ANGLO AUSTRALIAN RESOURCES NL

VICTORIA RIVER DOWNS
SURRENDER REPORT FOR EL27366

Project Title Holder: Anglo Australian Resources NL

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Author: J Chellew
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Any information included in the report that originates from historical reports or other sources is listed in the “References” section at the end of the document. This report may be released to open file as per Regulation 125(3)(b).
ABSTRACT

This final report is for EL27366, which formed a part of the GR089/13 Victoria River project. Since 29 January 2013, the project has been operated by MMG Exploration Pty Ltd in joint venture with Anglo Australian Resources NL. MMG Exploration Pty Ltd withdrew from the JV in late 2014.

Vehicle access to the project area is via the Victoria, Buchanan and Buntine Highways, thence station tracks.

The Victoria River Downs exploration target is a large sedex Zn-Pb-Ag system within a Mesoproterozoic sub-basin. The area of interest is a linear gravity-feature interpreted as a potential shale basin which is obscured by geochemically opaque Neoproterozoic Sandstone and Cambrian Volcanics. Age dating within the stratigraphic sequences suggest dates from 1,645my (Limbunya Group) to 1,610 – 1,570my (Bullita Group), which is within the age range of all major Australian Sedex zinc deposits.

2007 to 2008, data from the open file reports pertaining to the VRB Project area was used to construct a robust, validated database. Anglo reprocessed the geochemical data and Geotem, gravity, aeromagnetics and landsat images.

The NTGS completed a regional gravity survey. Interpretation of this gravity data in conjunction with other imaged data sets generated robust interpretations showing major lineaments, which correlate with faults mapped by the NTGS. Major structural features which had not been previously documented, were evident on imaged early time channel data.

Southern Geoscience reprocessed AGSO gravity data, which showed the presence of basement highs and linear gravity lows, the resolution of which would be refined by infill gravity readings in areas of specific interest.

Anglo undertook a regional reconnaissance geochemical sampling program (i.e. stream sediment, rock chip and soil samples). This work successfully confirmed the robustness of previous anomalies identified and highlighted prospective areas of interest in the vicinity of the Victoria River Downs Homestead. The statistically processed geochemical data showed a zoning of the base metal occurrences, from principally lead domains to zinc-copper domains. This work highlighted a distinct zinc-copper domain along the western and southern margins of the VRB. By contrast lead-copper anomalism dominates the central-eastern portion of the VRB. Areas of strong base metal anomalism are generally associated with the calcareous sediments of the Bullita Group and major structural corridors.

From 2008 to 2009, the data from an airborne GEOTEM EM survey completed ~1996 was re-processed by Southern Geoscience Consultants. The survey detected one good quality, discrete, late time anomaly (A68) plus numerous, lower quality response. A total of 68 anomalies were identified. The majority of these anomalies appeared to be related to conductive surficial (regolith) or possibly shallow, flat dipping bedrock stratigraphic units rather than being discrete bedrock conductors.

The only late time anomaly interpreted as a possible bedrock conductor (A68) coincides with litho-structural target 5E, defined by Anglo. This target is characterized by the triple point intersection of major faults trending N-S, NE-SW and NW-SE. Some of the stratigraphic conductors might have potential for stratiform- stratabound sulphide mineralisation as they
may be related to thick sulphidic shale (basinal) sequences.

In 2009 to 2010, Anglo conducted a helicopter-supported gravity survey in two areas. The northern part of the survey (based on readings spaced 1 km x 1 km) was designed to target a major north south fault and associated splay faults and domes over a strike length of 50 km near Victoria River Downs Station. The southern half of the survey in the Mt Sanford area (100 km south west of Victoria River Downs Homestead) was also conducted initially on a 1 km x 1 km basis and then infilled to 500m x 500m.

The gravity data assisted in the interpretation of the geology and the development of targets. The most promising targets were developed in the Mt Sanford area where a broad gravity low is highlighted, sub-parallel to and east of a major NW trending fault (Pear Tree Fault). This area was interpreted to be a potential shale basin.

From 2010 to 2011, the interpreted gravity targets were followed up with stream sediment and rock chip samples. No evidence of outcropping mineralisation was discovered. Stream sediment samples collected in the vicinity of the gravity targets were 1 to 2 times above background in Zinc (i.e. moderately anomalous). The highest values were collected in streams overlying the B1 and B2 target areas which contained sediments dominated by weathered Cambrian volcanics.

Southern Geoscience reviewed the gravity data which showed an open ended 2-5km wide gravity low sitting on the eastern flank of a fault zone (named Pear Tree Fault). This low is interpreted as basin dominated by low density lithologies such as shales. Further interpretations concurred with Southern Geoscience’s gravity interpretation and highlighted the visibility of a strike extensive NW-SE structure on a continental scale.

No exploration work was completed from 2011-2013, as Anglo was seeking a joint venture partner to advance the project. A joint-venture agreement was completed with MMG in January 2013, but continuing wet season rains prevented field work for the remainder of the reporting period.

In June 2013, Fugro Airborne Surveys undertook an airborne TEMPEST electromagnetic survey over the Victoria River project area. The survey consisted of three test lines totalling 24 line km. This was part of a wider survey of 1048 line km, mostly over the nearby GR241/12 Mt Sanford project. The small survey was designed to re-test an anomaly (A68) from a 1996 BHP GEOTEM survey. This anomaly was described as the only significant discrete possible bedrock conductor, when the 1996 survey was reprocessed in 2008. Before the 2013 survey, the anomaly was inspected in the field. A large cattle yard was located roughly the same location as the anomaly. The 2013 was designed to confirm the cattle yard was responsible for the anomaly and that it was not caused by a bedrock source.

The survey confirmed the anomaly was a result of a cattle yard. There was a magnetic anomaly coincident with the conductor, which is typical for steel structures. In addition, the location of the anomaly matched the cattle yard.

MMG withdrew from the Joint Venture on the 28th November 2014 and tenement was relinquished by Anglo Australian Resources NL on the 15th January 2015.
1.1 INTRODUCTION:

This document is a final report of exploration activities for EL27366, which formed a part of the GR089/13 “Victoria River” project for the period 11 January 2010 to 15 January 2015.

MMG withdrew from the Joint Venture AAR on the 28th November 2014.

1.2 LOCATION AND ACCESS:

The Victoria River Basin (VRB) tenements are located approximately 450km south of Darwin (NT), 200km east of Kununurra (WA) and 250km southwest of Katherine (NT) (Figure 1). The tenement is located on the Victoria River Downs, Limbunya and Wave Hill 1:250 000 scale map sheets. The tenement is part of the Victoria River Project area which covers six granted tenements.

Access to the tenement is via the Victoria, Buchanan and Buntine Highways, thence station tracks. Throughout the VRB the stratigraphy is generally flat lying or shallow dipping. However, there are a number of localised domal features adjacent to prominent faults or lineaments. Half the Victoria River Project area is within the Gregory National Park, which is in the process of being converted to Aboriginal Freehold Land.

1.3 WEATHER:

The wet season normally lasts from November to March. The annual rainfall ranges from 38-51cm. The evaporation rate is 260cm per annum. During the summer months the daily maximum temperature usually exceeds 38 degrees Celsius. In July the daily temperature range is 10-27 degrees Celsius.

1.4 TENURE:

EL 27366 was originally granted to Anglo Australian Resources NL (Anglo) on 10th January 2010 for a period of six years. The licence area originally comprised a total of 47 blocks which is now reduced to 34 blocks. MMG Australia Pty Ltd and Anglo concluded a joint-venture agreement on the 29 January 2013 whereby MMG would manage/operate future exploration on the tenement.

In June 2014, a Partial Cancellation (i.e. a penalty of 13 blocks) was issued from the DME, due to not having met the expenditure condition for two consecutive years. The units selected for this cancellation are given in Table 1.

On the 15th January 2015 Anglo Australian Resources NL surrendered the remainder of the tenement.

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**TABLE 1: Victoria River Basin EL27366 Tenement Details:**
1.5 EXPLORATION RATIONALE

MMG and Anglo are targeting SEDEX-style zinc-lead-silver deposits (e.g. HYC 227Mt at 9.3% Zn, 4.1% Pb, 92g/t Ag) in the Mesoproterozoic Victoria River Basin. The Basin has strong similarities to the Macarthur and Nicholson Basins which host the giant Macarthur River and Century SEDEX-style zinc deposits. The project covers a sequence of Proterozoic sediments dominated by dolomitic carbonates and other fine-grained sediments. The sediments are generally flat lying with an overall very shallow north-easterly dip.

The Fraynes Formation and Kunja Siltstone (Limbunya Group), the Mount Sanford Formation (Wattie Group) and the Timber Creek Formation (Bulita Group) are considered the most prospective for SEDEX style of mineralisation targeted by Anglo Australian Resources NL, particularly adjacent to interpreted growth faults. The Victoria River Downs area contains:

1. A large regional base metal geochemical halo.
2. A sedimentary package that can be correlated with the McArthur River Basin.
3. Fine grained shales and chemical sediments that could host a SEDEX deposit.
4. Age dating of the same age as other Australian Proterozoic base metal deposits.
5. Major regional structures that may have acted as growth faults during the evolution of the basin.
6. Unusual domal and monoclinal structures adjacent to major growth faults.
7. Evidence of local SAG basins.
2.1 Regional Geology:

The project area is located in the Victoria River region, principally within the Victoria River Basin (VRB), which overlies the basement Sturt block and consists of a 3.5km thick sequence of little deformed sedimentary rocks that cover ~160,000sq kms.

The stratigraphic sequence from the basement Invery Metamorphics and Pine Creek volcanics upwards, consists of the Proterozoic Birrindudu and Limbunya Group sediments which form the lower Birrindudu Basin, which is overlain by the sediments of the Victoria River Basin consisting of the Wattie, Bullita, Tijunna and Avergne Groups.

The VRB is bounded to the northwest by the Fitzmaurice mobile zone, to the southwest by the Ord Basin, to the south by the Carpentarian Birrindudu Basin, and to the southeast by Paleozoic Wiso Basin, to the Northeast by the Pine Ck geosyncline.

Birrindudu Basin was accompanied by regionally extensive north-trending growth faults. Deposition in both Birrindudu and Victoria Basins includes several phases of intra-cratonic SAG. Strata dip away from the centres of depositional basins and is attributed to basement uplift.

The major structural elements are shown on the various 1:250,000 geological plans. This data has been supplemented by lineament studies completed from aeromagnetic, Geotem, gravity and Landsat data.

The imaged Geotem has enhanced the presence of a north trending 50km long by 5km wide structural corridor, which isn’t evident from mapping or other geophysical surveys.

This structural corridor is truncated north and south by WNW trending regional lineaments, such as the Limbunya Fault in the south and, with sub-parallel Gill and GB faults.

Other major structural directions include the NW, NE and E-W lineaments.
Figure 2: Regional Geology
2.2 Stratigraphy

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TABLE 2 REGIONAL STRATIGRAPHIC COLUMNS

- **Top**
  - Cambrian
  - Atrium Volcanics, 250m thick, tholeiitic basalt and agglomerate, with minor sandstone, chert and limestone interbeds cover the whole region. Unconformably overlies the Proterozoic sequence.

- **Proterozoic**
  - Wolfe Creek Basin
  - Victoria River Basin consists of the upper Auvergne, Tijunna, Bullita and lower Wattie Groups.
  - Birrindudu Basin is composed of the Limbunya Group sediments and carbonate rocks are developed on the edges of gravity highs, which represent uplifted basement blocks.

- **Lower Proterozoic**
  - Metamorphic basement of the Pine Creek and Halls Ck orogens
### TABLE 3 THE VICTORIA RIVER BASIN – PROTEROZOIC STRATIGRAPHIC COLUMN

**Top**

Auvergne Group  
Jasper Gorge Sandstone Fm  80m thick  
Unconformably overlies the Wondoan Hill Fm.  
Consists of massive to blocky quartz sandstone, minor siltstone and local basal conglomerate.  
Generally resistant and caps plateau and mesas.

Wondoan Hill Fm  145m thick  
Unconformably overlies the Bullita Group. Consists of quartz sandstone and glauconitic sandstone, with minor claystone and siltstone.

**Bullita Group**

Battle Ck Fm  80m thick  
Conformably overlies the Weaner Sandstone.  
Consists of greenish to purple siltstone with dark brown coarse-grained glauconitic dolomite. At the middle of the formation is a series of red brown stromatolitic dolomite and at the top is brown yellow sandstone.

Weaner Sandstone  3-15m thick  
Conformably overlies the Bynoe Fm. It is a thin series of white to brown sandstone and grits that are pebbly towards the base.

Bynoe Fm  190-243m thick.  
The basal part contains green and purplish micaceous siltstones and shales with few sandstone and dolomite interbeds. The rest of the Fm consists of thinly bedded sandstone and slightly micaceous siltstone.

Skull Ck Fm  162-229m thick,  
Predominantly dolomitic with silty upper and lower parts. The lower contact is defined by a 3m thick stromatolitic horizon. It contains pyrobitumen and disseminated pyrite. The formation has undergone varying degrees of dolomitisation.

Supplejack Dolomite Mb  17-28m thick,  
Massive thickly bedded dolomite and dolarenite within 60m of the top of the Skull Ck Fm.  
Stromatolitic near the top. Rare disseminated pyrite and galena occur. Upper and lower contacts are regionally anomalous in base metals. Epigenetic galena is commonly visible.

Timber Ck Fm  135-306m thick  
Forms the basal unit of the Bullita Group and consists of thinly interbedded siltstone, fine sandstone and dolostone, pyrobitumen and disseminated pyrite and epigenetic galena. Locally stream sediments anomalous in zinc. –Prospective horizon for SEDEX style mineralisation.

The high carbonate content of the Bullita Group distinguishes it from the conformably underlying Wattie Group, dominated by sandstone stratigraphy.

**Wattie Group**

Seale Sandstone  100m thick  
Massive fine and medium grained sandstone

Gibbie Formation  25-75m thick
Micaceous siltstone, sandstone and minor shale. Argillitic phases locally ferruginous. Local abundant pyrite

Neave Sandstone < 20m thick

Lithic medium grained sandstone, minor conglomeratic sandstone

Mount Sanford Formation up to 200m thick

Chocolate and green siltstone, dolomite, interbedded fine sandstone, claystone and shale. Potential host for sediment hosted base metal deposit.

Hughie Sandstone < 100m thick

Sandstones and orthoquartzite with minor carbonate

Burtawurta Formation 30m thick

Siltstone interbedded with fine sandstone

Wickham Formation 175m - 315m thick

Sandstone, conglomerate and chert disconformably overlying the Limbunya group

Limbunya Group
Killaloe Formation 0-60m thick

Siltstone, dolomite and minor sandstone

Fraynes Formation 110m-130m thick

Silty dolostone, dololuite, purple green micaceous siltstone, containing psuedomorphs of evaporates. The top of the formation is defined by a chert breccia. Potential host for sediment hosted base metal deposit.

Campbell Springs Dolomite 160m-320m thick

Grey stromatalitic dolostone, doloarenite, dolorudite, dolosiltite, dolomitic mudstone and minor tuffite. SHRIMP date of 1638Ma.

Lower Limbunya Group 480m-640m thick

Includes Blue Hole Formation, Farquarson Sandstone, Kunja Siltstone (Potential host for sediment hosted base metal deposit), Mallabah Formation, Amos Knob Formation, Pear Tree Dolomite, Magery Formation and Stirling Sandstone

Invermay Metamorphics

Muscovite quartz schist, acid vocanics. Basement in the Birrindudu Basin.
The Company is targeting SEDEX-style zinc-lead deposits in the Victoria River Basin. The Basin has strong similarities to the Macarthur and Nicholson Basins which host the giant Macarthur River and Century SEDEX-style zinc deposits. The project, located 200 km east of Kununurra (WA) and 250 km southwest of Katherine (NT), covers a sequence of Proterozoic sediments dominated by dolomitic carbonates and other fine-grained sediments. The sediments are generally flat lying with an overall very shallow north-easterly dip.

The Fraynes Formation and Kunja Siltstone (Limbunya Group), the Mount Sanford Formation (Wattie Group) and the Timber Creek Formation (Bullita Group) are considered the most prospective for SEDEX style of mineralisation targeted by Anglo Australian Resources NL, particularly adjacent to interpreted growth faults.

**Figure 3. Stratigraphic column**

The Company is targeting SEDEX-style zinc-lead deposits in the Victoria River Basin. The Basin has strong similarities to the Macarthur and Nicholson Basins which host the giant Macarthur River and Century SEDEX-style zinc deposits. The project, located 200 km east of Kununurra (WA) and 250 km southwest of Katherine (NT), covers a sequence of Proterozoic sediments dominated by dolomitic carbonates and other fine-grained sediments. The sediments are generally flat lying with an overall very shallow north-easterly dip.

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2.3 REGIONAL STRUCTURE:

The McArthur River and Mississippi styles of base metal mineralization are strongly influenced by structure. Thus it’s essential that the major structural controls are well documented and robust geological models are generated for the evolution of the Victoria River Basin sedimentation as it has been influenced by faulting within the basement rocks.

An overview of the regional geology plans highlight major structural trends, which are dominated by:

- Major boundary faults trending 030-045 magnetic
- Faults trending 110-130 magnetic
- Major faults trending 130-140 magnetic
- Domal structures trending 150-170 magnetic
- Regional folding trending 360-020 magnetic

This configuration of faults and folds supports a regional E-W compressional stress regime, characterised by brittle to brittle-ductile deformation.

The 110-130 degree trending structures are possible extensional with a theoretical sinistral component of displacement. This structural orientation dominates the Victoria River Basin and is likely to be the dominant growth fault orientation in addition to E-W normal faults, which are likely to occur.

Major anticlinal and synclinal structures with N-S orientated axial planes, have been mapped at Bullita Station and the Fitzgerald Range near Victoria River downs. These may reflect extended periods of E-W compression that may have existed during deposition and post consolidation of the stratigraphic column.

This E-W stress regime may have generated E-W orientated extensional normal faults that may have existed during sedimentation so as to generate growth fault environments.

3. PREVIOUS WORK

From 2007 to 2008, data from the open file reports pertaining to the Victoria River Basin (VRB) Project area was used to construct a robust, validated database. This database is composed of 23,734 stream sediment samples, 375 rock chip samples, 191 soil samples and data for 78 drill holes. Anglo reprocessed the geochemical data and Geotem, gravity, aeromagnetics and landsat images.

The NTGS completed a regional gravity survey based on 10km square survey stations. Interpretation of this gravity data in conjunction with other imaged data sets generated robust interpretations showing major lineaments, which correlate with faults mapped by the NTGS. Major structural features, which had not been previously documented, were also evident on imaged early time channel data. This structural data significantly enhanced the prospectivity of the VRB for litho-structurally controlled base metal mineralisation.

Southern Geoscience reprocessed AGSO gravity data, which showed the presence of basement highs and linear gravity lows, the resolution of which would be refined by
infill gravity readings in areas of specific interest.

Anglo undertook a regional reconnaissance geochemical sampling program. A total of 265 stream sediment, 115 rock chip and 92 soil samples were taken and submitted for multi-element analyses. This work successfully confirmed the robustness of previous anomalies identified and highlighted prospective areas of interest in the vicinity of the Victoria River Downs Homestead. The geochemical data was then statistically processed, normalised and anomalous thresholds were generated for copper, lead and zinc. A strong zoning of the base metal occurrences was identified, from principally lead domains to zinc-copper domains. This work highlighted a distinct zinc-copper domain along the western and southern margins of the VRB. By contrast lead-copper anomalism dominates the central-eastern portion of the VRB. Areas of strong base metal anomalism are generally associated with the calcareous sediments of the Bullita Group and major structural corridors.

From 2008 to 2009, the data from an airborne GEOTEM EM survey completed over ~20% of Anglo’s Victoria Downs project area in ~1996 was re-processed by Southern Geoscience Consultants. The interpretation formed a part of Anglo’s exploration programme assessing the base metal (McArthur River style mineralisation) potential within the Victoria Downs project.

The survey detected one good quality, discrete, late time anomaly (A68) plus numerous, lower quality responses, some of which could be geologically significant. A total of 68 anomalies were identified. The majority of these anomalies appeared to be related to conductive surficial (regolith) or possibly shallow, flat dipping bedrock stratigraphic units rather than being discrete bedrock conductors.

The only late time anomaly interpreted as a possible bedrock conductor (A68) coincides with litho-structural target 5E, defined by Anglo. This target is characterized by the triple point intersection of major faults trending N-S, NE-SW and NW-SE. Some of the stratigraphic conductors might have potential for stratiform-stratabound sulphide mineralisation as they may be related to thick sulphidic shale (basinal) sequences.

The remaining anomalies are equally divided between those located adjacent to major lineaments and those distal to major lineaments probably associated with particular stratigraphic units. In addition, interpretation of the Geotem images has identified major structures not previously recognized and this includes a 5km wide by 50km long corridor of structural complexity, along which major domal structures have been developed. This structural corridor is intersected and offset by major cross faults.

During 2009 to 2010, Anglo conducted a helicopter-supported gravity survey, consisting of 1,589 gravity readings in two areas on granted Victoria River Downs tenure. The northern part of the survey (based on readings spaced 1 km x 1 km) was designed to target a major north south fault and associated splay faults and domes over a strike length of 50 km near Victoria River Downs Station. This area contains extensive stream sediment geochemistry zinc-lead anomalies. The southern half of the survey in the Mt Sanford area (100 km south west of Victoria River Downs Homestead) was also conducted initially on a 1 km x 1 km basis and then in-filled to 500m x 500m.

The gravity data assisted in the interpretation of the geology and the development of targets. The most promising targets were developed in the Mt Sanford area where a broad gravity low is highlighted, sub-parallel to and east of a major NW trending fault (Pear Tree Fault). This area was interpreted to be a potential shale basin. Two areas within this gravity low were selected as potentially to be dilational sub basins. In addition 5 discrete gravity anomalies in the Mt Sanford area have been highlighted as
potential direct targets.

The large domal structure just north of the Victoria River Downs Station centred on the Fitzgerald Range had high Pb geochemistry in streams, rock chips and soils on the south eastern edge of the dome. However as no major faults are mapped in this area or reflected in the gravity, the potential for growth structures in the area is considered to be limited. A salt dome model proposed by earlier explorer BHP may still have some viability. A regional gravity low could support this theory.

The geological interpretation highlighted at least three areas within the Gregory National Park where sub-basins may have been developed adjacent to growth structures. One of these areas has highly anomalous Zn stream sediment geochemistry while the other two areas are deficient in geochemical data.

In the fourth year of tenure (i.e. 2010-2011), the interpreted gravity targets were followed up with 20 stream sediment samples and six rock chip samples. No evidence of outcropping mineralisation was discovered. Rock chips of goethitic ironstone, associated with a silty sediment from the G3 target area were anomalous in lead (154ppm) and zinc (138ppm). All other samples collected from the reconnaissance program contained only background values of base metals.

Stream sediment samples collected in the vicinity of the gravity targets were 1 to 2 times above background in Zinc (with a maximum of 82ppm in the vicinity of the B2 target). These values can be considered moderately anomalous. The highest values were collected in streams overlying the B1 and B2 target areas which contained sediments dominated by weathered Cambrian volcanics. It is uncertain whether these reflect a halo to underlying mineralisation or the normal background values associated with the Cambrian Volcanics. Copper and lead values were at background levels.

Consultant Southern Geoscience were contracted to review the gravity data. The data showed an open ended 2-5km wide gravity low sitting on the eastern flank of a fault zone (named Pear Tree Fault). This low is interpreted as basin dominated by low density lithologies such as shales. Further interpretations concurred with Southern Geoscience’s gravity interpretation and highlighted the visibility of a strike extensive NW-SE structure on a continental scale.

No exploration work was completed from 2011 to 2012, as Anglo was seeking a joint venture partner to advance the project. A joint-venture agreement was completed with MMG in January 2013, but continuing wet season rains prevented field work for the remainder of the reporting period.

4. WORK COMPLETED FROM 06/03/2013 TO 10/01/2014

4.1 REVIEW AND RECONNAISSANCE

After the formation of the JV between MMG and Anglo, historic exploration and exploration completed by Anglo was reviewed by MMG personnel.

Reconnaissance field trips were completed in March and April. Stratigraphy as mapped by the NTGS was inspected to further understand the geology of the region, with no samples taken. Stakeholders were consulted to discuss access and notify of the airborne survey.
4.2 TEMPEST SURVEY

In June 2013, Fugro Airborne Surveys (FAS) undertook an airborne TEMPEST electromagnetic survey over the Victoria River project area (Figure 2). The survey consisted of three test lines totalling 24 line km. This was part of a wider survey of 1048 line km, mostly over the nearby GR241/12 Mt Sanford project.

The survey was flown using a SHORTS SKYVAN aircraft. The EM receiver computer was an EMFASDAS. The transmitted waveform is a square wave of alternating polarity, which is triggered directly from the EM receiver computer. The nominal transmitter base frequency was 25 Hz with a pulse width of 10 ms (50 % duty cycle). Loop current waveform monitoring is provided by a current transformer located directly in the loop current path to allow for full logging of the waveform shape and amplitude, which is sampled by the EM receiver.

With the FASDAS acquisition system the raw EM data including fiducial, local time, X and Z axis sensor response, current monitor and bird auxiliary sensor output are recorded on the EM receiver computer as “*.raw” EM files. Logging to the files is continuous, however, a new *.raw EM file is created when the size of the previous one reaches 1GB. The FASDAS Survey computer records a continuous MSD file which contains all other ancillary data including magnetic, altimeter, GPS and analogue channels.

Two GPS base logging stations were set up at Timber Creek Airstrip. The sensor was contained in the CF1 unit. Each GPS base station position was calculated by logging data continuously at the base position over a period of approximately 24 hours. These data were then statistically averaged to obtain the position of the base station using GrafNav software. A full report on survey is available in appendix 1. Raw data is available in appendix 2.

The small survey was designed to re-test an anomaly (A68) from a 1996 BHP GEOTEM survey. This anomaly was described as the only significant discrete possible bedrock conductor, when the 1996 survey was reprocessed in 2008. Before the 2013 survey, the anomaly was inspected in the field. A large cattle yard was located roughly the same location as the anomaly. The 2013 was designed to confirm the cattle yard was responsible for the anomaly and that it was not caused by a bedrock source.

The survey confirmed the anomaly was a result of a cattle yard. There was a magnetic anomaly coincident with the conductor, which is typical for steel structures. In addition, the location of the anomaly matched the cattle yard.

5. CONCLUSIONS AND RECOMMENDATIONS

After MMG review of the tenure, they made a decision to withdraw from the JV in late 2014. Anglo have found sufficient mineralization to warrant further exploration in the current market, and have subsequently allowed the title to lapse.
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