Report on Field Activities for the Paradise Well Prospect (EL27369) Area, Core Exploration Ltd., covering the period 26/5/2013 – 29/5/2013

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Principal Findings

Paradise Well Cu Prospect (EL27369)

1. A zone of Cu-oxide mineralisation (malachite) up to 10 m wide and ~166 m long in coarse grained qtz-rich gt-bt rock and fine grained gt-bt-qtz gneiss has been identified during reconnaissance mapping at the Paradise Well Prospect area (Cadney Metamorphics, Strangways Metamorphic Complex) from 481677mE 7421412mN to 481724mE 7421254mN.
2. Thirty seven (37) rock chip samples were collected from the Paradise Well Prospect area.
3. A zone of visible Cu-oxide mineralisation (malachite) up to 2 m wide and at least 20 m long in amphibolitic gneiss was briefly reconnoitred at the historical Hale River Prospect area centred on 481760mE 7418863mN .
4. Five (5) rock chip samples were collected from the Hale River Prospect area.
5. The Paradise Well Cu-anomaly occurs in coarse grained qtz-rich gt-bt rock and fine grained gt-bt-qtz gneiss in a litho-chemical transitional zone between granite intruded calc-silicate rocks and coarse grained massive gt-bt-sillim-qtz-fspr gneiss.
6. The Paradise Well Cu-anomaly is truncated to the north and south by late (post mineralisation?) shallowly NNE dipping, WNW striking thrust faults. The potential exists for the continuation and extension of the initial discovery in areas across the displacing faults.
7. Lithological associations and tectono-metamorphic setting of rocks in the Paradise Well Cu-anomaly area share characteristics of known polymetallic mineralisation in the Eastern Arunta: Utnalanama, Oonagalabi and Jonnies style deposits (Huston et al 2006). Potential litho-chemical associations (vectors to mineralisation) at Paradise Well include:
   - calc-silicate rock after marble, gt-pyx-qtz+/-cord gneiss and amphibole-rich rock (Utnalanama style);
   - calc-silicate rock after marble, anthophyllite-rich and gt-qtz rock (Oonagalabi style); and
   - qtz-bt-gt-magnetite gneiss and gt-bt-qtz gneiss (Johnnies style)[1].
8. The associations/settings suggest the prospectivity potential for greenfields discovery of polymetallic anomalism in the Paradise Well area (and the region in general) is very high.
9. The Hale River Cu-anomaly occurs in amphibolite and mafic granulite that is footwall to a shallowly NE dipping fault. Data related to this anomaly (including extent) is limited to that collected during this rapid reconnaissance. Pending the results of rock chip assays, a more detailed investigation may be warranted.
10. The Paradise Well Prospect has magnetic data coverage adequate for reconnaissance-level field activities. If the association of magnetite-bearing gneiss with mineralisation can be

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[1] Caveat: these descriptions are initial field-based determinations of lithological & mineralogical compositions/associations of granulite facies & altered rocks and therefore may not be comprehensive or accurate. Follow-up petrological investigation may be required.

verified then the acquisition of more detailed aeromagnetic data, together with detailed IP data may assist further target identification.

Introduction

At the request of Core Exploration Ltd., (CXO) a reconnaissance-level field exploration program of the Paradise Well Cu Prospect (EL27369), part of the CXO Albarta Project (Figure 1), was initiated during the period 26/5-29/5/2013. The aims of this program were to map and sample in order to determine/identify the geological setting, controls and styles of mineralisation, determine suitable geophysical methods for exploration and gather samples of mineralisation and alteration for geochemical analysis.

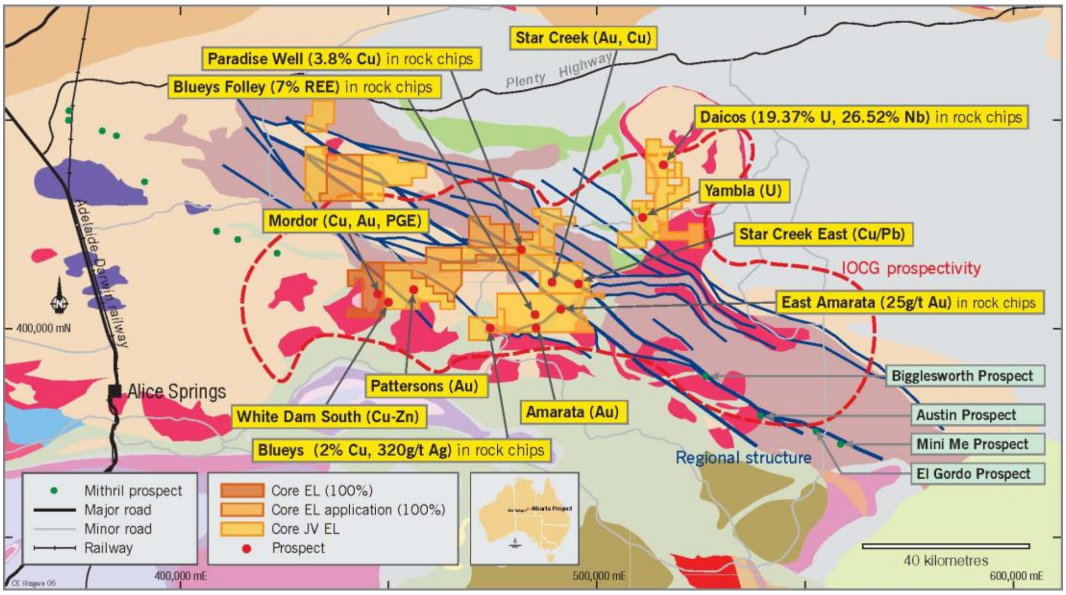

Figure 1. Location of the Paradise Well Cu-Prospect area (figure supplied by CXO).

Location references are in GDA94 MGA Zone 53 and were acquired via Garmin 655t Rhino GPS (+/- 3m). Structural measurements are 4 ^{0} E magnetic declination adjusted and reported in dip -> dip direction, plunge -> plunge direction. VirtualEarth Satellite data was used to compile the Geological Map. Geological Map line work positions are generally accurate to +/-10m. Site locations follow the form PW13LV0xx (PW=Paradise Well; 13=2013; LV=geologist; 0xx=site number). Sample identifications follow the form PWRK000xx (PW=Paradise Well; RK=rock chip; 000xx=sample number). Site field photographs are labelled according to [site location number]-P1-2-etc. Sample photographs are labelled according to [sample identification]-P1-2-etc. All photographs were taken/GPS tagged using Garmin 655t Rhino GPS (+/- 3m).

Field work has concentrated on:

- identifying mineralisation/alteration zones and potential mineralisation settings for targeted rock chip sampling,
- producing a reconnaissance-scale Geology Fact Map suitable for modern GIS application and analysis (Figure 2), and
- assessing the prospectivity of the area and making recommendations for future exploration.

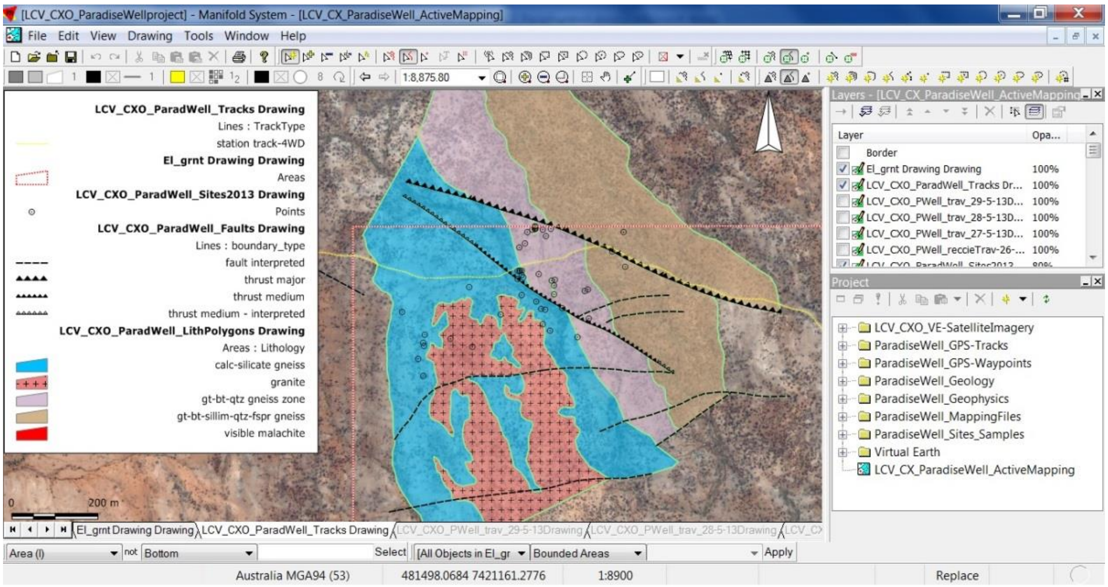

Figure 2. Current status of Geology Fact Map of the Paradise Well Cu-Prospect area (Cadney Metamorphics, Strangways Metamorphic Complex) compiled using Manifold GIS software.

Specific Notes on Mineralisation Settings

1. A zone of visible Cu-oxide mineralisation (malachite) up to 10 m wide and ~166 m long in coarse grained qtz-rich gt-bt rock and fine grained gt-bt-qtz gneiss was identified from 481677mE 7421412mN to 481724mE 7421254mN.

- CXO identified Cu-anomalism around 481662mE 7421336mN was investigated and found to be within ~100 m of an elongate zone of rocks with visible malachite.
- Rocks with visible malachite define a northern zone at least 10 m wide in steeply east dipping ($S_{1gneiss}$ 70->092^0) fine grained gt-bt-qtz gneiss and coarse grained qtz-rich gt-bt rock (pegmatite?) around 481677mE 7421412mN (Figures 3, 4).
- Six (6) rock chip samples were taken across this northern zone[2].

Left: Figure 3. Visible malachite in fine grained qtz-rich gt-bt rock (site PW13LV005; sample PWRK00030; 481679mE 7421407mN). Right: Figure 4. Visible malachite in coarse grained qtz-gt-bt rock, possible pegmatite association (PW13LV003; 481680mE 7421407mN).

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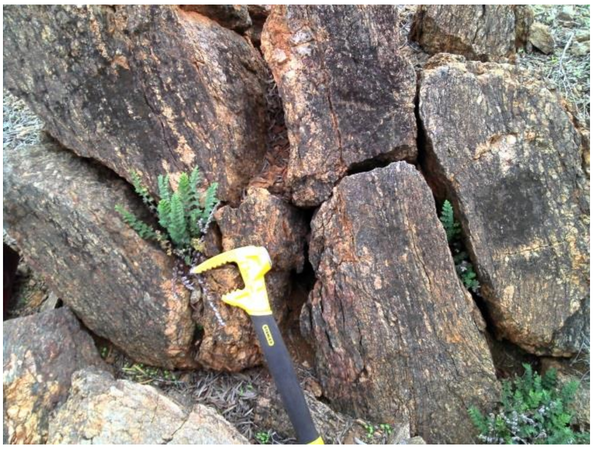
[2] Sample PWRK00003 (site PW13LV003; 481680mE 7421407mN); sample PWRK00030 (site PW13LV005; 481679mE 7421407mN); sample PWRK00031 (site PW13LV042; 481677mE 7421413mN); sample PWRK00032 (site PW13LV043; 481680mE 7421412mN); sample PWRK00033 (site PW13LV044; 481682mE 7421410mN); sample PWRK00034 (site PW13LV045; 481673mE 7421406mN).

2. The mineralised zone was traced south for approximately 166m. Visible malachite is seen in partially outcropping steeply ENE dipping ($S_{1gneiss}$ 78->078^0) quartz-veined fine grained gt-bt-qtz gneiss at site PW13LV037 (sample PWRK00027; 481718mE 7421287mN) and site PW13LV036 (sample PWRK00026; 481724mE 7421254mN; Figure 5).

- In the immediate surrounding area the mineralised fine grained gt-bt-qtz gneiss is interlayered with coarse grained gt-bt-sillim-qtz gneiss, minor calc-silicate, gt-qtz rich rock and massive amphibole rich rock (site PW13LV038; sample PWRK00028; 481725mE 7421290mN; Figure 6).


Left: Figure 5. Visible malachite in quartz-veined fine grained gt-bt-qtz gneiss (sample PWRK00026; site PW13LV036; 481724mE 7421254mN). Right: Figure 6. Gt-qtz rich rock (left field) and (right field) massive amphibole rich rock (sample PWRK00028; site PW13LV038; 481725mE 7421290mN).

3. West and underlying the mineralised zone (~15m) is granulite facies coarse grained gt-bt-sillim-qtz-fspr gneiss (gt-poor qtz-fspr leucosomes, gt-rich amph-qtz-bt-sillim melanosomes) that is interlayered with bands (~10cm wide) of finer grained gt-bt-qtz gneiss and qtz-bt-gt-magnetite (altered calc-silicate) gneiss (Figures 7, 8).




Left: Figure 7. Granulite facies coarse grained gt-bt-sillim-qtz-fspr gneiss (site PW13LV001; sample PWRK00001; 481643mE 7421364mN). Right: Figure 8. Qtz-bt-gt-magnetite gneiss (sample PWRK00002; PW13LV002; 481655mE 7421373mN). $S_{1gneiss}$ 76->084^0.

4. Further west (~60m) the mineralised zone is underlain by epidote-silica altered calc-silicate rocks, gneissic granite sills and pegmatite.

- Calc-silicate rocks[3] comprise interlayered: gt-bt-qtz+/-cordierite gneiss, gt-pyx-qtz+/-cord gneiss, gt-qtz rich rock (altered marble?) and minor amphibole-rich rock (Figures 9, 10).

Left: Figure 9. Calc-silicate domain; Gt-qtz rich rock (altered marble?) overprinted by secondary epidote alteration (site PW13LV013; sample PWRK00009; 481651mE 7421296mN). Right: Figure 10. Banded gt-bt-qtz-cord(?) gneiss with gt-pyx-qtz melanosome & epidote alteration overprint (site PW13LV018; sample PWRK00014; 481638mE 7421309mN). $S_{1gneiss}$ 28->074^0.

5. East of the mineralised zone, lithostratigraphy rapidly transitions into granulite facies coarse grained massive gt-bt-sillim-qtz-fspr gneiss, minor qtz-fspr-musc pegmatite and qtz-gt-bt/musc veins or pegmatite (Figures 11, 12). Within the transition zone several small (<20cm wide, <3m long) qtz-gt-bt/musc pegmatite or veins in fine grained gt-bt-sillim-qtz-fspr gneiss were sampled[4] due to their mineralogical similarity to malachite bearing qtz-gt-bt pegmatite/veins observed in the main Cu-anomalous zone. An anthophyllite rich rock within this transition zone was also sampled (Figure 13).

Left: Figure 11 Granulite facies coarse grained massive gt-bt-sillim-qtz-fspr gneiss with partial melt (site PW13LV008; 481888mE 7421319mN). Right: Figure 12. Qtz-gt-bt/musc vein or pegmatite in fine grained gt-bt-sillim-qtz-fspr gneiss (site PW13LV012; sample PWRK00008; 481687mE 7421301mN). $S_{1gneiss\ \&\ vein}$ 70->082^0.

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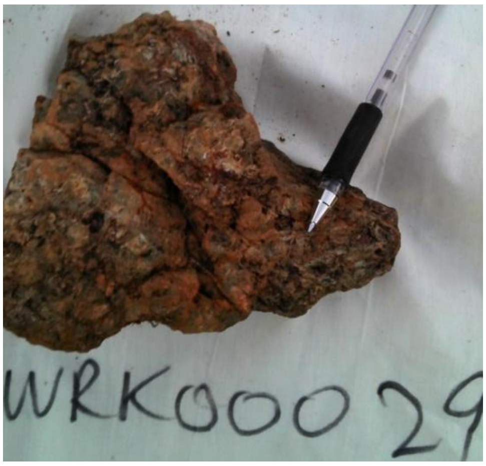
[3] Calc-silicate samples: sample PWRK00009 (site PW13LV013; 481651mE 7421296mN); sample PWRK00012 (site PW13LV016; 481644mE 7421309mN); sample PWRK00013 (site PW13LV017; 481644mE 7421310mN); sample PWRK00014 (site PR13LV018; 481638mE 7421309mN).

[4] Qtz-gt-bt/musc pegmatite/vein samples: sample PWRK00006 (site PW13LV009; 481802mE 7421267mN); sample PWRK00007 (site PW13LV010; 481795mE 7421262mN); sample PWRK00008 (site PW13LV012; 481687mE 7421301mN).

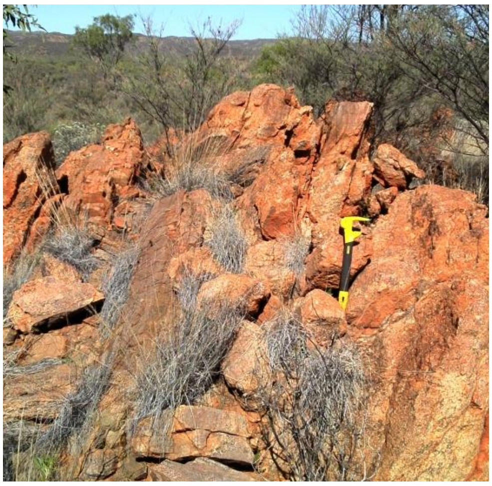
6. North and south of the main mineralised zone are WNW striking, moderately NE dipping thrust faults that truncate the mineralised zone and flanking calc-silicates, granulite gneisses and gneissic granite sills (Figure 14). The 'northern thrust' can be observed at site PW13LV007 (481858mE 7421354mN) and the 'southern thrust' can be observed at sites PW13LV019 (481638mE 7421291mN) and PW13LV039 (481742mE 7421223mN).

- While absolute displacements along these thrusts are yet to be determined, examination of regional satellite data indicate east dipping stratigraphic contacts display several 10's-to-100's meter left-lateral relative displacements. The potential therefore exists for the continuation and extension of the initial discovery in the areas across the displacing faults.



Left: Figure 13 Qtz-musc-anthophyllite-rich rock within the transitional zone (sample PWRK00029; site PW13LV041; 481805mE 7421199mN). Right: Figure 14. Major moderately NNE dipping thrust fault (S_{fault}46->032^{0}; $L_{stretch}$46->022^{0}) defined by mylonitic qtz-bt schist (sample PWRK00005; site PW13LV007; 481858mE 7421354mN).

7. South of the 'southern thrust' calc-silicate rocks (including gt-pyx-bt-qtz-cord gneiss and gt-qtz rock), gt-bt-qtz-fspr gneiss and bt-qtz gneiss are intruded by numerous granitic and pegmatite sills that collectively define a granite intrusive domain (Figure 15). Despite epidote-silica alteration of calc-silicate rocks, samples were obtained (in particular, quartz veins) to test for residual mineralisation (Figure 16).




Left: Figure 15 Gneissic calc-silicate rock intruded by granite sills (site PW13LV027; 481805mE 7421199mN). Right: Figure 16. Grey-white sugary textured vughy quartz vein in epidote altered calc-silicate (sample PWRK00023; site PW13LV033; 481419mE 7421065mN).

8. The lithological associations and tectono-metamorphic setting of rocks in the Paradise Well Cu-anomaly area share characteristics of known polymetallic mineralisation in the Eastern Arunta (Table 1: from Huston et al 2006).

Table 1. Characteristics of Palaeoproterozoic Zn-Cu-Pb(Ag-Au) deposits in the Strangways Range.

Type	Metal assemblage	Other elements	Host	Alteration assemblages	Interpreted age (Ma)	Tentative origin
Utnalanama	Mineralised marble: Zn-Pb-Cu(Ag-Au) Calc-silicate: Pb-Zn	Mineralised marble: Bi-Cd Calc-silicate: Sn, HFSEs, REEs	Marble and calc-silicate after marble.	Quartz-cordierite± orthopyroxene rock > massive amphibole± spinel±clinopyroxene rock. Both are concentrated in the footwall to mineralised marble lens.	1810-1800 (age of host); calc-silicate may be younger	VHMS
Oonagalabi	Zn-Cu-Pb(Ag-Au)	Bi	Marble → calc-silicate → massive anthophyllite schist.	Quartz-garnet rock symmetrically developed about host marble lens.	1765 (?) (age of host)	Carbonate replacement or VHMS
Johnnies	Lode rock: Cu-Pb(Zn-Ag-Au) Footwall garnetiferous zone: Au(Cu)	Lode rock: Mn-Ca-HFSE-REE Footwall garnetiferous zone: Bi±Mo	Lode rock: magnetite-diopside-amphibole± quartz rock (after marble). Footwall garnetiferous zone: Quartz-biotite-garnet±magnetite gneiss.	Quartz-biotite-garnet gneiss in structural footwall to lode rock.	1795-1770 (Pb isotope model age)	IOCG

HFSE = high field strength elements; REE = rare earth elements

- Based on the observations outlined above and using the classification of Huston et al (2006), potential litho-chemical associations (vectors to mineralisation) at Paradise Well include:
  – calc-silicate rock after marble, gt-pyx-qtz+/-cord gneiss and amphibole-rich rock (Utnalanama style);
  – calc-silicate rock after marble, anthophyllite-rich and gt-qtz rock (Oonagalabi style); and
  – qtz-bt-gt-magnetite gneiss and gt-bt-qtz gneiss (Johnnies style).
- The multiple associations/settings outlined above suggest the prospectivity potential for greenfields discovery of polymetallic anomalism in the Paradise Well area (and the region in general) is very high.

9. The historical Hale River Cu Prospect (centred on 481760mE 7418863mN) was briefly reconnoitred and a zone of visible Cu-oxide mineralisation (malachite) up to 2 m wide and at least 20 m long in amphibolitic gneiss[5], mafic granulite[6] and calc-silicate association was sampled (Figures 17, 18). The amphibolite, mafic granulite and calc-silicate rocks are footwall to a large shallowly NE dipping fault (S_{fault}24->056^0; Figure 19). Data related to this anomaly (including extent) is limited to that collected during this rapid reconnaissance. Pending the results of rock chip assays, a more detailed investigation may be warranted.

[5] Amphibolitic gneiss: sample PWRK00040 (site PW13LV052; 481760mE 7418863mN); sample PWRK00041 (site PW13LV053; 481756mE 7418866mN); sample PWRK00042 (site PW13LV054; 481752mE 7418875mN).
[6] Mafic granulite: sample PWRK00039 (site PW13LV051; 481767mE 7418859mN).

Hale River Cu Prospect. Left: Figure 17 Visible malachite in amphibolitic gneiss (sample PWRK00040; site PW13LV052; 481760mE 7418863mN). Right: Figure 18. Shallowly NE dipping fault (S_{fault}24->056^{0}) defined by qtz-fspr-musc pegmatite, quartz veining and mylonitic bt-qtz schist (sample PWRK00038; site PW13LV049; 481808mE 7418840mN).

10. A reconnaissance-level GIS based map of the Paradise Well and Hale River Prospect areas has been compiled with associated detailed sites/sample information (Manifold GIS; Figure 2).

    GoogleEarth files (Kml/Kmz files) have also been created to assist visualisation of the data & rapid assessment.

Files included with the Paradise Well Geological Fact Map:

- Surface Geology (LCV_CXO_ParadWell_LithPolygons)
- Surface Geology LithBoundary outlines (LCV_CXO_ParadWell_LithBoundaries)
- Surface Geology Faults (LCV_CXO_ParadWell_Faults)
- Sites/sample database (LCV_CXO_ParadWell_Sites2013)
- Paradise Well & Hale River Photos (LCV_CXO_PWellFieldphotos-trip1-26-29-May-2013)
- LCV traverse files (LCV_CXO_PWell_trav_xxdate)
- Track file (LCV_CXO_ParadWell_Tracks)
- Tiled detailed VirtualEarthSatellite imagery captured over Paradise Well Prospect area (+/ 10m accuracy).

Geophysical targeting

- The Paradise Well Prospect has magnetic data coverage adequate for reconnaissance-level mapping of structure and gross lithologies. If the association of magnetite-bearing gneiss with mineralisation can be verified then the acquisition of more detailed aeromagnetic data, together with detailed IP data, may assist further target identification.

Recommendations & Exploration Strategy to be considered during future field work

Pending the results of current rock chip assays and the regional soil geochemistry survey:

- Aggressively explore the litho-chemical transition zone between the granite intruded calc-silicate rock domain and the coarse grained massive gt-bt-sillim-qtz-fspr gneiss domain.
- Determine offsets along the faults that truncate the initial Paradise Well Cu-anomaly trend and aggressively pursue further mapping and rock chip sampling across the faults.
- If application for the Exploration Lease to the north of the current EL27369 is granted, aggressively explore the probable northward continuation of the Paradise Well Cu-anomaly trend & reconnoitre historical Cu-anomaly areas (example, around 484534mE 7421567mN).
- If the association of magnetite-bearing gneiss with mineralisation at Paradise Well can be verified then the acquisition of more detailed aeromagnetic data, together with detailed IP data may assist further target identification.
- Pending the results of rock chip assays, a more detailed investigation of the Hale River Cu-anomaly may be warranted.
- After aggressively exploring the Paradise Well Cu-anomaly area and developing an enhanced understanding of the mineral system and possible target settings: expand the current campaign to explore/reconnoitre more regionally over the surrounding prospective basement terrain, in particular areas of anomalism identified by the current soil geochemistry program. Adequate time/resources should be allocated towards achieving these field components, taking into account the ruggedness of the terrain, vegetation cover, limited vehicle access and large area.

References

Huston DL, Hussey K & Frater M., 2006. Zinc-copper-lead metallogeny of the Eastern Arunta. In: Lyons, P. & Huston, DL. (Eds). Evolution and metallogenesis of the North Australian Craton, Conference Abstracts. Geoscience Australia Record 2006/16, p17-19.