRB180	401675.01	7826283.14	330.20	39	09-Jan-09
TRB181	401675.70	7826258.32	330.21	45	09-Jan-09

TRB182	401722.84	7826285.13	330.05	42	09-Jan-09
TRB183	401722.17	7826310.51	330.07	39	10-Jan-09
TRB184	401720.96	7826335.25	330.10	42	10-Jan-09
TRB185	401719.41	7826360.32	330.04	42	10-Jan-09
TRB186	401768.30	7826387.96	329.96	42	10-Jan-09
TRB187	401769.30	7826362.53	329.96	39	10-Jan-09
TRB188	401770.92	7826337.84	330.00	42	10-Jan-09
TRB189	401771.72	7826313.90	330.16	39	10-Jan-09
TRB190	400449.89	7826634.80	324.96	42	11-Jan-09
TRB191	400428.30	7826614.27	324.81	57	11-Jan-09
TRB192	400405.16	7826594.23	324.57	51	11-Jan-09
TRB193	400383.54	7826573.45	324.33	57	11-Jan-09
TRB194	400417.16	7826536.76	324.48	51	12-Jan-09
TRB195	400439.57	7826557.67	324.70	54	12-Jan-09
TRB196	400462.63	7826578.83	324.80	51	12-Jan-09
TRB197	400483.40	7826596.23	325.09	57	12-Jan-09
TRB198	400495.08	7826540.34	324.88	57	13-Jan-09
TRB199	400517.13	7826560.24	325.09	51	13-Jan-09
TRB200	400471.89	7826521.08	324.70	51	13-Jan-09
TRB201	400449.92	7826501.60	324.63	51	13-Jan-09
TRB202	400356.60	7826551.48	324.28	51	14-Jan-09
TRB203	400328.04	7826590.64	324.14	51	14-Jan-09
TRB204	400350.31	7826607.66	324.33	57	14-Jan-09
TRB205	400372.72	7826628.74	324.39	51	14-Jan-09

Results from the RAB drilling program highlighted the potential for economic mineralisation, defined by the numerous anomalous results, with one significant Intercept recorded. The one significant intercept is detailed in the table below.

Hole ID	From -	Sample	Au	Bi	Cu	Fe	Te	Tl	U

	To (m)	ID's	(ppb)	(ppm)	(ppm)	(%)	(ppm)	(ppm)	(ppm)
TRB195	28 - 52	101614 - 101619	2803	5.6	30.1	4.94	0.5	<0.1	2.6
inc	32 - 36	101615	16500	16.5	60	5.49	0.9	<0.1	2.3
Inc	36 - 40	101616	205	6	22.5	8.26	0.1	<0.1	3.2

Expenditure for exploration on SEL 24980 during year 3 was $386,915.72 against a covenant of $80,000, please refer to expenditure report.

YEAR 4

Trinity Area

Data validation (assay, survey, collar) for deep drilling in the Trinity (Extension_Troika) data set was completed. RAB drilling over the prospect was also completed.

Infill gravity surveying on a 200m by 50m pattern was completed over the prospect during June. Zonge Geophysics commenced IP, AMT and CSAMT trial surveying over the Trinity 1 target which identifying coincident IP and AMT anomalism proximal to the originally identified Trinity 1 magnetic and inverse gravity models.

A tenement wide clearance for the Trinity prospect was completed by the CLC.

The first precollars were drilled between the 28th and 31st July. TNDD001 precollar was drilled to 100m and intersected magnetic gabbro from 40m to the end of hole. TNDD002 precollar was drilled to 163m and intersected magnetic gabbro from 52m with bands of quartz-feldspar porphyry (to 21m thick). Both drillholes were targeting forward mag modelling and an inversion gravity model. Several more precollars are planned for the Trin1 prospect along with deeper RC drilling.

Five RC precollars for 631m and five RC holes for 1,239m were drilled during August at the Trinity prospect. One diamond drillhole, TNDD005, was completed to a total depth of 407.9m. A second diamond hole, TNDD014 commenced in August and was completed in September.

TNRC001 (renamed TNRC008) was drilled to 334m at the Trin1 prospect, targeting the western edge of the central forward magnetic model. Gabbro and dolerite was intersected from 46m to EOH with minor granitic quartz-feldspar rock.

TNRC002 (renamed TNRC009) was drilled to 305m at the Trin1 prospect targeting a forward magnetic model. A large granitic quartz-feldspar igneous rock was intersected from 30m to EOH with minor quartz porphyry and granodiorite also recorded.

TNRC003 (renamed TNRC010) was drilled to 197m at the Trin2 prospect targeting a forward magnetic model coincident with a gravity high. Dolerite was intersected from 31m to EOH with minor quartz porphyry also recorded.

TNRC011 was drilled to 201m at the Trin13 prospect targeting a discrete magnetic high. Gabbro and dolerite plus minor granitic quartz-feldspar rock was intersected between 40m and EOH.

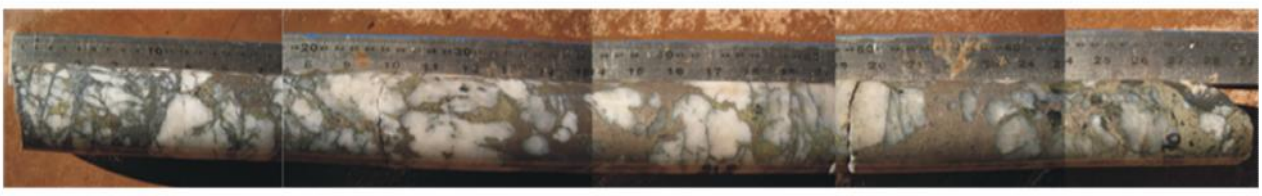
TNRC013 was drilled to 202m at the Trin8 prospect and targeted coincident forward magnetic and gravity models. Granitic quartz-feldspar rock in chloritized sediments was intersected from 48m to EOH.

All drillholes were covered by 20-30m of transported material with a clay layer developed between 30-50m above fresh rock. Base of oxidation was typically between 50-60m.

Three pre-collars (TNDD004, TNDD005, and TNDD012) were completed at the Trin1 prospect. TNDD004 was drilled to 113m and targeted the northern forward mag model. TNDD005 was drilled to 53m and targeted the dolerite/granite contact zone on the southern margin of the dolerite. TNDD012 was drilled to 155m and targeted an IP anomaly on the northern dolerite/altered granite contact. The precollars for TNDD004 and TNDD005 intersected gabbro and dolerite while the precollar for TNDD012 intersected dolerite and granitic quartz-feldspar rock.

One diamond hole, TNDD005, was completed at the Trin1 prospect in August. 355.6m of NQ diamond drilling was completed from an RC precollar for a final depth of 407.9m. The drillhole was designed to target the contact between the gabbro/dolerite and the granitic quartz-feldspar rock. Fresh gabbro/dolerite was intersected from 59m to 333m with minor granitic quartz-feldspar. Sheared chloritic dolerite was then intersected from 333m to 338.9m above a 0.8m massive quartz vein with up to 30% sulphides (estimate - 15% pyrhhotite, 10% pyrite, 5% chalcopyrite- picture below). Lithology from 343.9m to EOH was quartz-feldspar granite.

TNDD005 339.62 – 340.4m (Front)



TNDD005 339.62 – 340.4m (Rear)

Figure 2: TNDD005 Core

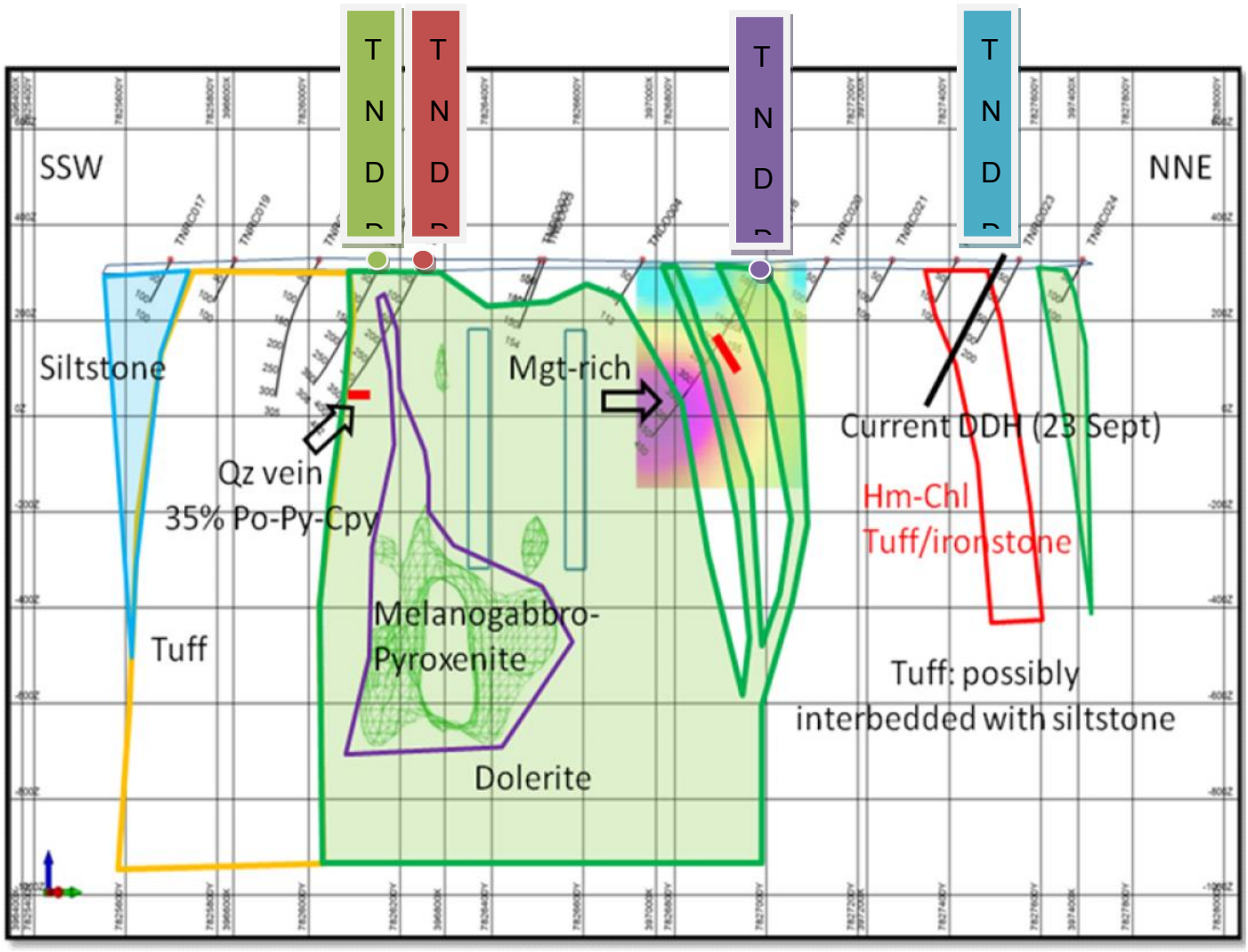


Figure 3: Trinity 1 Prospect Stratigraphic and IP section with interpreted geology

A second diamond hole, TNDD014 targeting up dip from the massive quartz vein in TNDD005.

Two further diamond pre collars, TNDD006 and TNDD007, were drilled at the Trin2 prospect targeting forward magnetic models. Both holes were RC drilled to 155m and intersected dolerite/gabbro with granitic quartz-feldspar from 40m to EOH.

A regional RAB program was drilled over prospects Trinity 12, G1, G2 and ERM150. The Trinity 12 and ERM150 programs were designed to test coincident gravity and magnetic anomalism. The G1 program was designed to test a discrete gravity anomaly south of Pinnacles North. The G2 program was designed to test a discrete gravity anomaly west of Pinnacles North.

A total of 48 holes (TNRB001 – 048) for 1,482m were drilled at Trinity 12. A total of 26 holes (TNRB049 – 074) for 980m were drilled at Trinity Regional G1. A total of 18 holes (TNRB075 – 092) for 696m were drilled at Trinity Regional G2. A total of 23 holes

(TNRB093 – 114) for 805m were drilled at ERM150. These statistics include the last hole drilled by Wild Drilling on the 10th September which is incomplete (TNRB114). The program recommenced with a new contractor, Bullion Drilling in mid-October.

Sediments, clays derived from sediments and quartz-feldspar porphyry were the main lithologies intersected in these programs. No ironstone or significant alteration was encountered.

Seven RC holes (TNRC017 and TNRC019-024) for 802m and one RC precollar, TNDD025 for 48m was drilled at the Trinity 1 prospect during September. The RC holes were designed to provide a complete geology fence across the Trinity 1 prospect.

Three RC holes (TNRC013, TNRC015 and TNRC016) for 605m were drilled at the Trinity 8 prospect as part of a 3 hole geological traverse across coincident magnetic and gravity models. TNRC013 intersected quartz-porphyry, silica-flooded altered sediment (or weakly foliated dolerite). The sediment is weakly magnetic. Textures are poorly preserved at the end of hole. TNRC015 intersected chloritic-siliceous +/- K-feldspar dolerite-gabbro. The rocks are magnetic with minor hematite and pyrite over narrow intervals. TNRC016 intersected weakly-moderately magnetic, fine-grained dolerite with intrusive bands of quartz-feldspar porphyry. Minor intervals of weak hematite dusting within the dolerite were observed.

Three diamond tails (TNDD014, TNDD018 and TNDD025) were drilled at Trinity 1 during September for 1,813.2m. A wedge was attempted on pre-collar, TNDD012, 9.7m of HQ was drilled however the hole kept collapsing and wasn't completed.

TNDD014 was designed to test up-dip of TNDD005 which intersected a massive quartz vein with pyrhhotite-chalcopyrite-pyrite mineralisation. The first 50m was drilled with a roller bit (no recovery), dolerite and gabbro was intersected from 50-150.7m, porphyritic granite from 150.7-161.75m and felsic tuff units of variable compositions to 305.2m (EOH). An interesting structural zone was intersected at 237.2-240m, situated up-dip of the target zone (quartz–sulphide vein in TNDD005). However, no quartz, massive sulphide or shearing were observed. The hole was PVC cased to EOH.

TNDD018 was designed to test an IP target and was drilled 5m to the north of TNDD012. The target zone consists of a feldspar-silica unit. The contact zone (357m) is fractured, chloritic, and weakly magnetic. A green-black fine to medium grained undifferentiated dolerite consisting of amphibole-pyrite-plagioclase and biotite plus interstitial magnetite and pyrite lies beneath. There is an obvious hydrothermal overprint texture throughout. This appears as sodic-calcic alteration, matrix filling magnetite (5-15% in places) and a finely disseminated to blebby overprint. Pyrite and chalcopyrite mineralisation up to 5% +/- pyrrhotite (<1%) are present in parts. The absence of hematite may represent a reduced part also supported with the presence of pyrrhotite and an obvious increase in magnetite.

TNDD025 was drilled to a depth of 309.9m and tested the stratigraphy at Trinity 1. The hole intersected a series of course pyroclastic bands with 5mm-3cm felsic clasts within a finer intermediate to mafic matrix interbedded with fine grained almost amorphous dark grey mafic tuff with bands and disseminated 1-3mm feldspar laths grading into course pyroclastic units and interbedded mafic intrusive(?)/tuff (?) similar to the dolerite

interpreted in TNDD018 to approximately 183m. From 183-192m, the hole intersects fine grained intermediate tuffs again with porphyry sills(?) or larger decimetre scale felsic pyroclastic bombs(?). From 192m to 207m the hole intersects a zone of moderate chlorite altered courser intermediate to mafic tuffs (peperites) and pyroclasts which is extremely fractured and broken with zones of stockwork quartz veining and brecciation. From 207-215m the unit is strongly chlorite and hematite altered (protolith pyroclastic + mafics), this is again weakly stockworked with fine quartz carbonate and wispy chlorite veins. From 215-233m the hole intersects intense chlorite +/- hematite alteration with protolith almost 100% replaced, but relic pyroclastic and doleritic textures. There are numerous faults and fault gouge fill material consisting of chlorite. Wispy chlorite stockwork veinlets occurring throughout this zone. Alteration possibly related to shearing events? From 233-242m the lithology in strong chlorite altered pepperite with blocks of felsic material, extremely broken and faulted. From 242m to current 271m lithology is interbedded mafic pepperite and extremely course pyroclastic (up to 2cm clasts) and occasionally felsic tuff flows (rhyolite). The more mafic peperites are strongly chlorite altered, with the pyroclastic units showing less strong alteration. From 271m to 273.5m a strongly chlorite altered pepperite. 273.5m to 275.7 a fine grained rhyolite tuff. 275.7m to 275.9m a chloritized shear zone and fault gouge breccias. 275.9m to 287.4m Pepperite with rare band <20cm of pyroclasts. 287.4m -287.8m Pyroclastic unit. 287.8m to 309.9 dominantly unaltered pepperite with minor bands of pyroclasts (<5% of volume). No significant alteration or structural features are present from 275.9m to EOH (309.9m).

Results for the partially completed SEL24980 RAB drilling program were received and assessed during October. At the G1 target; a discrete gravity anomaly located south of the Pinnacle North prospect, 3 RAB traverses 100m apart were completed and results received. This target generated some anomalous results in a range of Tennant Creek suite elements. The most significant being a 52ppb Au result (see figure below). It is interpreted that the Au anomaly is related to an interpreted N-S trending late stage open space infill quartz vein, similar to the “epithermal” textured vein associated with the western margin of the Pinnacle gravity anomaly. The G2 target, a similar gravity feature to the G1 anomaly was also tested with 3 X 100m spaced RAB traverses. The gravity anomaly did not produce any significant coherent anomalism, although a maximum result of 18ppb Au was return from bottom of hole within quartz porphyry lithology in the NW corner of the G2 grid. This gravity anomaly is possibly a roof pennant or metamorphosed sediment contact on the quartz porphyry intrusive.

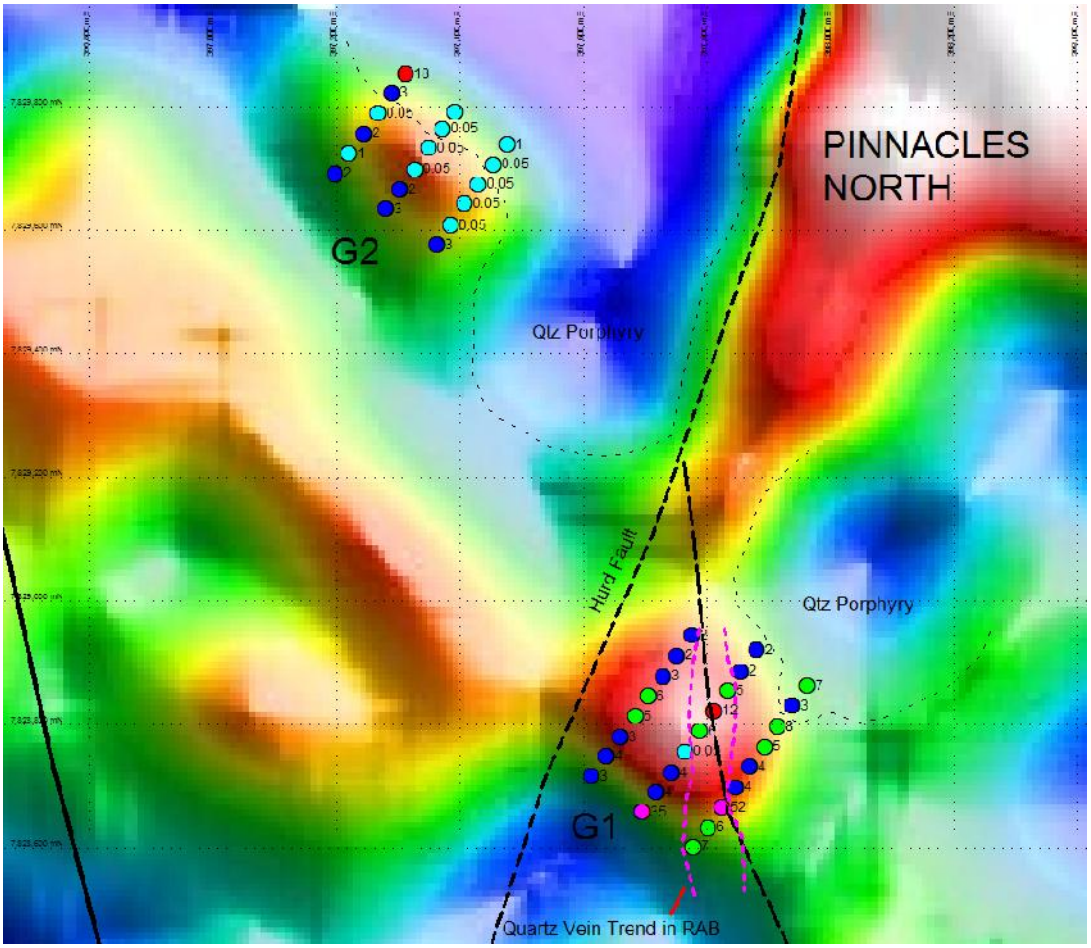


Figure 4: G1 and G2 Gravity Anomalies showing Max Au in RAB hole and interpreted geology

Drillholes TNRB001 to TNRB047 were drilled at the prospect with most terminating in clays developed above the dolerite intrusive. Drilling to the south was able to penetrate into granitic saprock and a very low level Au anomaly (5 to 37ppb) was detected apparently following the dolerite/granite margin on the southern edge. Minor Cu and Zn anomalism was also detected in the weathered clays above the dolerite intrusive. Cu values reached a maximum of 145ppm with Zn having a maximum of 163ppm. This effect was also observed at other prospects within the Trinity line.

Interpretation of the Trinity 1 section line was completed with the prospect is now defined as mylonitic granite with dolerite/gabbro intrusions. A preliminary thin section report has been received to confirm this interpretation. The intrusive complex is at least 8km long and varies from 2 to 3 km wide. It appears the granite was at least partially mylonitised prior to the dolerite intrusions and then subjected to further deformation. The dolerite displays some deformation textures and pygmatic veinlets of granite have been observed in the dolerite indicating later deformation of the dolerite. Structural measurements obtained from diamond core show that the mylonitic foliation is parallel to the strike of the dolerite on the southern contact and this has been interpreted as the major Southern Shear Zone. On the northern contacts the mylonitic foliation becomes much more complex with at least three sheared orientations and major fracture zones evident in core (TNDD025).

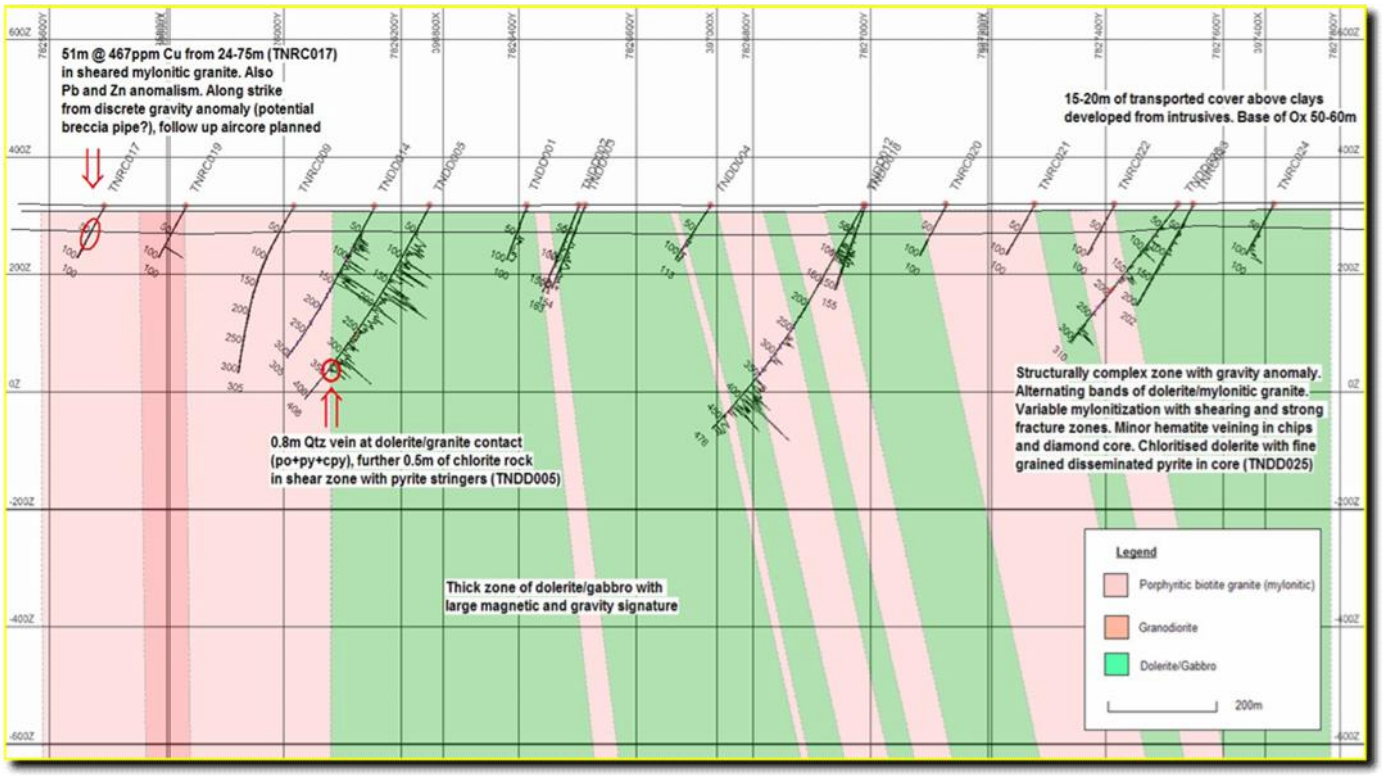


Figure 5: Trinity 1 Prospect Stratigraphic section with interpreted geology, looking WNW

Assays have been received for the RC drilling at Trinity1. Geochemical anomalism (Cu,Pb,Zn) was detected in TNRC017 within sheared mylonitic granite from 24-75m depth. Results are listed in the table below. Further very weak geochemical anomalism (Cu, Zn) was detected in the clays developed above both the dolerite and granitic rocks. Although not of economic significance these anomalous clays may provide a method of determining underlying lithology through regolith sampling. No anomalous Au was detected at Trinity1.

Anomalism geochemistry in TNRC017:

Hole ID	From	To	Cu (1ppm)	Pb (1ppm)	Zn (1ppm)
TNRC017	24	27	121	55	105
TNRC017	27	30	1591	244	410
TNRC017	30	33	1324	51	193
TNRC017	33	36	247	20	130
TNRC017	36	39	111	14	99
TNRC017	39	42	576	38	91
TNRC017	42	45	82	18	68
TNRC017	45	48	632	65	77
TNRC017	48	51	1124	83	100
TNRC017	51	54	102	11	67
TNRC017	54	57	934	101	97
TNRC017	57	60	86	12	63
TNRC017	60	63	193	18	66
TNRC017	63	66	313	16	72
TNRC017	66	69	102	7	42
TNRC017	69	72	250	5	65
TNRC017	72	75	143	6	56

Interpretation of these results suggests a structure with mineralized fluids to the east of the drillhole may be responsible for the anomalism. This structure is associated with discrete gravity highs and a major NNW offsetting cross structure.

Assay results were received for the RC drilling completed at Trinity 2, 8 and 13. These prospects have been interpreted as being part of the large scale granite/dolerite intrusive complex. Minor Cu and Zn anomalism was detected in the weathered clays above the dolerite/gabbro however nothing of economic significance was reported.

187 RAB holes (TNRB116 – 302) for a total of 7,024m and 28 Aircore drillholes (TNAC303 – 330) for a total of 1,947m were completed over the Trinity 1 prospect during November 2009. This program was aimed at defining the extent of the intrusive complex and the sediment/intrusive contact. Geochemical variation across the prospect will also be determined from the drilling. The northern contact was established between drillholes TNAC303 and TNAC304 with the former intersecting chloritic mylonite granite and the latter intersecting Warramunga sediments. The strike length of the cross-section over the prospect has now been increased to 4.2km with a second, shorter, parallel line established 700m east. A tie-in line was also drilled to link the two section. To the south of the prospect the granite becomes less mylonitised with blue quartz visible in chips (Tennant Creek Supersuite Granite). No sediments were intersected in the southern drillholes and it is inferred that the granite continues for some distance south of the completed drilling. Similar lithologies to those already encountered in diamond drilling were intersected in the remaining drillholes. Mylonitic granite, granodiorite and dolerite were commonly logged. In some drillholes highly sheared mylonitic granite with a schistose texture was evident indicating intense shearing has occurred.

A petrology report was received from Dr. R.G.Taylor for a suite of Trinity samples. The suite was divided into two lithologies – felsic (granites) and mafic (dolerite, gabbro). A lack of volcanic textures in the dolerite/gabbro implies an intrusive origin rather than extrusive as initially recorded in field observations. Rapakivi textures were noted suggesting a sudden change of equilibrium resulting in magma mixing.

Most of the rocks described had been subject to hydrothermal deformation. All of the granitic rocks displayed some modification with alteration minerals including sericite, hematite, epidote, muscovite, chlorite and TiO2 compounds. The mafic rocks are generally less altered than the granites with weak chloritisation and TiO2 development. It is thought that most of the alteration is “generic” and likely related to late stage metamorphic deformation rather than an IOCG hydrothermal system. Several samples were described however where chlorite alteration with chlorite veining is noted as being related to late-stage brittle fracturing. This observation was corroborated by a re-visit of TNDD025 where quartz-chlorite +-chalcopyrite+-galena “stockwork” veining was logged between 286-309m downhole. Chlorite+chalcopyrite were also found to occupy numerous fracture planes. Although the intervals were sub-economic the style of mineralization may represent potential targets at the Trinity prospect and could also explain the anomalous geochemistry recorded in TNRC017. The late stage, brittle, “stockwork” veining has probably developed preferentially in the mafics due to their brittle nature relative to the more ductile, sheared granites. This late brittle stage appears to have reactivated pre-existing shear zones with the implication that economic mineralization could have

developed at structural traps at Trinity, such as pressure shadows around large intrusives or at the intersection of large faults.

Troika

Four RC holes (TKRC007 – 010) were drilled at the Troika prospect between 11th to the 19th of June for a total of 1080m. These drillholes were designed to follow up on Emmerson RAB drilling completed last year. The drillholes targeted the peak magnetic highs from models developed by Emmerson consultant Geophysicist Steve Massey (Spinifex Geophysics). TKRC007 was drilled at the T7 prospect and intersected two zones of magnetic sediments. The upper zone was slightly displaced from the mag model while the lower zone was intersected 50m to the south down dip from RAB hole TRB195 (4m@17 ppm Au). A small zone of hydrothermal silica-hematite was intersected on the northern edge of the lower magnetic unit from 174-178m. TKRC008 was drilled at the T1 prospect with three zones of magnetic sediment intersected; a minor upper zone and 2 wider lower zones which corresponded well with the magnetic model. TKRC009 was drilled at the T3 prospect with a wide zone of magnetic sediments intercepted around the mag model. TKRC010 was drilled at the T2 East prospect with two zones of magnetic sediments intercepted. The lower zone was coincident with the mag model. The magnetic targets at Troika have been effectively tested however the source of the gold anomalism in the area is believed to derive from hematite rich fluids depositing along the magnetic sediment layer. Magnetic modelling has been able to determine the location of the prospective stratigraphy and it is believed that follow up gravity modelling will determine the existence of any large hematite targets at the Troika prospect.

Six RC holes (TKRC011 – 016) and four RC precollars were drilled at the Troika prospect between the 11th and 28th of July for a total of 1697m. TKRC011 was drilled to target a gravity inversion model at the T2 prospect. No encouraging lithologies were encountered however the drillhole does cover the central section of a fence of drilling across the major structures at the prospect. TKRC013 was drilled on the same fence to the south to test below anomalous haematite ironstone outcrop. A zone of dolomite-quartz alteration was developed downdip from the outcrop from 162-167m with a further metre of haematite altered rock from 167-168m. This alteration zone was immediately above a zone of chloritic-magnetite sediments from 168-177m. TKRC012 was drilled to test down dip of the anomalous Au intercept in TRB195. The drillhole encountered haematite rock between 106-107m within a zone of chlorite alteration from 94-108m. This intersection was 45m downdip of the original geochem anomaly in TRB195. TKRC014 was drilled to 155m to test downdip and along strike of geochem anomalism in TRB004 as well as along strike and up dip from chloritic-magnetite sediments reported at depth in TKRC010. A zone of weakly chloritic magnetic sediments was intersected between 120m and EOH. TKRC015 and TKRC016 were designed to test geochem anomalism at T3 as well as a large gravity anomaly at the prospect. TKRC015 was drilled to 121m and intersected a narrow zone of chlorite alteration between 70 and 73m downhole. This corresponded well with the projected downdip position of Au and Cu geochem anomalism reported in Emmerson RAB drilling. TKRC016 was drilled to 118m and intercepted haematite-magnetite rock between 96 and 97m downhole. This was immediately beneath chlorite rock recorded from 93-96m and was surrounded by a larger package of magnetic sediments from 79 to 101m. The four RC precollars, TKDD002 and TKDD004 were both drilled to 155m and both target forward mag models as well as a deeper gravity inversion model at the T2

prospect.TKDD001 and TKDD003 were drilled to target a large gravity inversion target along strike from the Au intercept in TRB195. This zone is parallel and to the south of the historic Extension mine site, now a sacred site.

Three diamond tails were completed at the Troika prospect for a total of 700.4 m of NQ core during August. All holes were drilled from 155m deep RC precollars. TKDD002 and TKDD004 were drilled to test the gravity and magnetic models at the T2 prospect. TKDD002 was drilled to 403m and intersected wide bands of magnetic sediments from 100m (in the precollar) to 250m. Minor quartz-hematite veins to 0.6m thick were intersected at 240m. The hole was drilled into the central part of the gravity inversion model however nothing to account for the modelled density contrast was encountered. TKDD004 was drilled to 397m and also intersected wide bands of magnetic sediments from 100m (in the precollar) to 220m. Minor quartz-hematite veins to 0.3m thick were intersected at 290m however no significant density contrast was encountered in the central part of the gravity inversion model. The magnetic sediments in both holes correlated well with the forward magnetic modelling in location yet were an order of magnitude smaller in measured versus modelled magnetic susceptibility.

TKDD001 was drilled at the T7 prospect directed at a stratigraphic target and gravity anomaly along strike from TRB195 (RAB hole returning 4m composite at 17.5 g/t Au). A chloritic shear zone with silica-hematite hydrothermal breccia was intersected between 202-224m downhole. Disseminated and banded hematite (approximately 5%) and disseminated - blebby pyrite to 3% was observed in the breccia zones and also in an intensely chloritic shear zone. A second zone of chloritic alteration with banded hematite was intersected between 265-282m downhole. Hematite up to 60% was developed over 1m intervals with associated fine grained disseminated pyrite to 2%. Only minor magnetite to 1% was observed. This second zone of alteration was developed adjacent to magnetite/hematite sediments further downhole.

TKDD002 was drilled to 366m depth with the final section of the hole finishing in the gravity inversion model. No density contrast was observed at this location. SG measurements have been taken from all three holes, every 5m metres over the entire hole with 1m measurements collected over zones of particular interest and provided to Steve Massey to assist in constraining the Troika inversion model.

TKDD001 drilled from the south targeting along strike of interpreted shear and earlier RAB hole which returned 4m @ 17.5 g/t Au and down dip from hematite subcrop. Intersected

@ 20m of HW & FW chlorite alteration with 5m of brecciated hematite chlorite ironstone (very little magnetite).

Assay results were received for Troika RC drill holes (TKRC011 to TKRC016). At the T2 prospect TKRC013 recorded a small kick in zinc anomalism (15m @ 200ppm) in a quartz-dolomite-hematite breccia adjacent to a moderately chloritic alteration zone.

TKRC011 had no significant intersection.TKRC014 (follow up drill test of TKRC010 and TRB004) recorded 3m @ 94 ppb Au from 69-72m in sediment with traces of hematite-magnetite rock. This was directly down dip from the 4m @ 114ppb Au detected in RAB drillhole TRB004. A wider zone of Au anomalism was detected being 30m @ 61ppb Au from 66m. Interpretation of these results implies small shears with hydrothermal fluid depositing anomalous metals into breccia zones.

TKRC015 and TKRC016 were drilled at the T3 prospect targeting anomalous Au detected in RAB drilling. 36m @ 44 ppb Au was intercepted from 33m in TKRC015 in weathered chloritic sediment. 30m @ 61 ppb Au from 66m was recorded in TKRC016 in a chlorite alteration zone above a 1m interval of hematite ironstone. The interval with the ironstone recorded 3m @ 148 ppb Au.

TKRC012 was drilled at the T7 prospect 50m down dip of TRB195 and intersected 1m of hematite-quartz ironstone with a surrounding chlorite alteration zone. The interval with the ironstone recorded 3m @ 0.274 ppm Au from 105-108m. This was directly beneath the intersection in TRB195 and indicates a vertically dipping shear zone with hematite dominant hydrothermal breccias and associated chlorite alteration zones.

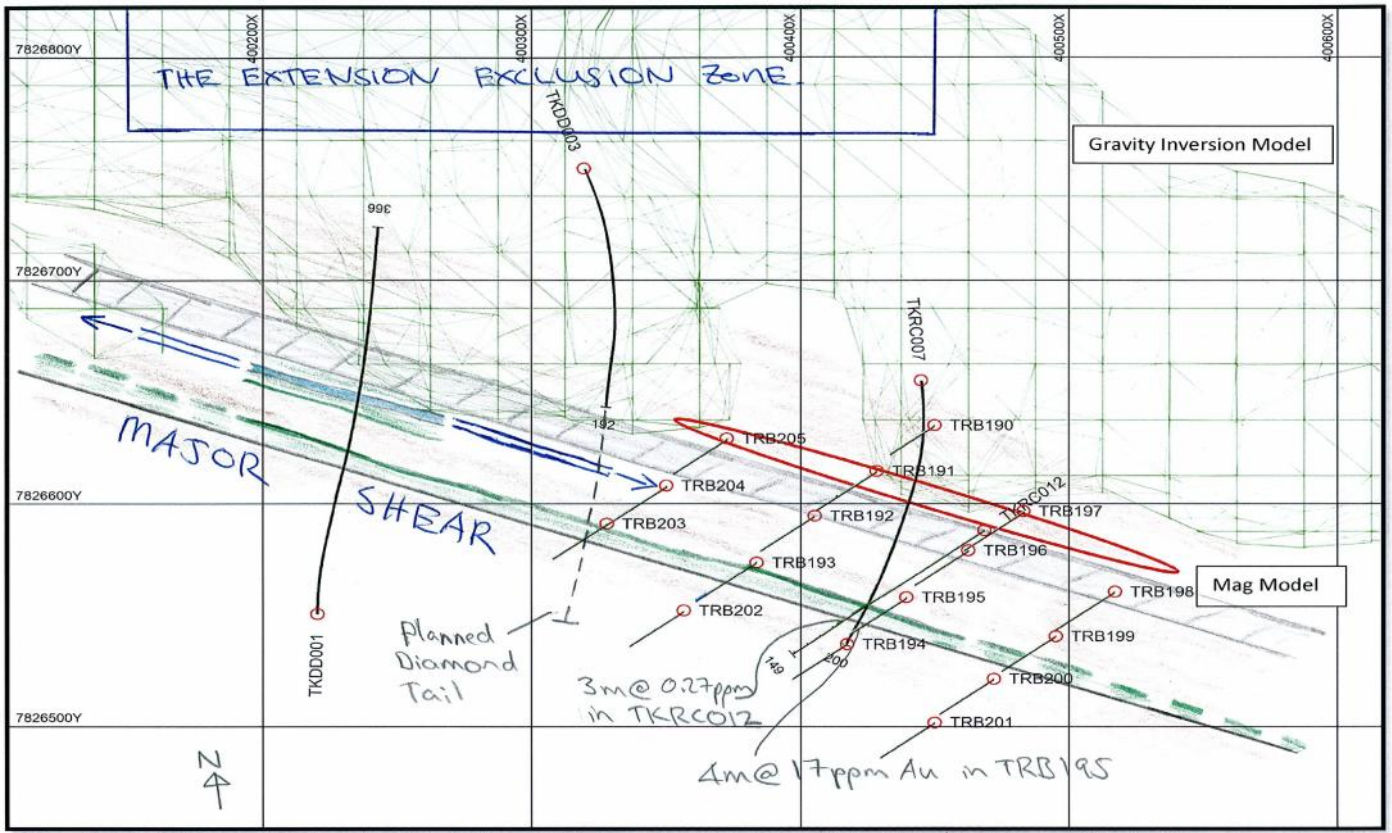


Fig 8 : Troika T7 Prospect – Plan View with Drilling & Geophysics

Legend

Magnetite / Hematite Sediments

Chlorite Alteration Zone

Unaltered Warramunga Sediments

Hematite – chlorite Rock

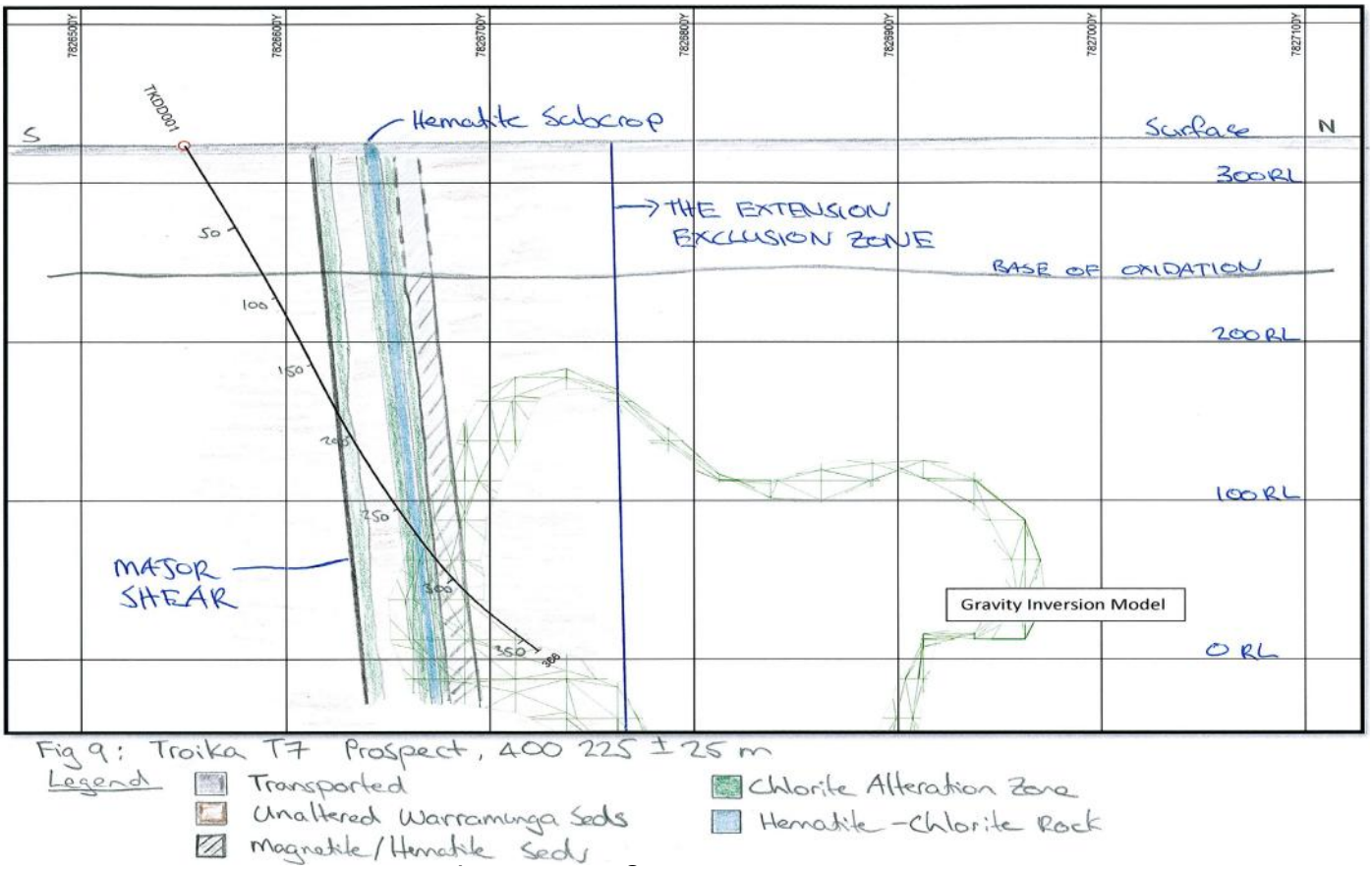


Fig 9: Troika T7 Prospect, 400 225 ± 25 m

Legend

- Transported
- Unaltered Warramunga Seds
- Magnetite/Hematite Seds
- Chlorite Alteration Zone
- Hematite-Chlorite Rock

From 242 to 288m the hole intersected altered sediments with occasional quartz-sericite shears < 10cm. From 288-301m, a zone of foliated and sheared granite/porphyry sills were intersected before entering a hematite/silica/chlorite variably foliated zone of cherty sediment. No significant zones of alteration or sulphide content were visible in the lower portion of the hole. The geology conforms to the sectional interpretation and corresponds to the chlorite/hematite zone intersected in TKRC007 to the west. TKRC007 was terminated at 310.0m after intersecting a hematite/silica/sericite/ chlorite sediment marker horizon. This hole was cased with PVC to EOH.

Assay results were received for three diamond tails completed at the Troika prospect (TKDD001, 002, 004). Although the geology of drillhole TKDD001 was encouraging, with haematite ironstone enveloped by intense chlorite alteration, no economic intersections were reported. Drillholes TKDD002 and 004 were similarly barren.

One line of NSAMT was completed over the T2 Troika target to assist with deeper targeting. Results have not been provided from Spinifex to date.

20 samples from diamond hole, TKDD001 were sent to Scott Halley for ASD analysis last month.

Pinnacles North

Rob Bills and Steve Russell visited Pinnacles North on a reconnaissance trip during July. Rob reported finding interesting colloform-crustiform quartz veins in a large N-S structure with boxwork cavities that previously contained sulphides.

199 RAB holes (PNRB111 to PNRB309) were drilled in August for 7,559m. Drilling successfully identified 800m strike of shallow oxidised hematite-magnetite ironstone at 290/110 degrees (figure below). The initial target rationale for this area was coincident gravity and magnetics with historical Cu-Au anomalism in a shallow (deepest hole = 15m) vertical RAB program conducted in 1989 by ADL.

Preliminary 4m composite results have been returned, confirming broad copper-bismuth-iron-silver-lead-zinc +/- gold anomalism associated with intersected ironstone intervals. The more significant preliminary 4m composite intersections include:

- 25m @ 0.10% Cu & 3 ppb Au, incl. 2m @ 0.24% Cu – First Hole (PNRB111),
- 40m @ 0.10% Cu, incl. 1m @ 0.74 g/t Au (PNRB147 - EOH),
- 54m @ 0.14% Cu incl. 4m @ 0.32% Cu & 20 ppb Au, (PNRB182 – EOH)
- 4m @ 0.20% Cu & 61 ppb Au, 13% Fe, 1,282 ppm Zn, (PNRB170)
- 40m @ 0.10% Cu, 1.1 g/t Ag, 16.5 ppb Au, incl. 4m @ 57 ppb Au & 4m @ 44ppb Au, 24% Fe (PNRB194)
- 12m @ 0.16% Cu, 3.03 g/t Ag, 4 ppb Au, & 34% Fe (PNRB213)
- 4m @ 0.40% Cu & 117 ppb Au,1.71 Ag & 17% Fe (PNRB253)

Pinnacles North was identified in a detailed gravity survey as part of the larger Trinity prospect survey. The prospect was considered different as the western margin of the gravity appears to be truncated by a N-S structure (Hurd Fault). Two discrete and typical bulls-eye magnetic anomalies occur within the larger gravity anomaly and it is these anomalies that were targeted by earlier explorers (ADL).

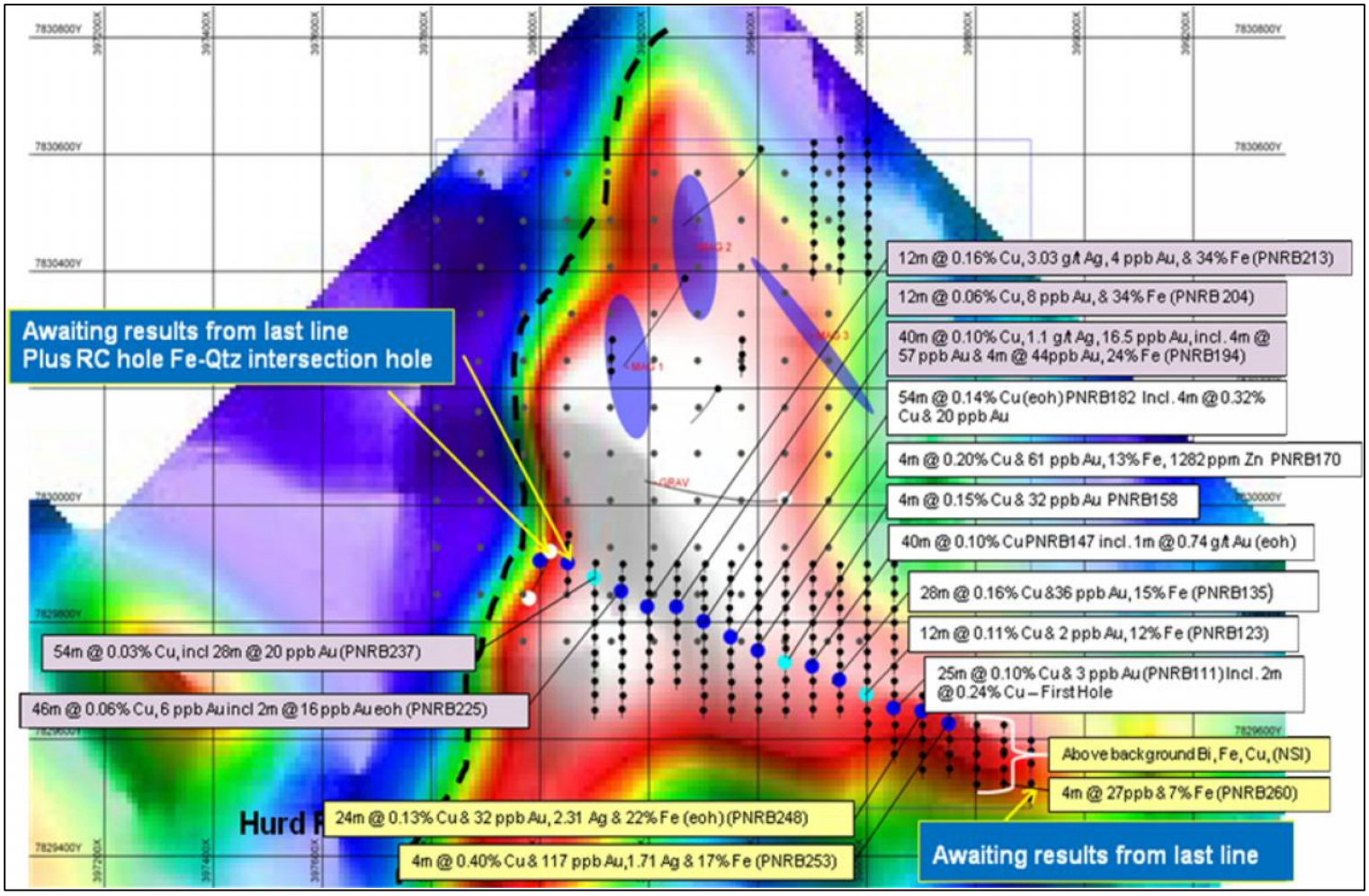
Historic RAB holes, PNRB087 intersected 3m @ 90ppb Au, 145ppm Cu from 9m, PNRB088 intersected 3m @70ppb Au, 630ppm Cu and PNRB108 intersected 3m @ 200ppb Au and 15ppm Cu from surface.

Stage 1 RAB grid (50m x 25m) drilling was designed with RAB drilling commenced on the 5th August 2009. The first hole, PNRB111 (SE corner of the grid) intersected weathered and oxidized hematite ironstone from 15-18m. 128 holes were drilled during this first stage of the program. Ironstone was intersected and mapped 600m to the west in one hole on every section. The ironstone appears to plunge to the east and may explain the deeper regolith profile in the area.

Stage 2 RAB drilling commenced on the 17th August and continued on from the first hole, PNRB111 which intersected ironstone to extend (close-off) ironstone further to the east.

32 additional angled holes were drilled to the east in total extending known ironstone to 800m of east – west strike.

Stage 3 RAB drilling closed the ironstone to the west were the ironstone intersects the Hurd Fault (quartz vein/fault).



In summary, the RAB drilling defines the extent of the ironstone to 800m, it strikes 110/290 degrees. Au and Cu results identify that the ironstone is mineralised in the regolith.

A RAB program of 31 holes was also designed and drilled to cover the NE corner of the ADL RAB grid following up weakly anomalous Au and Cu. Clays and siltstones were intersected in these holes. 6 RAB holes also followed up anomalous Au and Cu in the middle of the historic RAB program, clays and siltstones were intersected, although geology is not promising.

During August Steve Massey identified three magnetic models to the north of the above mentioned RAB drilling. Two RC holes were designed and drilled targeting the two stronger (TMI) magnetic models. PNRC001 (depth 305m) was designed to test the more

southern anomaly. PNRC002 (depth 155m) was designed to test the northern anomaly. Both holes intersected regionally metamorphosed chloritic and magnetic sediments. Both RC holes experienced high water flow causing deviation and failed to intersect material to explain the magnetic models. Due to the same reasons, the holes were not able to be cased with PVC.

One pre-collar was drilled to target the maximum density point of the Pinnacle North gravity inversion model. This hole was drilled to 155m and lifted dramatically, unfortunately it deviated too much and cannot be used as the pre collar to test this target.

3 RAB holes (PNRB310-312) for 134m were drilled in September continuing with the August program. Hole PNRB312 confirmed the presence of the ironstone on the most western side of the recent program and was abandoned at 44m due to puggy, damp clay. Another traverse was originally planned to the west; however these 4 holes could not be drilled due to massive quartz causing difficult drilling conditions.

The final 4m composite aqua regia assay results have been returned showing broad copper-bismuth-iron-silver-lead-zinc +/- gold anomalism associated with intersected ironstone intervals.

Additional significant 4m composite intersections from September include:

- 5m @ 54ppb Au, 186ppm Cu and 10.5% Fe (PNRB312)
- 44m @ 23ppb Au, 0.11% Cu from 16-60m (PNRB135) including 8m @ 60ppb Au and 0.25% Cu from 36-44m
- 8m @ 32ppb Au, 0.10% Cu from 12-20m (PNRB158) including 4m @ 42ppb Au from 16-20m

Assays were returned for the RAB program of 31 holes (PNRB277-PNRB307) drilled to cover the NE corner of the ADL RAB grid following up weakly anomalous Au and Cu. Clays and siltstones were intersected in these holes. Despite the absence of ironstone, anomalous Au, Cu and Bi were encountered. The more significant 4m composite intersections include:

- 17m @ 276ppm Bi from 16-33m (PNRB285) including 4m @ 1204ppm Bi from 16-20m.
- 12m @ 25ppm Bi and 92ppm Cu from 4-16m (PNRB295)
- 29m @ 21ppb Au, 16ppm Bi and 214ppm Cu from 4-33m (PNRB304) including 4m @ 93ppb Au, 23ppm Bi and 398ppm Cu from 28-32m.

These three holes (PNRB285, PNRB295 and PNRB304) show anomalism which has a very similar trend to the southern ironstone intersections, striking approximately 115/295 degrees. This will be followed up with further RAB drilling to the west and east.

The 6 RAB holes (PNRB271-276) which also followed up anomalous Au and Cu near the centre of the historic RAB program intersected clays and siltstones. The assay results didn't return any significant intersections.

Eleven RC holes were drilled for 1,587m (PNRC006 - PNRC008, PNRC010 - PNRC017) testing the ironstone at depth. The holes intersected ironstone and associated alteration on sections 398000, 398050, 398100, 398200, 398300, 398400, 398500, 398600 & 398700mE. The two holes drilled on sections 398800 and 398900mE failed to intersect ironstone on the predicted plunge. One RC hole is planned for 150m to test the position of the ironstone on the eastern side. It is likely the ironstone changes position due to the large intrusive to the south.

Assays were also returned from PNRC001 and PNRC002. These holes targeted magnetic models to the north of the ironstone. PNRC002 returned 3m @ 16 ppb Au from 150m within weakly magnetic siltstone, however all other elements were not anomalous at this depth. Assays were returned from pre-collar PNDD003 with no significant intersections. This hole was designed to test the maximum density point of the Pinnacle North gravity inversion model. However, it was abandoned at 155m due to dramatic lift. During September, pre-collars, PNDD004 and PNDD005 were drilled in an attempt to intersect this model again; however both holes swung against rotation and were abandoned at 82m and 78m respectively.

Due to difficulties with drilling RC holes to the west in this area, a diamond hole, PNDD009 was drilled to test the maximum density point of the Pinnacle North gravity inversion model. This hole was rotary mud drilled to 35.6m, HQ to 89.6m and NQ2 to 439.0m. It failed to intersect an explanation for the gravity model. Quartz-chlorite +/- chalcopyrite, pyrite, and hematite were intersected at 268-269m, 348m and 428-429m. Chalcopyrite fracture fill and stringers were intersected from 269-276.4m. These veins and associated mineralisation were selectively sampled.

Results were returned during October for the RC program testing the ironstone at depth drilled in September this year. Significant assays are reported below;

PNRC006 –
3m @ 518ppm Zn from 69m
2m @ 80ppm Pb from 123m (EOH)

PNRC007 –
12m @ 56.8ppb Au from 117m, incl. 3m @ 79ppb Au from 117m.
3m @ 1.3g/t Ag, 37.5ppm Bi and 191ppm Pb from 114m.
85ppm Pb from 129m
18m @ 0.10% Zn from 114m. 3m @ 551ppm Zn from 144m.
3m @ 0.34% Cu from 138m and 3m @ 0.24% Cu from 156m.

PNRC008 –
3m @ 69ppb Au and 541ppm Zn from 135m.
9m @ 0.52g/t Ag from 105m.
6m @ 14.4ppm Bi from 72m.
39m @ 144ppm Pb from 90m. 3m @ 94ppb Pb from 75m.
42m @ 0.09% Zn, incl. 3m @ 0.31% Zn from 72m.

PNRC010 –
3m @ 44ppb Au from 78m.
9m @ 1.3g/t Ag from 87m incl. 3m @ 1.96g/t Ag from 90m.
3m @ 0.28% Cu from 93m.
6m @ 12.8% Fe from 87m.
15m @ 0.09% Zn from 87m.

PNRC011 –
9m @ 92.7 ppb Au from 75m incl. 3m @ 142ppb Au from 81m.
9m @ 2.1g/t Ag from 111m incl. 3m @ 3.6g/t Ag from 114m.
3m @ 19.3ppm Bi and 519ppm Zn from 99m.
3m @ 0.22% Cu from 114m
6m @ 113ppm Pb from 114m and 3m @ 566ppm Zn from 120m.

PNRC012 –
21m @ 40.9ppb Au from 90m, incl. 3m @ 111ppb Au from 90m.
9m @ 108ppm Pb and @ 2.1g/t Ag from 81m, incl. 3m @ 2.9g/t Ag from 84m.
15m @ 90.7ppm Bi from 78m, incl. 3m @ 229.6 ppm Bi from 84m.
6m @ 0.30% Cu from 84m. 18m @ 13.8% Fe from 75m.
12m @ 9ppm Mo from 72m, incl. 3m @ 18.2ppm Mo from 75m.
15m @ 0.13% Zn from 84m, incl. 3m @ 0.23% Zn from 93m.

PNRC014 –
6m @ 61.5ppb Au and 500.5ppm Zn from 96m

PNRC015 –
3m @ 61ppb Au, 2.3g/t Ag & 20.7ppm Mo from 93m.
9m @ 12.7% Fe and 0.30% Cu from 90m incl. 3m @ 0.44% Cu from 93m.
3m @ 11.4 ppm Bi from 39m & 3m @ 51.2 ppm Bi from 72m.
6m @ 96.5ppm Pb from 84m.
21m @ 0.10% Zn from 84m incl. 3m @ 0.25% Zn from 99m.

PNRC016 –
3m @ 45ppb Au from 111m.
3m @ 0.51g/t Ag, 0.39% Cu, 122ppm Pb from 75m.
3m @ 10.6% Fe from 72m.
18m @ 0.10% Zn from 66m

PNRC017 –
27m @ 99.7ppb Au from 72m incl. 3m @ 313ppb Au from 81m.
30m @ 27.5% Fe from 66m, incl. 3m @ 41% Fe from 78m.
30m @ 23.4ppm Bi from 66m incl. 3m @ 84ppm Bi from 87m.
18m @ 2.4g/t Ag from 66m incl. 3m @ 7.5g/t Ag from 69m and 6m @ 1.2 g/t Ag from 93m.
3m @ 0.30% Cu from 66m and 18m @ 0.34% Cu from 81m incl. 3m @ 0.54% Cu from 93m.
27m @ 12.5ppm Mo from 66m.
6m @ 0.24% Pb from 66m incl. 3m @ 0.45% Pb from 66m. 9m @ 96ppm Pb from 93m.

6m @ 892ppm Zn and 21m @ 673ppm incl. 3m @ 0.14% Zn from 96m.

No significant assays were returned from PNRC013.

RC hole (PNRC022) was drilled during October for 149m to test the position of the ironstone. Unaltered sediments were intersected, thus the ironstone has been closed off to the east.

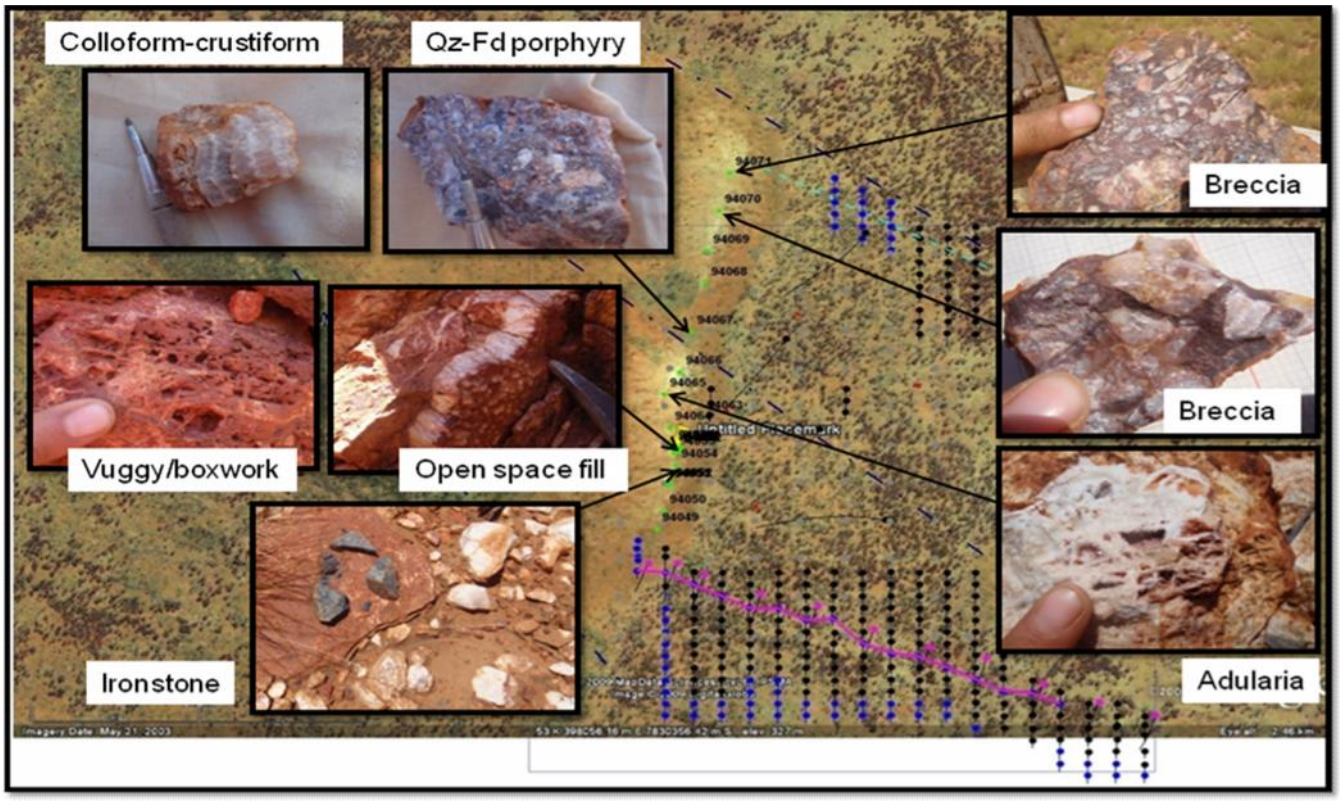
The 4 pre-collars totalled 467.2m of RC drilling and the 3 diamond tails drilled during the month totalled 427.4m of NQ2 drilling. The first diamond hole, PNDD018 intersected ironstone at 128-135m with a large zone of associated alteration between 112-185m approximately 60m beneath the ironstone intersected in RC hole, PNRC017 on section 398200mE. PNDD019 intersected strong chlorite, dolomite and talc alteration (+/- silica) 246-263m downhole and approximately 50m beneath the ironstone intersected in PNDD018 on this same section. PNDD020 intersected strong chlorite (+/- talc and silica) alteration 195-202m downhole and approximately 60m beneath the ironstone intersected in PNRC010 on section 398300mE. PNDD021 intersected ironstone and associated mineralisation ~95m beneath the ironstone intersected in PNRC015 on section 398600mE.

22 rock chips were collected from the Pinnacles North quartz outcrop including the historic costean. One ironstone rock of hematite-magnetite was located in a pile of quartz rubble south of the costean.

Textures observed in field suggest a low sulphidation epithermal system – see figure below. These include;

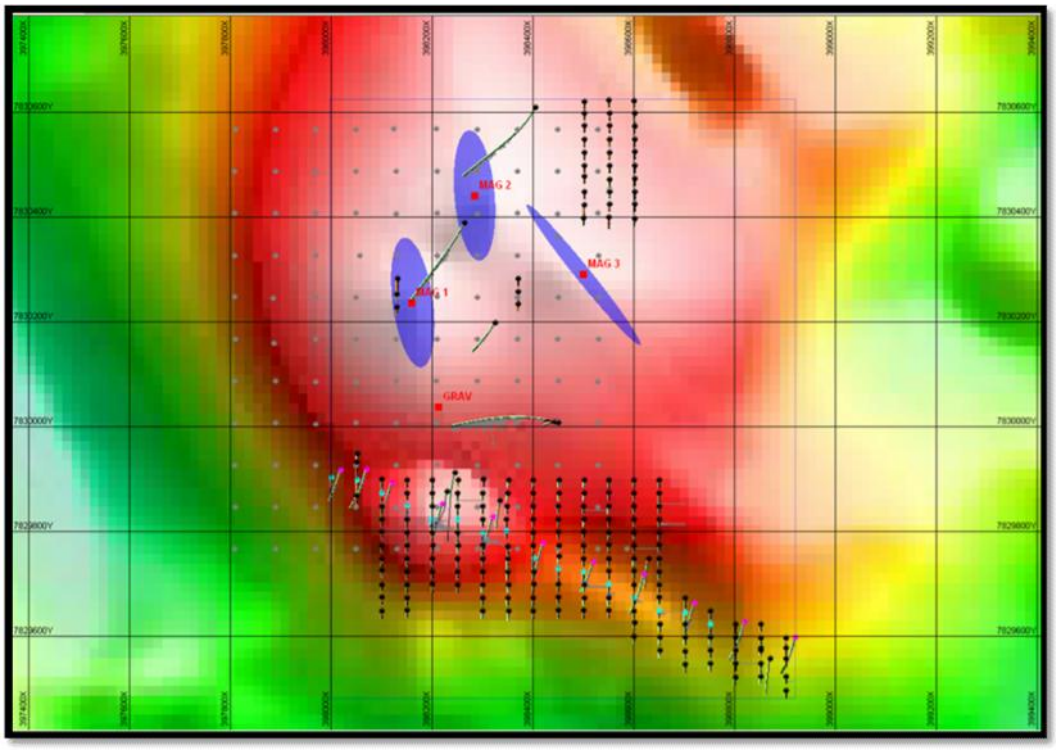
- Crustiform and colloform banding
- Multiple generations of quartz veining
- Boxwork cavities that possibly contained sulphides.
- Hydraulic/fault breccias
- Low temperature vugs
- Silicification after carbonate

- Adularia (orthoclase feldspar)

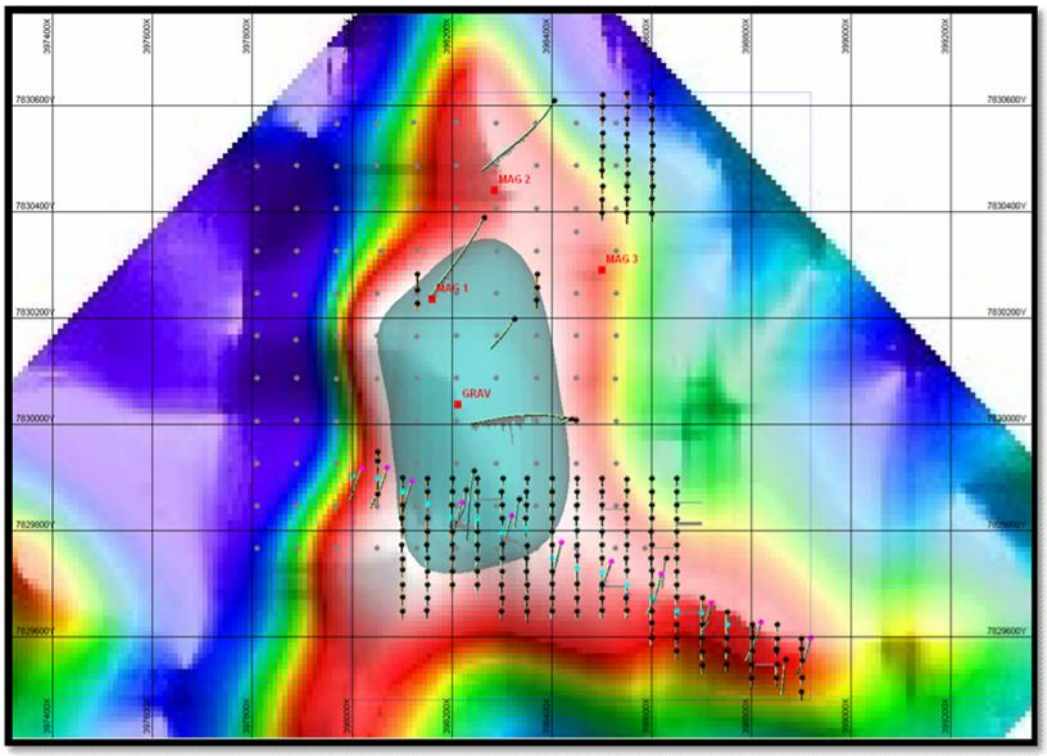


Emmerson consultant geophysicist Brett Adams has completed a report on the 2 RC holes (PNRC001, PNRC002) which tested the 2 stronger magnetic targets and the 1 DDH holes (PNDD009) which tested the maximum gravity point from the gravity inversion.

All holes intersected magnetic sediments without any significant assays returned (PNDD009 assays are pending). The magnetic models were effectively tested, thus no further work is required (see below).



The gravity model was also effectively tested (see below). However the gravity is not entirely explained by the lithologies intersected and may warrant a deeper hole.



Magnetic probe data was interpreted by Brett for RC holes PNRC010, PNRC011, PNRC012, PNRC013, PNRC014, PNRC015 and PNRC016. Unfortunately there were difficulties with running PVC down PNRC017. PNRC010 showed the strongest results and was tested by RC/DDH drilling.

Magnetic probe data for PNDD018 and PNDD019 was also sent to Brett for interpretation. Brett reported that PNDD018 has intersected a moderately magnetic unit between approximately 200m and 210m RL. The larger part of the source is interpreted to lie below the hole and towards the west.

PNDD019 has not intersected any significant magnetic sources. An off-hole anomaly has been identified between approx 120mRL and 200mRL interpreted to indicate a source located above the hole and towards the west.

PNDD020 - No significant magnetic sources have been identified in the PNDD020 DHMAG data. A weak on-hole anomaly is seen from 180mRL to 220mRL however the source models with very low mag sus (0.01SI).

PNDD021- No anomalies have been identified in the DHMAG data.

PNRC022- A very small off-hole anomaly has been identified at 235mRL however the source is too small to be of significance.

Reprocessing of geophysical data at the Pinnacles North Prospect highlighted additional gravity and magnetic anomalies requiring drill testing.

A total of 97 holes for 4,591m of RAB were drilled at Pinnacles North during November, completing the designed program. The hole designs were changed from drilling south to north following observations that the bedding (and mineralisation in the southern area) is dominantly steeply south-dipping. Au-Cu-Bi anomalism encountered in the north-east was followed up with 27 holes for 1343m (PNRB313-339). These holes were drilled at 60 degrees dip to the north (0 degrees azimuth). This anomalism has a very similar trend to the southern ironstone intersections, striking approximately 115/295o. Transported gravels cover the area to a depth of 3-10m (increased depth of cover towards the east); hematitic Warramunga sediments (dominantly siltstone) and clays were intersected. 23 holes for 1424m (PNRB387-409) were drilled over the north-western area designed to test for geochemical anomalism over three discrete gravity highs not previously tested. These were drilled at 60 degrees dip to the northeast (45 degrees azimuth) as the orientation of the anomalies is trending SE-NW. Transported gravels cover the area to a depth of 4-10m, hematitic Warramunga sediments and clays were intersected. Anomalism encountered to the south of this year's RAB program was followed up with further RAB drilling. These holes were drilled at 60 degrees dip to the north (0 degrees azimuth). 47 holes for 1824m were drilled in the southern area in total (PNRB340-386). Hematitic sediments were intersected.

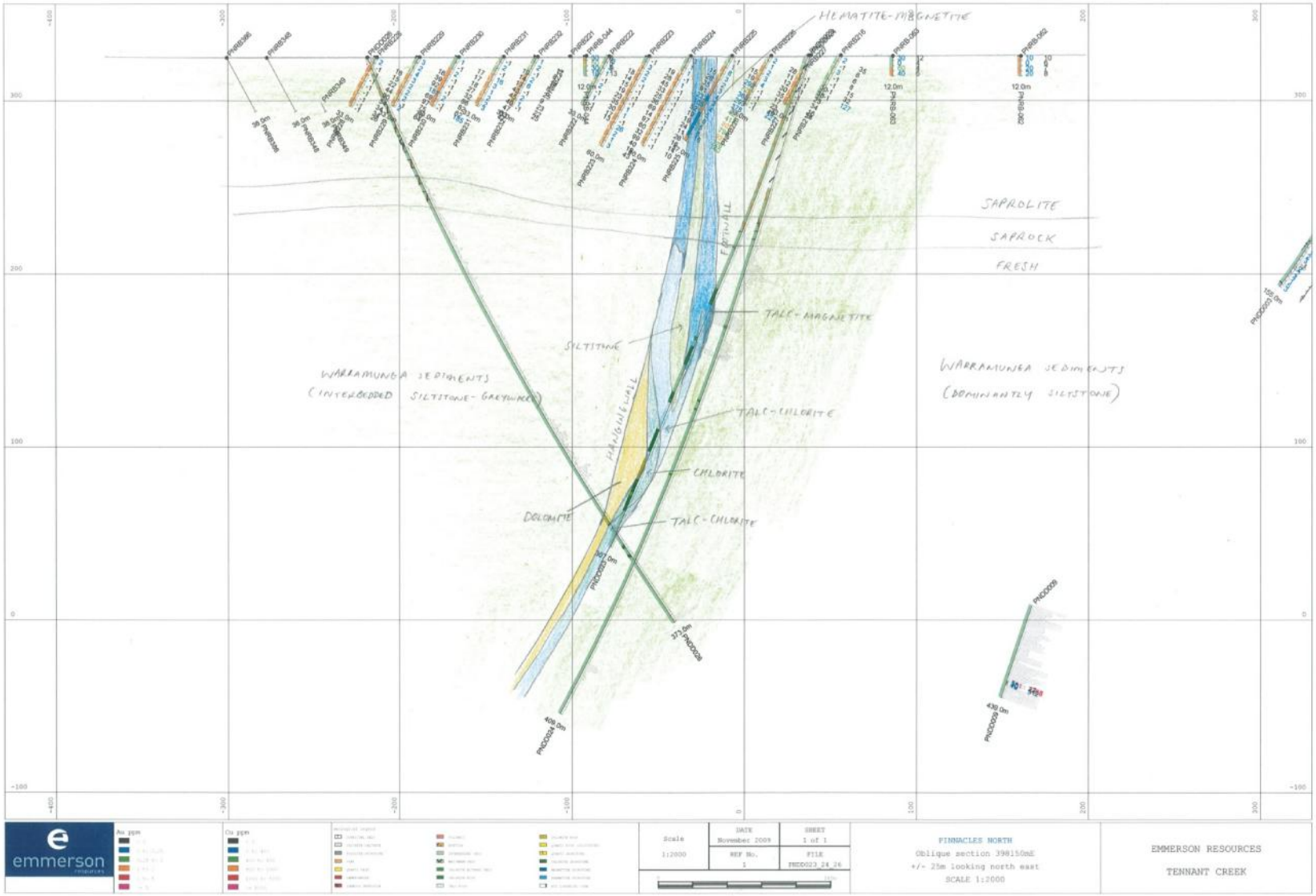
Diamond tail, PNDD021 on section 398600mE, was completed in November with 69m drilled during the month (268m EOH). PNDD021 intersected 25m of alteration and ironstone ~95m beneath the ironstone intersected in PNRC015 on section 398600mE.

PNDD023 was designed to target a down hole magnetic model on section 398150mE 50m to the west of the alteration intersected in PNDD018 and PNDD019. An RC precollar was drilled to 119m and was diamond tailed to 307m. This hole intersected visible gold at 156.91-158.07m hosted by talc-chlorite-magnetite rock in the footwall of the alteration.

The gold is also accompanied by blebby galena and chalcopyrite mineralisation. The alteration zone consists of a talc-chlorite rich footwall with magnetite mineralisation and a dolomitic hanging wall. There is a 17m section of less altered siltstone between two intensely altered zones. This hole appears to have drilled down the alteration package with a total intersection of 140m of alteration.

PNDD024 attempted to intersect mineralisation 35m down dip from PNDD023. This hole was rock-rolled to 80.6m and diamond tailed to 409m. Extensive chlorite rock and moderately-strongly chloritic siltstone was intersected. This hole appears to have 'paralleled' the mineralisation in PNDD023 and shows that the ore body dips approximately 70 degrees to the SSE (in this position).

PNRC001 (EOH 305m) was extended to a depth of 495.8m (with 84.4m drilled during the November month) and renamed PNDD001 to test a coincident gravity and magnetic model created by the re-processing of the gravity data. This hole intersected the middle of these coincident anomalies with a large package of magnetic, interbedded siltstone-greywacke which does not explain the gravity anomaly. Sedimentary breccias were encountered from 477-492m. The clasts within the breccia have been flattened and some are very magnetic. The magnetite throughout the interbedded siltstone-greywacke is most likely primary (detrital). Three thin sections have been taken from the sedimentary package and breccia to determine whether the origin of the magnetite is primary or secondary.


HEMATITE-MAGNETITE
SAPROLITE
SAPROCK
FRESH
TALC-MAGNETITE
SILTSTONE
WARRAMUNGA SEDIMENTS
(INTERBEDDED SILTSTONE-GREYWACKE)
WARRAMUNGA SEDIMENTS
(DOMINANTLY SILTSTONE)
TALC-CHLORITE
CHLORITE
DOLOMITE
TALC-CHLORITE
emmerson
Scale
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DATE
November 2009
SHEET
1 of 1
REF No.
1
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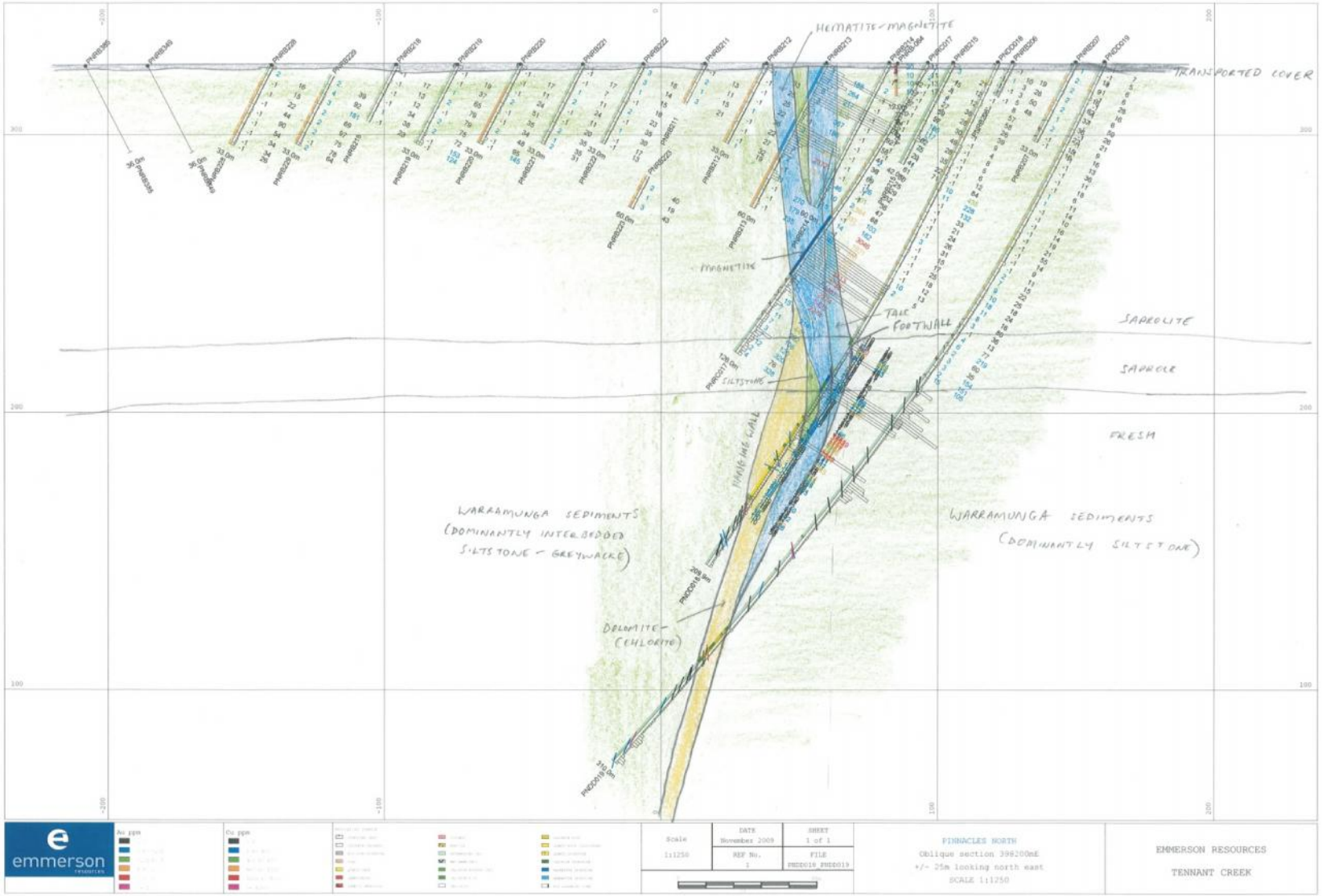
+/- 25m looking north east
SCALE 1:2000
EMMERSON RESOURCES
TENNANT CREEK


HEMATITE-MAGNETITE
TRANSPORTED COVER
MAGNETITE
TALC FOOTWALL
SILTSTONE
SAPROLITE
SAPROLE
FRESH
FINNIS SHEAR
WARRAMUNGA SEDIMENTS
(DOMINANTLY INTERBEDDED SILTSTONE - GREYWACKE)
WARRAMUNGA SEDIMENTS
(DOMINANTLY SILTSTONE)
DOLOMITE-(CHLORITE)
emmerson
Scale
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DATE
November 2009
SHEET
1 of 1
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1
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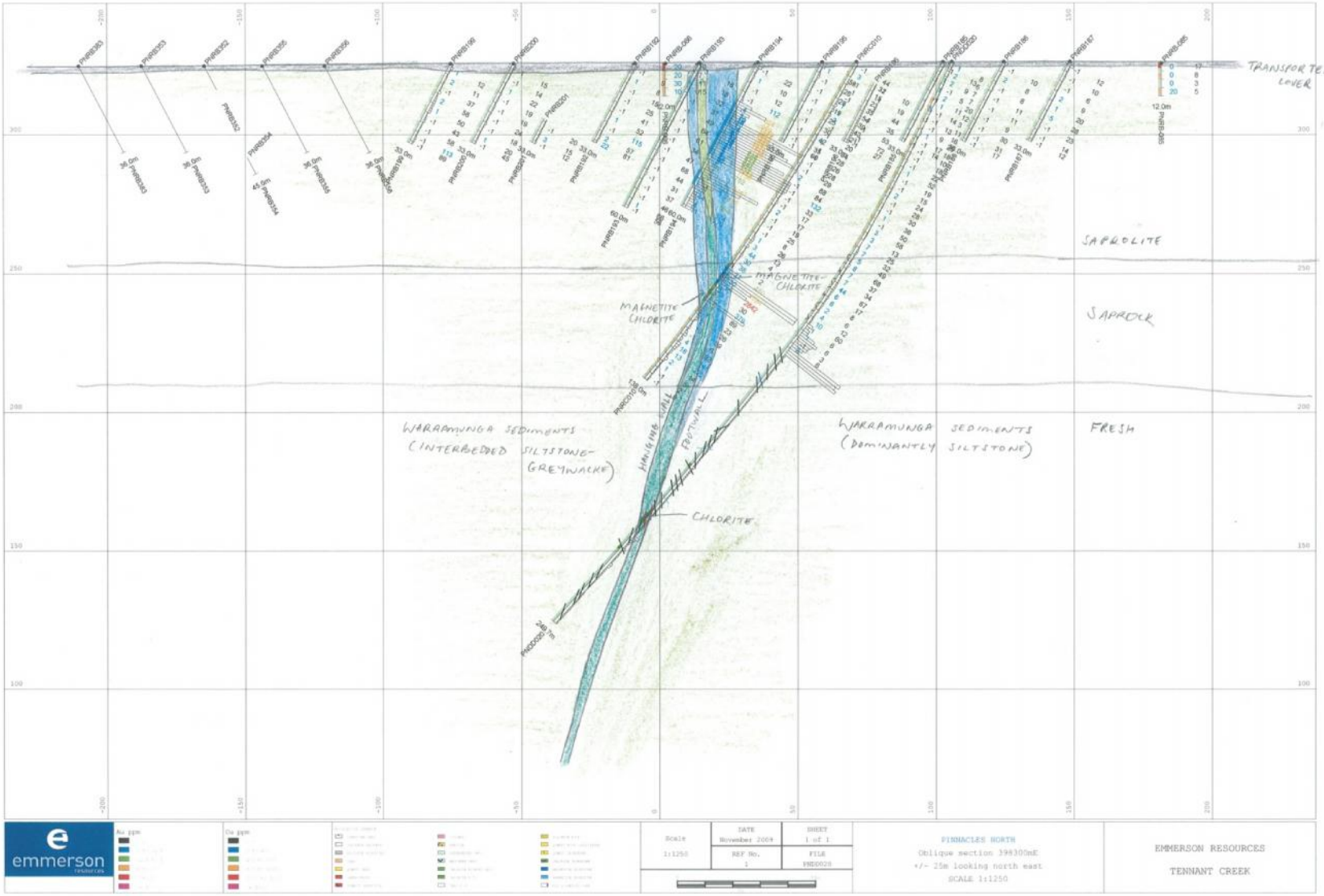
EMMERSON RESOURCES
TENNANT CREEK


TRANSPORTED COVER
SAPROLITE
SAPROCK
FRESH
MAGNETITE-CHLORITE
MAGNETITE CHLORITE
WARRAMUNGA SEDIMENTS (INTERBEDDED SILTSTONE-GREYWACKE)
WARRAMUNGA SEDIMENTS (DOMINANTLY SILTSTONE)
CHLORITE
emmerson resources
Scale 1:1250
DATE November 2004
SHEET 1 of 1
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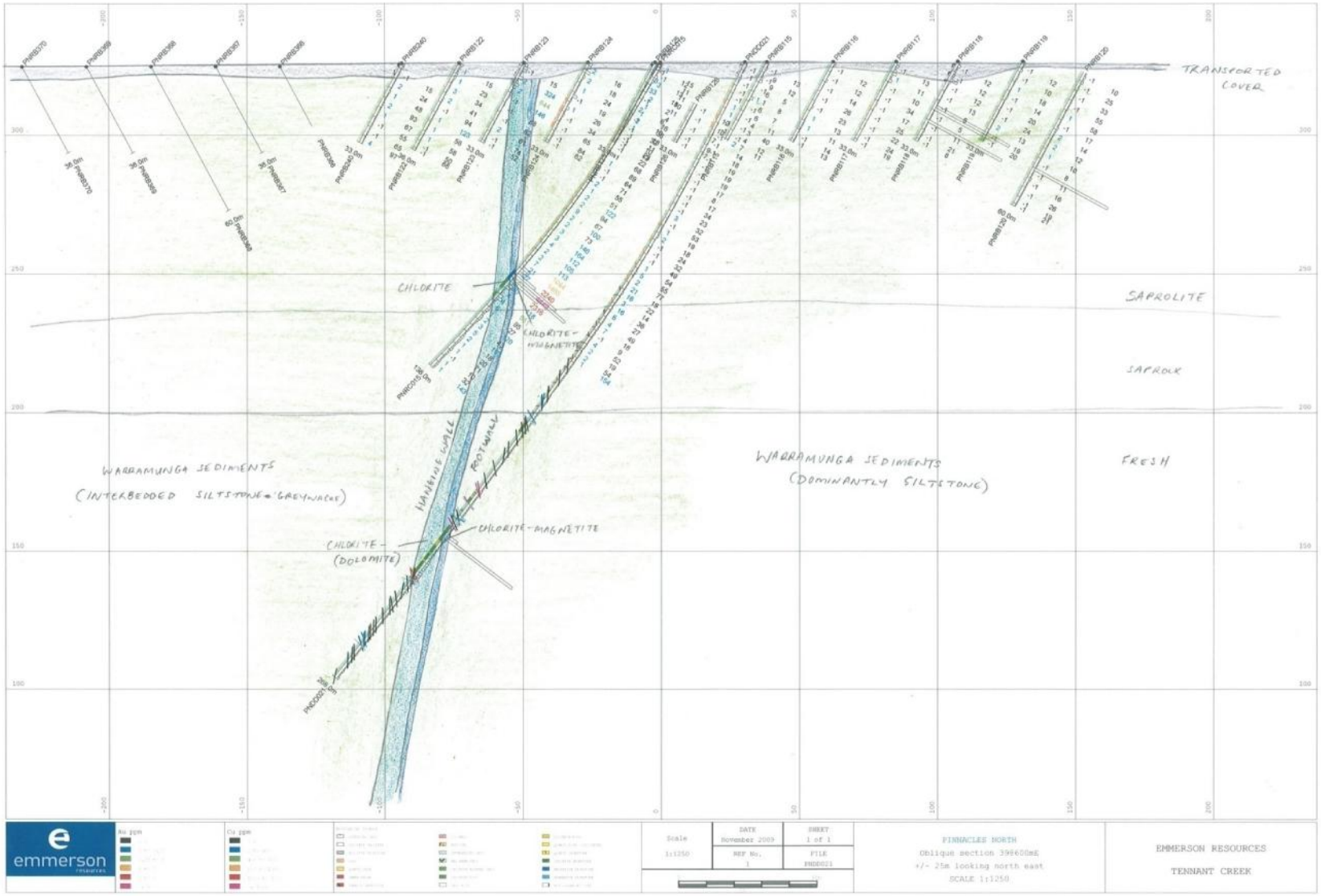
TENNANT CREEK


TRANSPORTED COVER
CHLORITE
SAPROLITE
SAPROCK
FRESH
WARRAMUNGA SEDIMENTS
(INTERBEDDED SILTSTONE & GREYWACKE)
WARRAMUNGA SEDIMENTS
(DOMINANTLY SILTSTONE)
HANGING WALL
FOOTWALL
CHLORITE-MAGNETITE
CHLORITE-
(DOLOMITE)
emmerson
PINNACLES NORTH
Oblique section 398600mE
+/- 25m looking north east
SCALE 1:1250
EMMERSON RESOURCES
TENNANT CREEK

Multi element RAB geochemistry was collected & data interrogated and compared to other deposits within the TCMF by Emmerson consultant geochemist Nigel Brand. The main findings are;

- The anomalous horizon could not be detected by geochemistry above 30m.
- There is an enrichment zone between 30-40m within the regolith which is unexplained by geology.
- 5 main geochemical anomalies (AN1, AN2, AN3, AN4 and the 'Main Au high') were identified. Of these, AN2 and AN3 have been diamond tested. The remaining have been RC tested.

Assays were returned for the 22 rock chip samples that were collected from the Pinnacles North quartz outcrop samples during October. The samples were sent to Genalysis for a multi-element exploration analysis suite (25g aqua regia Au, Cu, Bi, Pb, Zn, Mo, Fe, Te and Ag) + extra elements; Tl, Sb, W, Mn and Cr as advised by Nigel Brand to test for epithermal mineralisation. The best results were from sample 94051 with 0.11g/t Ag, 1.22ppm Bi, 36.5% Fe and 5.0ppm Sb. This sample is a piece of black-red magnetic ironstone float sitting on the quartz vein with the highest Cr value is 163ppm from 94063 which also has 18.4% Fe. This sample is a shiny, non-magnetic, hematite-rich jagged rock with sub-rounded ferruginous nodules probably after siltstone. The highest Tl value is 0.31ppm from sample 94059 comprising a crumbly, dark Fe-rich rock between quartz boulders within the costean. The highest W value is 1.49ppm from sample 94064 comprising quartz with a black-red stain. One sample has a 5-10mm vein of red and specular hematite.

No gold or anomalous Cu was present in any of the rock samples; indicating that the vein is most likely a barren, late stage event.

Further reporting from Brett Adams is detailed as below;

PNDD023 has intersected a good magnetic source at 160mRL. Peaks in the TMI above and below the intersection are interpreted to represent the upper and lower boundaries of the magnetic source.

Hole PNDD024 has not intersected any magnetic sources. A good off hole anomaly has been identified at 140mRL interpreted as being sourced from the same magnetic unit intersected by PNDD023.

PNDD018, PNDD019, PNDD020 and PNDD023 results were returned during December. Length weighted significant intercepts include;

PNDD018

- 2.35m @ 0.26g/t Au including 1m @ 0.52g/t Au from 114m hosted by chlorite rock on the footwall
- 60cm @ 1.4% Cu from 145.9m hosted by chlorite-dolomite rocks in the hanging wall.

- 9.44m @ 1.94g/t Ag from 145.28m including 60cm @ 9.67g/t Ag from 145.9m also hosted by chlorite-dolomite rocks in the hanging wall.

- PNDD019
- 0.56m @ 0.11g/t Au and 0.72% Cu from 246.79m within chlorite-dolomite rock on the footwall

- PNDD020
- 1.01m @ 0.19g/t Au from 170m on the contact between siltstone and chlorite rock (not the main footwall contact however).

- PNDD023 bonanza results were also returned;
- 2m @ 50.6g/t Au, 0.23% Cu and 0.81% Pb from 156m hosted by talc-chlorite-magnetite.
- 1m @ 0.75g/t Au, 0.57% Cu & 0.83% Pb from 178m

During March 2010, two orientation lines over the Pinnacles North ironstone along easting's 398125mE and 398475mE were conducted on 20m spacings. This consisted of 13 samples of each sampling medium (soil, lag, mag lag and termite mounds) on each line totalling 124 samples including duplicates and standards. These samples were dispatched to ACME Labs, Vancouver for 1DX - Aqua Regia Digestion for 36 elements. The XRF termite mound analysis of orientation line 1 was conducted by Dominic Sadsad on the 22nd April. 3 points per termite mound were analysed.

An IP survey over Pinnacles North was conducted during April. This survey comprised two lines for a total of 74 stations and was designed to explore for deeper anomalies. Two further lines were surveyed during April after the results from the first two lines were inconclusive. These are approximately orthogonal to the other two that have been completed already. The two new lines are oriented E-W through the maximum of the residual gravity anomaly. The southernmost of the EW lines also is located approximately 100m north of the weak-moderate but significant IP anomaly (3.4 mSec) calculated from line 2000 data.

In total, 78 RAB holes (PNRB410 – 487) for 4967m were drilled during April 2010. The first hole of the program, PNRB410 was designed to cross-drill PNRB312 (at the western end of the ironstone). PNRB410 intersected 5m of ironstone (50-55m) and talc-alteration (55-58m). Talc was intersected in two other holes in the program (PNRB427 and PNRB433). PNRB427 has talc rock from 20-27m; PNRB433 has talc rock 13-16m. These holes are located over the highest portion of the gravity high. The program will be completed in early May.

Five RC precollars, PNDD027-031, were drilled at Pinnacles North during April 2010 for a total of 745m. Diamond holes (tails) are targeting mineralisation associated with the ironstone. The holes intersected unaltered interbedded Warramunga greywacke and siltstone, as expected. These will be diamond tailed in the near future.

On the 21st April, Guy Pickerin and Kim Hurd field-checked the 'hematite-jasper rubble' as mapped on 'The Extension' 1:12,000 ADL geology sheet. The area is located approximately 600m east of the Hurd Fault quartz vein which was mapped and rock chipped last year. The rubble was located and comprised ferruginous red-purple-brown siltstone gravel and lag scree over an east-west strike of approximately 50m and a width of approximately 25m. Six rock samples were collected and sent to Genalysis for Au plus multi element analysis.

Further to the exploration detailed above, exploration activities conducted over the remainder of 2010 and 2011 in SEL 24980 were focused on the application of two new geophysical technologies and techniques, VRMI & HeliTEM, explained below.

HeliTEM

Heli-TEM is a helicopter mounted system capable of measuring the conductivity of the rocks to significant depth and utilises the world's most powerful airborne, time-domain electromagnetic system. A breakthrough during late 2010 and early 2011 has been the recognition that drill core from the mineralised portions of Tennant Creeks historic deposits is conductive up to 80times the background levels. Emmerson has just completed the first phase of 'proof of concept' drilling of HeliTEM targets in the Gecko Area within EL 23183 (now SEL 28777). Drilling has been extremely encouraging with interceptions of high grade copper and gold with intersections of minerlaisation present in many of the holes drilled, assays results for approximately eight of the drill holes are still pending. This early success gives high encouragement for the success of HeliTEM to identify mineralised systems. A second round of HeliTEM surveys will be conducted over Emmerson's most prospective areas of VRMI anomalism, this ranks the area covered by SEL 24980, now EL 28775 as a very high candidate.

VRMI

Also during the reporting period Emmerson and contract geophysical consultants, Spinifex Geophysics, further developed a processing technology, Vector Residual Magnetic Intensity (VRMI) aimed at existing magnetic data from Emmerson's Tennant Creek tenure package, figures 6 (pre-VRMI) & 7 (VRMI) represent the success of the VRMI technology. Immediate identification of highly prospective VRMI targets reprioritised Emmerson's target matrix, the Red Bluff Area became the No. 1 priority area for exploration activities. Drilling during 2010 at Red Bluff confirmed the VRMI technology with significant intercepts of thick ironstones, although assay results were mixed, the successful ironstone intercepts were evidence to support the development and use of VRMI technology.

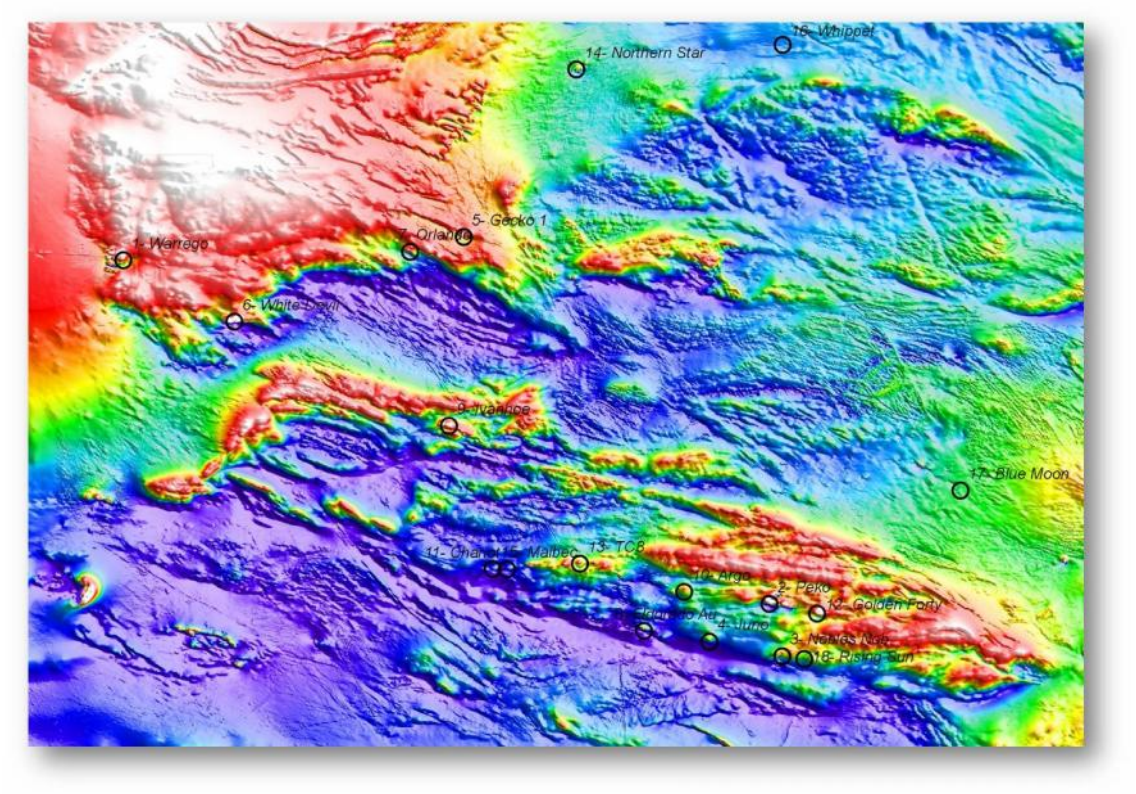


Figure 6: Conventional Magnetics

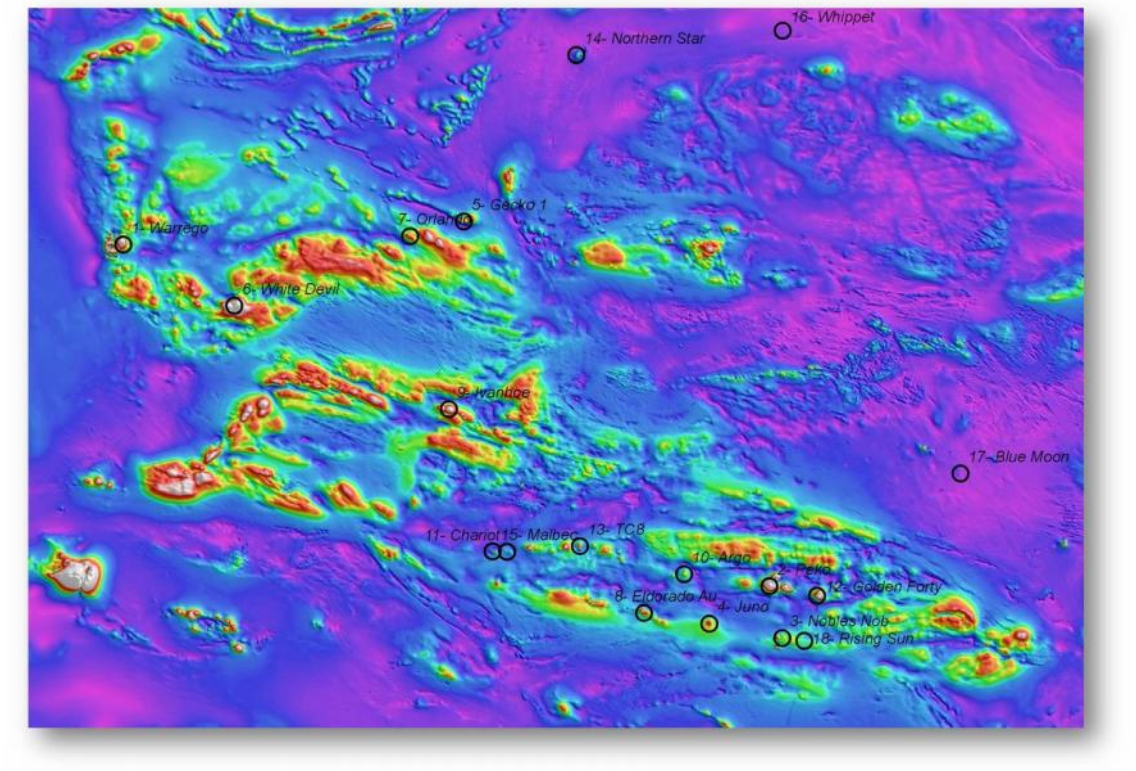


Figure 7: VRMI

7. REHABILITATION

All rehabilitation has been completed in accordance with Emmerson's Southern Project Area Mining Management Plan, Authorisation 0475-03. This has been detailed in the Authorisation submission for 2010/11, and will be reaffirmed in the 2011/12 submission.

8. CONCLUSIONS

Emmerson's considers the area covered by SEL 24980, now covered by EL 28775 to be highly prospective. During 2010 Emmerson applied the VRMI concept to the area revealing extensive VRMI anomalism. Drilling of this anomalism confirmed the presence of ironstone, although assay results were mixed. Emmerson's application of HeliTEM and the success of the 'Proof of Concept' drilling of HeliTEM anomalies in the Gecko Area has increased the potential for SEL 24980. Emmerson will continue with 'Proof of Concept' drilling for the remainder of 2011, should success continue then during 2012, Emmerson will look to conduct further HeliTEM surveys of its highest ranked prospective areas, SEL 24980 (now EL 28775) would be one of these, with the aim of identifying areas HeliTEM targets within the VRMI anomalism for drill testing.

Emmerson considers SEL 24980 to be highly prospective and is encouraged by early interpretations of the HeliTEM and VRMI data and will continue exploration over the area under the newly granted SEL 28775.

9. EXPENDITURE

Expenditure for the term of the tenure for SEL 24980 is as follows:

ITEM	YEAR 1	YEAR 2	YEAR 3	YEAR 4	YEAR 5	TOTAL
Geology	$1,400.00	$15,759.10	$103,424.78	$586,048.29	$171,049.97	
Geophysics	$0		$73,857.50	$229,866.29	$109,689.72	
Geochemistry	$0			$46,793.40	$16,522.38	
Surveying	$2					
Data Integration	$0					
Drafting	$0					
Analytical	$0		$31,906	$258,318.50	$64,782.64	
Drilling	$0		$179,372.22	$2,448,267.67	$519,592.59	
Tenure Admin	$250.00	$2,508	$570	$1,575	$1,880	
Administration and Overheads	$66.00					
Rehabilitation	$0				$25,589	
TOTAL	**$1,716.00**	**$18,267.10**	**$386,915.72**	**$3,570,869.25**	**$909,106.30**	**$4,886,874.37**