NT COLLABORATION PROGRAM REPORT

Arunta Resources Limited

Southern Cross Bore Project

EL 28045

Diamond Drilling to confirm geology of the Black Angus Prospect, potentially a new style of mineralisation in the Eastern Arunta Province

<table>
<thead>
<tr>
<th>Tenement</th>
<th>EL28045</th>
</tr>
</thead>
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<tr>
<td>Holder</td>
<td>Davenport Resources Limited</td>
</tr>
<tr>
<td>Manager</td>
<td>Davenport Resources Limited</td>
</tr>
<tr>
<td>Operator</td>
<td>Davenport Resources Limited (100% subsidiary of Arunta Resources Ltd)</td>
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<td>Commodity</td>
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<td>Elements Analysed</td>
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<tr>
<td>Author</td>
<td>John Young, Arvid Buskas</td>
</tr>
<tr>
<td>Approved</td>
<td>John Young, Senior Geologist</td>
</tr>
<tr>
<td>Distribution</td>
<td>Davenport Resources Limited (1)</td>
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<td>NT Geological Survey (1)</td>
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Executive Summary

Arunta Resources Limited completed a single diamond hole at Black Angus. Results suggest that mineralisation has been substantially leached from the weathered zone and that any potential economic target at Black Angus is in the primary zone of the sheared system. The Drill hole 13BARCD038 intersected the shear zone at 157.8m. Core recovery from this depth was poor and the hole collapsed below 166m and was abandoned at 168m. Elevated copper, zinc, bismuth and arsenic was noted in assays from 157.5m to 159.1m.

Unfortunately the hole was abandoned due to ground conditions, short of its final target of 200-250m.
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1.0 INTRODUCTION

Exploration Licence 28045 was transferred to Davenport Resources Limited (DRL) on the 22/07/2001. DRL is a wholly owned subsidiary of Sturt Resources Limited. All reference to work carried out by Sturt Resources Ltd. or its subsidiaries will be referenced ‘DRL’ in this report.

The licence is part of DRL’s Southern Cross Bore Project which is currently under a Joint Venture with ASX listed Transol Corporation Limited with exploration managed by DRL. The project occurs on the Lachlen 1:100,000 sheet in the Aileron Province of the Arunta.

The Johnnies Reward deposit has been classified as an intrusion related (IOCG style) of mineralisation however many styles of Cu – Au mineralisation are evident in the Arunta and these should not be ignored within the Southern Cross Bore exploration area.

Since 1982 exploration has concentrated on the evaluation of the Johnnies Reward prospect where Alcoa of Australia drilled 4 diamond holes, one of these returned the best intersection of 51m @ 1.83 g/t Au with anomalous Cu, Pb and Zn. Regionally little work has been done outside of the immediate Johnnies Reward and historical Pinnacles Copper workings 3kms west of johnnies Reward.

The Johnnies Reward prospect is hosted by a north striking, moderately east dipping sequence (Cadney Metamorphics of the Strangway Metamorphic Complex) dominated by a quartzose gneiss, the mineralisation is with a diopside-tremolite-magnetite-rock which responds well to electrical geophysical exploration methods and is distinct bullseye magnetic anomaly.

There is direct drilling evidence of a second mineralised trend characterised by high gold values in the footwall quartz – biotite - garnet rich gneiss these only have minor or accessory magnetite and that lack diopside and tremolite, this footwall mineralisation is also associated with bismuth and molybdenum. This style of mineralisation has never been recognised elsewhere in the Johnnies Reward sequence and was the focus of the recent surface sampling exercise.

Recent soil sampling over the northern end of the Johnnies Reward sequence has identified a multi-element (Au, Cu, Ag, As, and Bi) anomaly named ‘Black Angus’ in the northwest portion of the gridded area to the north of North Johnnies Reward. There appears to be little association with magnetite.

The greater than 0.01 ppm gold in soil anomaly is in excess of 300m length in a northwest southeast direction and remains open to the east. Further geochemical sampling and mapping will be completed prior to drilling. The anomaly sits within a west-north-west trending structure dominated by marble and calc-silicate rocks of the Lower Cadney Metamorphics.

The anomaly is coincident with a large magnetic low and the large scale structure appears to cut the Johnnies Reward sequence, as evidenced by the regional magnetics. This structure is interpreted to to be a spaly (thrust fault) off the regional Woolanga lineament. As noted in the newly defined ILLOGWA IOCG belt area, alteration and mineralisation is particularly focused on regional scale west to north-west structures.

This proposal is to test the contact and the structure at depth between the Northern Johnnies Reward gneissic sequence (Lower Cadney Metamorphics) and the marbles and calc silicates of the Upper Cadney Metamorphics.

Diamond drilling will provide a clearer understanding of the stratigraphy and the geological complexity in this area and able assessment of the potential for Cu–Au- Bi sulphide mineralisation in what appears to be non-magnetic rocks.
2.0 PROJECT LOCATION

Southern Cross Bore Project

The Southern Cross Bore Project is 75kms north east of Alice Springs. Access to the project is via the Stuart Highway north of Alice Springs for 45kms, then east along the Arltunga Tourist Road for 40kms until the southern part of the project area is reached. The Pinnacles Bore turnoff is another 15 km east along the Arltunga Tourist Road. The Pinnacles Bore Road extends through the centre of EL28045 and continues through to the Plenty Higway. (Figure 1).

Table 1. Tenement Details.

<table>
<thead>
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<td>Mining Interest/s:</td>
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<td>Title holder/s:</td>
<td>The title is currently held 100% by Davenport Resources Pty Ltd a wholly owned subsidiary of Sturt Resources Limited.</td>
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Figure 1: Location Map EL28045
3.0 REGIONAL GEOLOGICAL CONTEXT

The Southern Cross Bore project area lies within the south-eastern portion of the Paleo proterozoic Arunta Province which covers over 200,000 square km in Central Australia.

The stratigraphy of the Arunta province comprises relics of 2500 Ma Archaean basement overlain by >1800 Ma Paleo-proterozoic, turbiditic sequences of greywacke, quartz, sandstone, siltstone and shale along with mafic rocks and their high-grade metamorphic equivalents. The Arunta also has minor calc-silicates and meta-felsic volcanic units. During the Barramundi Orogeny, the sedimentary units were intruded by mafic rocks which have been deformed in places metamorphosed to amphibolite facies. During the closing stages of the Barramundi Orogeny (~1830 Ma) granite plutons intruded rocks of the Arunta Province.

The Arunta has been divided into three provinces, the 1860-1740 Ma Aileron Province, the 1690-1600 Warumpi Province, and the Neoproterozoic to Cambrian Irindina Province (Scrimgeour 2003).

The southeast Arunta region is assigned to the Aileron Province locally referred to as Ongeva package (1825 – 1790) of which the Strangways Metamorphic Complex (SMC) on the ALICE SPRINGS sheet is a major component. The Southern Cross Bore tenements are in the Strangways Metamorphic Complex(SMC). The Aileron Province contains meta sedimentary successions, including subordinate meta volcanic and volcanioclastic rocks. The have been affected by a number of tectonic events that have produced varying deformational and metamorphic effects, also these are associated with felsic magmatism. These events in include the 1810-1790 Ma Stafford Event, 1780-1770 Ma Yamambah Event, 1735-1690 Ma Strangways Event, 1590-1560 Ma and the 450-300 Alice Springs Orogeny.

Recent work in the southern Arunta Province has identified that there is a strong spatial association with Cu and Au mineralisation with an event of around 1755-1740 Ma showing high T low P tectono-thermal related magmatism (Jo Whelan, AGES 2013), ie regionally mafic rocks emplaced around 1770 Ma may have provided a source for metals (Yambah event). There is also evidence of a second event around 1570 Ma associated with the Chewings Orogeny and a later regional scale remobilisation event 1105 Ma. This later event is likely to have resulted in the remobilisation of metals from the basement and deposition along north- west trending structures (Jo Whelan, AGES 2013).

3.1 Known mineralisation in the Aileron Province

The Aileron province is prospective for a range of styles of Cu including:

- Intrusion related systems (IOCG) ~ Johnnies Reward, Jervois Mineral Field, Illogwa IOCG belt, Perenti
- Vein hosted ~ Arthur Popes, Pinnacles
- Metamorphosed SEDEX/Mt Isa style ~ Home of Bullion
- Carbonate replacement ~ Oonagalabi
- Hydrothermal ~ Kongo, Copper Queen

3.2 Tectonic Setting

There has been a number of papers presented by NTGS over the last 8 years outlining the diversity of mineralisation styles in the south eastern Arunta Region, the it has been interpreted to be proximal to a late Palaeoproterozoic plate margin (Scrimgeour 2006), recent dating evidence indicating a range of continued tectonic events from from 1770 Ma to 450-300 Ma Alice springs Orogeny has resulted in a complex setting and a great diversity of mineralising systems.

Large regional scale northeast and northwest-southeast trending structures are a results of the continued deformation. Of particular relevance to the Southern Cross Bore area is the Woolanga
Lineament., this major northwest trending structure that extends from the Casey Inlier in the southeast, through the Strangways Range into the northeastern Arunta Region. It has been interpreted to link with the Trans-Tanami fault system (Close, Scimgeour 2006) and may have significant economic significance, it defines a trend of Meso-Neoproterozoic, anomalous alkaline igneous and hydrothermal activity including the 1300 -1200 Ma Nolans REE-P-U deposit, the 1130 Ma Mordor Complex and the 723 Ma Mudtank Carbonatite. The Johnnies Reward Prospect is just 3kms west of the Woolanga Lineament.

The Woolanga Lineament is a long lived crustal scale structure that was a conduit for magmatism throughout the Proterozoic.

3.4 Local Geology

EL 28045 is underlain by Cadney metamorphics near the top of SMC positioned centrally within a north westerly trending rectangular area 140km long by 40km wide on the ALICE SPRINGS sheet.

Exposed in the central part of the tenement are the upper and lower units of the Cadney Metamorphics. The western half is dominated by the Lower Cadney metamorphics this unit consists of variably deformed and metamorphosed units of quartzofeldspathic gneiss and felsic granulites and host the ‘Johnnies Reward’ mineralisation. To the east marble and calc-silicates of the Upper Cadney metamorphics these host the pinnacles copper deposits.

The north trending Pinnacles fault zone bisects the licence area with upper Cadney calcisilicate and marble to the east, hosting the narrow vein Pinnacles copper deposits while to the west, the protolithic carbonate depositional environment, abruptly transitions to a pelite, psammite, volcanic intrusive and minor carbonate assemblage of metamorphosed to granulite facies, biotite-garnet-sillimanite gneiss, amphibolites, quartzite, marble, calcisilicate and mafic granulate.

The Woolanga lineament is readily apparent on satellite imagery and passes through the licence area from north west to south east.

**Johnnies Reward Prospect** occurs within lower Cadney metamorphics comprising metapelite quartzofeldspathic gneiss, felsic granulite and minor mafic granulite located stratigraphically just below the lower – upper Cadney metamorphic transitional contact. Johnnies is hosted by a north–striking, overturned east-dipping (60 degrees) metasedimentary succession dominated by quartzose gneiss subdivided into the following major lithological units:

1. Quartz – biotite – garnet gneiss
2. Quartz – feldspar – biotite gneiss
3. Diopside – tremolite – magnetite rock hosting Cu – Pb (Zn – Ag – Au) mineralisation
4. Mafic granulite referred to by Alcoa as ‘plagioclase pyroxenite’
5. Pegmatite occurring as a coarse grain equigranular pink microcline and quartz intrusive possibly related to the Wuluma granite (1728Ma).

The above are generally concordant with stratigraphy however mafic granulite is interpreted as mafic sills.

Quaternary and Tertiary cover sequences of variable depth (ranging from a few metres to in excess of 100m) conceal the basement rocks. The Johnnies Reward Prospect and the Pinnacle Cu veins system is just 3kms and 2kms respectively west of the Woolanga Lineament.

The Woolanga Lineament is a long lived crustal scale structure that was a conduit for magmatism throughout the Proterozoic. The westnorth-west trending and east-southeast trending stuctures identified at Johnnies Reward and **Black Angus** are interpreted to either splay off the Wollanga Lineament or are radial type transfer structures related to a magmatic event at depth.
4.0 HISTORY OF DEVELOPMENT AND CURRENT STATUS

4.1 Historical Mining and Exploration

The region has been partially explored for a variety of commodities including nickel, gold, copper, iron ore, bauxite and diamonds, with some areas experiencing limited or no work. In the past exploration and mining has occurred in the Pinnacles – Johnnies reward area.

Historical mining occurred within the tenement area at Pinnacles, The Pinnacles copper deposits were discovered by a prospector in search of gold in 1889. The copper mineralisation comprising malachite, chalcocite, and bornite, traces of azurite, chrysocolla, rare cuprite and native copper occur as open space fillings within quartz veins which also carry traces of gold, silver and bismuth. Black tourmaline is also present as well as siderite gangue. It was not until 1942 however, that mining commenced. The Central No. 2 shaft is the largest working on the field. 1500 tonnes of quartz was mined and hand-picked resulting in an ore parcel of 33.5 tonnes averaging 15.75% Cu and 2.9 ounces silver.

Other recorded production is as follows:

- Ophir North: 50.95 tonnes @ 9.26% copper
- Ophir South: 17.93 tonnes @ 5.27% copper
- Urals: 7.25 tonnes @ 8.24% copper
- Polly Boy: 22 tonnes @ 17.8% copper

Estimated production to the end of 1968 when mining concluded is 248 tonnes averaging 12.4% copper. Of this total, 21.6 tonnes averaged 2.9 ounces per tonne of silver.

1965-66: AGSO flew an aeromagnetic survey over the Pinnacles-Johnnies reward area in 1965. The Pinnacles area was shown to be magnetically non-descript, however a strong dipolar anomaly was delineated over Johnnies Reward. In 1965 Geopeko established a grid over the Johnnies Reward gossan and carried out ground magnetic and self- potential geophysical surveys. They tested the resultant anomaly with one (1) diamond drill hole intersecting 17m averaging 0.45g/t Au and 0.26% Cu from 62.8m down hole.

1967-69: K. McMahon and Partners Pty Ltd (for Magellan Petroleum Corporation) established a grid over the main Pinnacle workings. 219 percussion holes were drilled to a maximum hole depth of 3.65m to test bedrock geochemistry. Four (4) diamond drill holes were then completed for 465.42m with a best result from DDH Pinnacles1 of 6m @ 1.4% Cu from 3m down hole. DDH Pinnacles3 was designed to test the Johnnies Reward gossan, however the plunging nature of the lode system wasn't recognised and the hole passed beneath the lode recording a best intersection of 6m @ 0.6% Cu from 111m.

In 1967 AGSO conducted a number of ground geophysical surveys over three (3) separate grids, however the results were not published until 1971. Ground magnetic, IP and SP surveys were conducted over the entire Johnnies Reward grid as well as nine (9) lines of EM. Coincident anomalies of all four (4) methods were delineated over the Johnnies Reward gossan. On traverse 4800N, a coincident IP and EM anomaly remains untested.

In 1969 AGSO mapped the area of the 1965 aeromagnetic survey to assist interpretation of both AGSO surveys.

Ground magnetic IP and SP surveys were conducted over the entire Pinnacles grid. A broad IP anomaly was delineated which remains untested. EM and SP surveys were conducted over the New Folly grid delineating an EM anomaly over the existing workings. The EM was followed up by IP producing a weak anomaly. This also remains untested. In 1969 AGSO mapped the area of the 1965 aeromagnetic survey to assist interpretation of both AGSO surveys.

1982-88: Alcoa drilled six (6) diamond holes and sent 582 one (1) metre samples for Cu, Pb, Zn, Au, and Ag. Five (5) of the holes were collared at Johnnies Reward to test the plunging surface
ironstone. The best results were obtained from DDH 2 (Figure 3) which intersected 51m @ 1.83 g/t Au from 75m including 5m @ 4.84 g/t Au and 9m @ 5.61 g/t Au. DDH 5 intersected 32m @ 1.06 g/t Au from 112m.

In 1988 Tectonic Resources NL established a new grid orientated true north – south centred on the Johnnies Reward gossan. Six hundred and sixty two (662) soil samples were collected and assayed for gold only. Fifteen (15) RC drill holes for 454m were drilled to test the soil anomalies ranging from 10ppb to 100ppb with a best result of 15m @1.04g/t Au from 5m down hole in RC JR5.

1996: CRAE Pty Ltd conducted a ground magnetic survey over the Tectonic grid to better define the intense magnetic anomaly outlined in earlier surveys. AGSO’s findings were confirmed and a second intense but smaller anomaly was located over a gossanous skarn at Johnnies Reward North Prospect which remains untested to date.

1998: Forty-two (42) rock chip samples were taken over the general area of Johnnies Reward and The Pinnacles copper shows. They were assayed for Cu, Pb, Zn, Au, Ag, Bi, Sb, Mo, and Cr.

Figure 2: Cross Section through Peko DDH1 and Alcoa DDH2 showing Geology and Significant Intersections
Twelve (12) BLEG – 2mm drainage samples were taken from creeks draining the same area. The CRAE digital magnetic data was reprocessed delineating an arcuate demagnetised zone on the western boundary of the grid.

1999: The northern third of the Tectonic grid was extended 300 metres to the west. Allender Exploration completed a ground magnetic survey over the JR West grid. The alluvial flat between Johnnies Reward and The Pinnacles workings was also magnetically surveyed. The JR West survey delineated the westerly extent of the demagnetised zone however its prospectivity, if any, has yet to be established. The alluvial flat (Airstrip grid) is magnetically flat. Fifty-four (54) rock chip samples were taken mainly on the footwall or western contact of the Johnnies Reward mineralised sequence and the demagnetised zone. The footwall alteration halo of the JR North gossanous skarn was also sampled. All rock chip samples were assayed for Au, Ag, Cu, Pb, Zn, and Bi.

To assist regional structural interpretation and the possibility of more Johnnies Reward analogues, AGSO’s aeromagnetic data was digitised by Allender Exploration and reprocessed. No other regional dipolar magnetic anomalies were delineated. An OMNI STAR GPS Survey was undertaken to resolve ground location control difficulties. Nine (9) rocks were sent to IR Pontifex for petrological description. The rock samples were a representative section from footwall to hanging wall (west - east) across the Johnnies Reward gossan sequence. Pontifex was able to identify a north-south trending zone of greenschist facies retrogression about 200 metres wide centred on the cropping out ironstone or gossan).

2000: The ring of gossans area immediately west of Ciccone’s Shafts was GPS mapped. AGSO ground geophysical survey data was re-evaluated. The relevant plans were digitised and redrafted using 1999 OMNI Star survey co-ordinates to accurately locate and tie into the AMG the various grids i.e. Johnnies Reward, Pinnacles, New Folly and the anomalies delineated. The Landsat/SPOT satellite MSS data sets were combined to produce high resolution images. The Johnnies Reward ground magnetic data sets (CRAE and Allender Exploration) were re-interpreted. Tectonic Resources NL gold in soil results taken over the Johnnies Reward grid were digitised and reprocessed.

2006: Maximus Resources undertook geological reconnaissance on both a regional and prospect scale and flew an airborne electromagnetic and magnetic survey over the Johnnies Reward prospect area. It was concluded that the magnetite rich rocks at Johnnies Reward provided a 16Mt exploration target at a grade of 1-2g/t Au. Maximus farmed out the property to Minotaur Exploration Ltd in January 2008. Minotaur completed ground electromagnetic surveys and modeled the data to observe the relationship between conductive zones and previous drilling. Minotaur also completed a gravity survey in conjunction with the Northern Territory Government’s regional gravity program throughout the Arunta Province.

Minotaur then planned a two (2) hole drill program to test the footwall quartz-garnet –biotite gneiss which underlies the magnetite-pyroxenite unit at Johnnies Reward and which historically has only been intersected by two (2) drill holes Alcoa DDH2, 5m @ 4.84g/t Au from 92m and 9m @ 5.61 g/t Au from 102m and Peko DDH1 (Figure 2) which was not assayed below the magnetite pyroxenite. This drilling program did not proceed after Minotaur was unsuccessful in its application under the NT Governments drilling collaboration plan.
5.0  DAVENPORT EXPLORATION

5.1  2011 Exploration Activities

The 2011 programme included, a review of all historic data and two field visits and a re-
interpretation of the historic ground and airborne geophysical surveys.

5.2  Davenport – Transol Joint Venture (Now Arunta Resources Ltd)

The 2012 programme included two programs of RC drilling and a single program of soil sampling
and was conducted under a joint venture with Transol Corporation Limited. In 2013 Arunta
bought 100% of Davenport Resources Limited

5.3  2012 Activities

The first drilling program was conducted from late May to mid June of 2012 and consisted of
drilling 8 RC drill holes for a total of 1234 metres of drilling with a total of 1222 samples
submitted for assay of Au, Cu and Fe. A list of the drill holes, collar coordinates depths and
orientations are given in below in Table 2. A map showing the drill hole locations is presented as
Figure 4.

Table 2. List of hole IDs, collar coordinates, depths and orientations for 2012 RC drilling program.

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Results of the RC drilling program indicate that significant gold - copper mineralisation was
intersected. The mineralisation occurs in a pyrite-chalcopyrite bearing magnetite pyroxene skarn
and was also noted within the footwall quartz biotite garnet magnetite gneiss. A list of the
significant intersections is presented as Table 3.

Table 3. Significant intersections from May/June 2012 drilling program.

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A second phase of RC drilling was conducted between 6 and 15 December 2012 to follow-up on the results of the first drilling program. During the 10 day program 9 holes were drilled for a total of 1641 meters. Both single meter samples and four meter composite samples were collected at the time of drilling. A total of 1640 single meter samples and 430 four meter composite samples were collected and retained. Single meter samples visually judged to be from the better mineralised portions of each drill hole and composite samples from all other parts of the drill holes were selected for analysis. A total of 800 single meter samples and 143 composite samples have been submitted for assay of Au and Cu. A list of the drill hole IDs, collar coordinates, depths and orientations is given below (Table 4) and the locations of the drill holes are presented in Figure 4.
### Table 4. List of drill hole IDs, coordinates, depth and orientations for Phase 2 RCP drilling program.

<table>
<thead>
<tr>
<th>Hole ID</th>
<th>East GDA94</th>
<th>North GDA94</th>
<th>Depth (m)</th>
<th>Azimuth (°)</th>
<th>Dip (°)</th>
</tr>
</thead>
<tbody>
<tr>
<td>12JRRC009</td>
<td>419825.02</td>
<td>7440567.132</td>
<td>157</td>
<td>315</td>
<td>-60</td>
</tr>
<tr>
<td>12JRRC010</td>
<td>419805.011</td>
<td>7440568.767</td>
<td>163</td>
<td>285</td>
<td>-60</td>
</tr>
<tr>
<td>12JRRC011</td>
<td>419846.223</td>
<td>7440574.584</td>
<td>181</td>
<td>315</td>
<td>-60</td>
</tr>
<tr>
<td>12JRRC012</td>
<td>419866.079</td>
<td>7440583.576</td>
<td>191</td>
<td>315</td>
<td>-60</td>
</tr>
<tr>
<td>12JRRC013</td>
<td>419830.52</td>
<td>7440689.43</td>
<td>153</td>
<td>190</td>
<td>-50</td>
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<tr>
<td>12JRRC014</td>
<td>419889.543</td>
<td>7440588.912</td>
<td>217</td>
<td>315</td>
<td>-60</td>
</tr>
<tr>
<td>12JRRC015</td>
<td>419852.585</td>
<td>7440641.111</td>
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<td>-70</td>
</tr>
<tr>
<td>12JRRC016</td>
<td>419888.295</td>
<td>7440608.993</td>
<td>187</td>
<td>285</td>
<td>-60</td>
</tr>
<tr>
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<td>419827.576</td>
<td>7440685.412</td>
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<td>190</td>
<td>-50</td>
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</tbody>
</table>

Results from the second phase of drilling indicate that the mineralised skarn present at Johnnies Reward was intersected in all holes assayed. A list of significant intersections from this program is presented below as Table 5.

### Table 5. Significant intersections from December 2012 drilling program.

<table>
<thead>
<tr>
<th>Hole ID</th>
<th>From (m)</th>
<th>To (m)</th>
<th>Interval (m)</th>
<th>Au (g/t)</th>
<th>Cu (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>12JRRC009</td>
<td>91</td>
<td>104</td>
<td>13</td>
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<td>0.49</td>
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<td>124</td>
<td>7</td>
<td>1.12</td>
<td>0.33</td>
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<tr>
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<td>109</td>
<td>118</td>
<td>9</td>
<td>0.12</td>
<td>0.7</td>
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<td><strong>12JRRC010</strong></td>
<td><strong>120</strong></td>
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<td><strong>2.01</strong></td>
<td><strong>0.15</strong></td>
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<td>0.11</td>
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<td>0.11</td>
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<tr>
<td><strong>12JRRC015</strong></td>
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<td><strong>139</strong></td>
<td><strong>22</strong></td>
<td><strong>1.23</strong></td>
<td><strong>1.21</strong></td>
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<td>1.14</td>
<td>0.55</td>
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<tr>
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<td>167</td>
<td>7</td>
<td>0.42</td>
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<tr>
<td>12JRRC017</td>
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<td>126</td>
<td>8</td>
<td>0.75</td>
<td>0.61</td>
</tr>
<tr>
<td><strong>12JRRC017</strong></td>
<td><strong>129</strong></td>
<td><strong>135</strong></td>
<td><strong>6</strong></td>
<td><strong>1.02</strong></td>
<td><strong>1.2</strong></td>
</tr>
</tbody>
</table>

### 5.4 Soil Sampling program

From 30 October to 14 November 2012 a program of soil sampling was conducted to the north and northwest of the Johnnies Reward Prospect. Two areas were gridded the first immediately to the north of North Johnnies Reward and the second about 2.3kms northwest. A single soil line was completed over the gold in soil anomaly associated with the Johnnies Reward Prospect to allow for comparison with the two gridded areas. A total of 18.5 line kilometres was completed with 393 soil samples collected a map of the soil sample locations is presented below as Figure 5. All samples were submitted for assay for Au, Ag, As, Bi and Cu.

The results of the soil sampling program identified a multi-element (Au, Ag, As, Bi and Cu) anomaly in the northwest portion of the gridded area to the north of North Johnnies Reward. The greater than 0.01 ppm gold in soil anomaly is in excess of 300m length in a northwest southeast direction and remains open to the east.
**Figure 5.** Soil sampling program location map showing Au results

**Figure 6.** Soil sampling program location map showing contours open to the south east
6.0 EXPLORATION CONCEPT

Known potentially economic mineralisation at the Johnnies Reward prospect (2kms south) is hosted by a north striking, moderately east dipping sequence (Cadney Metamorphics of the Strangway Metamorphic Complex) dominated by a quartzose gneiss, the mineralisation is with a diopside-tremolite-magnetite-rock which responds well to electrical geophysical exploration methods and is distinct bullseye magnetic anomaly.

At Johnnies Reward there is direct drilling evidence of a second mineralised lode characterised by high gold values in the footwall quartz – biotite - garnet rich gneiss these only have minor or accessory magnetite and that lack diopside and tremolite, this footwall mineralisation is also associated with bismuth and molybdenum. This non-magnetic Au dominated style of mineralisation has never been recognised elsewhere in the Johnnies Reward sequence and was the focus of the recent surface soil sampling exercise. This soil work has established the presence of a large WNW trending soil anomaly of Au-Cu-Ag-Bi in non-magnetic meta sediments. The prospective geological “Johnnies Reward” sequence is cut by a major WNW shear/thrust. The geochemical anomaly is co-incident with a prominent circular magnetic low. This Au dominant anomaly appears to be in a structure originating from the Woolanga Lineament. (see Figure 7 – Regional magnetic and structure plan)

The Woolanga Lineament is a long lived crustal scale structure that was a conduit for magmatism throughout the Proterozoic. The westnorth-west trending and east-southeast trending structures identified at Johnnies Reward and Black Angus are interpreted to either splay off the Woolanga Lineament or are radial type - transfer structures related to a magmatic event at depth. The contact between the Lower and Upper Cadney metamorphics at this location is a tectonic/shear contact (this is not seen at Johnnies Reward) with intercalated lenses of Lower Cadney gneiss and altered amphibolites mapped in the WNW shear. This area will be mapped and infill soil sampled prior to the final selection of drill sites.

DRL proposes 2 deep diamond drill holes to test this concept, provide confirmation of the style of mineralisation and geology ascertain the potential for economic mineralisation. Confirmation of this would establish an exciting new exploration area.

Figure 7. Regional magnetic and structure plan
7.0 DETAILS OF THE NT COLLABARTION PROGRAM

7.1 2013 Activities

Originally the 2013 NT Collaboration program planned consisted of 2 holes of NQ diamond drilling for a total of 400m at Black Angus. However due to the ground conditions only one hole was drilled.

Over the Black Angus geochemical anomaly 17 RC holes (BARC018 - 034) were drilled on four northeast-southwest running lines prior to selecting the final location for the proposed diamond hole. Drill line 1 included holes 13BARC018-023, line 2 included holes 13BARC024-027 line 3 included holes 13BARC028-031 and line 4 included holes 13BARC032-034 (Figure 8 and 9).

A single RC with diamond tail, 13BARCD038 was completed located between lines 3 and 4. Results confirmed the presence of broad zones of anomalous gold-silver and base metals in an extensively sheared contact between the Upper and Lower Cadney Metamorphics, comprising calcilicate-biotite-garnet gneiss and marble in the footwall and hanging wall respectively. The 20m-40m wide sheared contact is a strongly weathered quartz-sericite schist that has been mapped at surface over a 4km strike length and remains strongly open to the south and north-west. This contact is a major structural zone that is geochemically anomalous in precious and base metals with numerous surface gossans located along its strike length.

All samples were be sent to ALS in Alice Springs for preparation prior to shipping to Perth for analysis. The coordinates for the single diamond drill hole is listed below in Table 6, and shown on figure 8.

<table>
<thead>
<tr>
<th>HOLE_ID</th>
<th>E_GDA94</th>
<th>N_GDA94</th>
<th>DEPTH</th>
<th>AZIMUTH</th>
<th>DIP</th>
</tr>
</thead>
<tbody>
<tr>
<td>13BARCD038</td>
<td>419974</td>
<td>7442220</td>
<td>168</td>
<td>225</td>
<td>-60</td>
</tr>
</tbody>
</table>

Table 6. Diamond drill program hole location, depths and orientation.
Figure 8. Black Angus drill hole location plan.

Figure 9. Black Angus line 3 cross section.
7.2 Sampling

The diamond drilling program was done with NQ sized core and when possible core was oriented using a Reflex core orientation device. Following retrieval core was placed in either metal or plastic trays and all driller induced breaks marked. Following completion of the diamond tail down hole surveys using a non-gyro single shot survey camera were taken. Although surveys were done outside the rods the azimuths for surveys completed at Johnnies Reward are suspect due to the presence of significant amounts of magnetite present at this prospect.

On completion of drilling all diamond core was oriented with a bottom of the hole line marked on the core as defined by the orientations marks made by the drillers. Following orientation the core was marked up in one meter intervals after which it was photographed. After photography recoveries and RQDs were measured and recorded. This was followed by lithological logging and when possible structural logging of the core.

8.0 Results

The shallow RC drilling intersected a broad, base metal copper-lead-zinc anomalism within a deeply weathered quartz sericite altered sheared unit in the footwall to the gold mineralisation in drill lines 1 to 4. It is postulated that mineralisation has been substantially leached from the weathered zone and the economic target at Black Angus is in the primary zone of the sheared system.

Drill-hole 13BARCD038 was drilled to intersect the shear zone at a depth of 180 to 250m, south-east of drill Line 3 (Figure 7). The quartz-sericite-goethite-hematite shear was intersected at 157.8m (anomalous results from 157.5 to 159.1m, see table ). Core recovery from this depth was poor and the hole collapsed from 166m and was eventually abandoned at 168m.

Table 7: Assay Results

<table>
<thead>
<tr>
<th>Hole</th>
<th>From</th>
<th>To</th>
<th>Interval</th>
<th>Au ppm</th>
<th>Ag ppm</th>
<th>Cu ppm</th>
<th>Bi ppm</th>
<th>As ppm</th>
<th>Pb ppm</th>
<th>Zn ppm</th>
</tr>
</thead>
<tbody>
<tr>
<td>13BARCD038</td>
<td>157.5</td>
<td>158</td>
<td>0.5</td>
<td>&lt;0.01</td>
<td>&lt;0.5</td>
<td>304</td>
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<td>35</td>
<td>147</td>
<td>117</td>
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<tr>
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<td>159.1</td>
<td>1.1</td>
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<td>&lt;0.5</td>
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<td>3</td>
<td>21</td>
<td>60</td>
<td>436</td>
</tr>
<tr>
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<td>162.2</td>
<td>3.1</td>
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<td>&lt;0.5</td>
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<td>87</td>
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<td>&lt;0.5</td>
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<td>5</td>
<td>45</td>
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<td>&lt;0.5</td>
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<td>137</td>
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<td>&lt;0.5</td>
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<td>&lt;5</td>
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<td>&lt;0.01</td>
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<td>3</td>
<td>&lt;5</td>
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<td>&lt;0.01</td>
<td>&lt;0.5</td>
<td>23</td>
<td>2</td>
<td>&lt;5</td>
<td>48</td>
<td>280</td>
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</table>

9.0 Conclusion

It was postulated that mineralisation has been substantially leached from the weathered zone and the economic target at Black Angus is in the primary zone of the sheared system. Drill hole 13BARCD038 intersected the shear zone at 157.8m. Core recovery from this depth was poor and the hole collapsed below 166m and was abandoned at 168m. Elevated copper, zinc, bismuth and arsenic was noted in assays from 157.5m to 159.1m. Increasing grades of anomalism from surface strongly support this zone being a key target for base-metal VMS or carbonate replacement style mineralisation. Unfortunately the hole was abandoned due to ground conditions, short of its final target of 200-250m.
10.0 REFERENCES


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