

REGENCY MINES PLC
BUNDARRA PROJECT
VTEM AND AEROMAGNETICS SURVEYS AND INTERPRETATION

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Queensland, Australia

1:50,000 map sheet(s):**1:250,000 map sheet(s):**

Mackay (SF 55-8), St. Lawrence (SF 55-12), Clermont (SF 55-11), Mt. Coolon (SF 55-7)

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ABBREVIATIONS

1VD	First vertical derivative
B Field	EM magnetic field
CDI	Conductivity depth inversion / conversion
dB/dT	Time derivative of EM magnetic field
DEM/DTM	Digital elevation or terrain model
EM	Electromagnetics
GIS	Geographic Information System
GPS	Global Positioning System
IP	induced polarisation
K	Potassium channel radiometrics
MGA	Map Grid of Australia
QC	Quality control
RTP	Reduced-to-pole magnetics
SGC	Southern Geoscience Consultants
TC	Total count radiometrics
TEM	Transient or time-domain EM
Th	Thorium channel radiometrics
TMI	Total Magnetic Intensity
U	Uranium channel radiometrics

SUMMARY

Regency Mines commissioned Southern Geoscience Consultants (SGC) to process and interpret the 2011 Bundarra airborne EM-magnetics (VTEM) survey over their Bundarra project. Digital images, profiles, contours and GIS files of the processing and interpretation undertaken by SGC have been supplied to Regency.

The EM data from the Bundarra survey is considered to be good quality and should provide an effective means of identifying significant conductive copper-gold sulphide concentrations at shallow to moderate depth within and adjacent to the Bundarra Intrusive Complex.

The VTEM magnetics has been merged with public domain aeromagnetics. Public domain radiometrics data has also been processed. The quality of the merged aeromagnetics is reasonable, with some levelling-processing difficulties encountered in the VTEM data because of the different flight line directions used. The quality and resolution of the public domain radiometrics is moderate.

Twenty-two high and moderate priority EM anomalies have been identified and recommended for follow up. The presence of a conductive shale package within the Back Creek Group sediments in the survey area diminishes the effectiveness of the EM survey somewhat, making it difficult to recognize discrete, conductive massive-sulphide mineralization type responses away from the main intrusive-sediment contact.

Ground follow up of the higher priority EM targets is recommended prior to possible drill testing. This could include ground EM and or IP surveys to better define and assess the more prospective EM and magnetics targets. Shallow / moderate depth drilling may also be a cost-effective initial evaluation procedure.

The magnetic patterns indicate the likely presence of a complex intrusive history within the Bundarra Intrusive Complex. They also indicate that the intrusive-alteration system is significantly more extensive than shown by the existing mapping, with substantial intrusives likely to be commonly present below the Back Creek Group for up to 2km or more from the mapped sediment-intrusive contact. This raises the possibility of buried porphyry style mineralization below parts of the Back Creek Group.

The exploration significance (if any) of the compositional variations indicated by the magnetics and radiometrics within the Bundarra Complex and surrounds warrants further investigation, if not adequately addressed by previous geological-petrological studies. The potential for large, low grade, bulk tonnage porphyry copper-gold mineralization within the Bundarra Complex should be checked. This may have been adequately addressed by previous explorers in the well exposed areas but the potential beneath the Back Creek Group has probably not been seriously investigated.

1 INTRODUCTION

1.1 Background

Regency Mines has commissioned the processing and interpretation of the 2011 Bundarra airborne EM-magnetics (VTEM) survey over their Bundarra project. The project ([Figure 1](#)) lies approximately 140km southwest of Mackay in central eastern Queensland. Access from Mackay is via the Peak Downs Highway via Nebo, then the Fitzroy Developmental Road to the project area. The Fitzroy Developmental Road traverses the project area, with station tracks providing local access. A rail line between the Bowen Basin coalfield and the coast passes less than 10km to the north of the tenement.

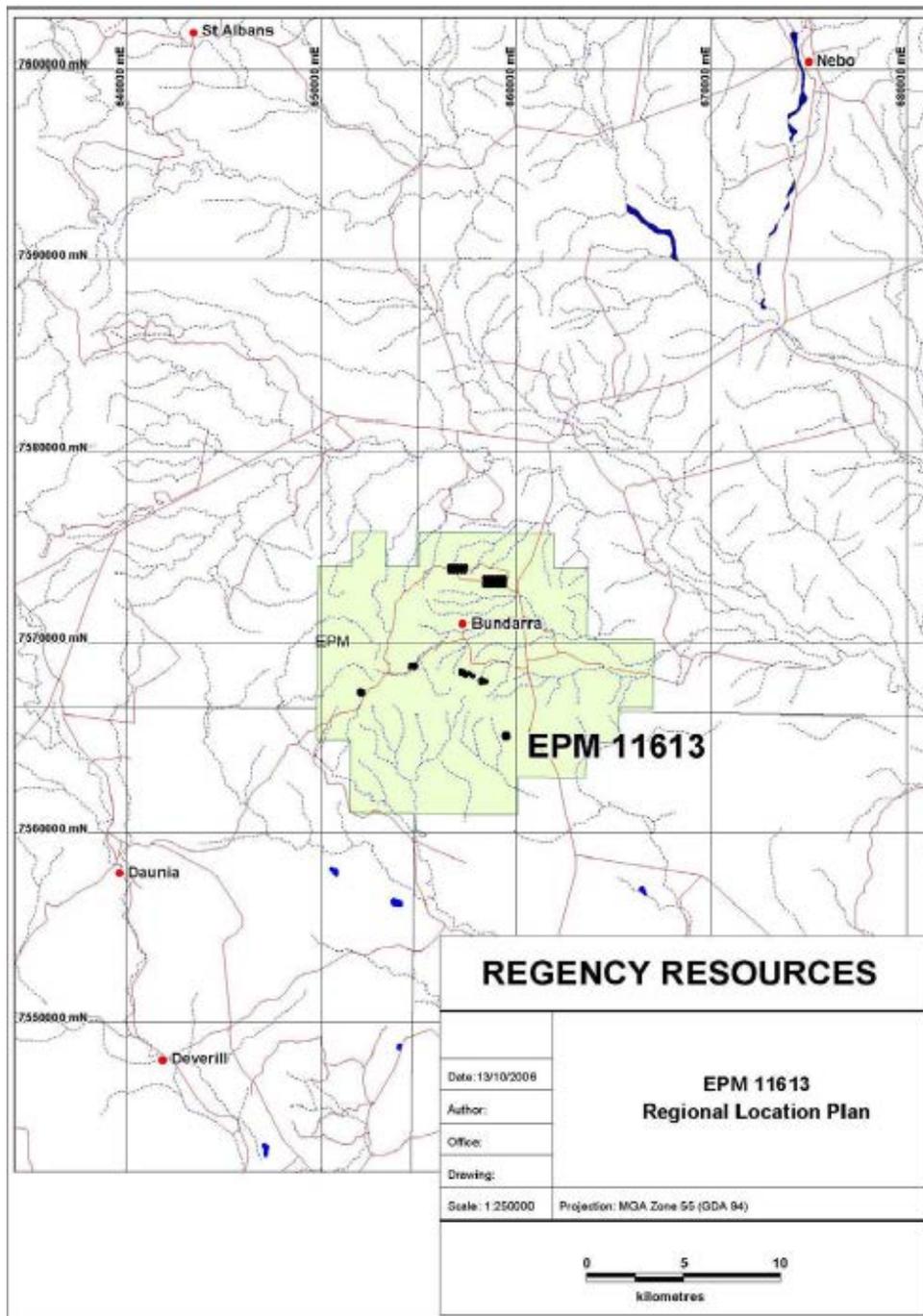


Figure 1: Bundarra project location plan (after Kastellorizos, 2006)

The project area covers an area of approximately 200 km² and straddles the boundary of four 1:250,000 map sheets; Mt Coolon (SF55-07), Mackay (SF55-08), Clermont (SF55-11) and St Lawrence (SF55-12).

1.2 Previous Work

Kastellorizos (2006) has summarized the general geology (see Section 2) and previous exploration and mining activity work at Bundarra. The Bundarra field encompasses numerous copper occurrences and historic mines. Copper ore was extracted from small scale, high grade lodes from the late 1800's till 1918, with 24 significant producers recorded during the main mining and smelting period. Modern exploration has been carried out sporadically from the early 1960s to the present. This has outlined further areas of mineralisation and confirmed the area's potential to host multiple styles of copper-gold mineralisation, including high grade veins, breccia systems and larger scale, low grade stockwork systems. Regency consider that the project may also be prospective for IOCG type copper- gold systems.

2 GEOLOGICAL SETTING

The Bundarra Mineral Field occurs within the Lower Permian to Triassic Bowen Basin, west of the South Connor's Arch. Copper mineralisation is centred on and around the margins of the Early Cretaceous Bundarra Igneous Complex, which intrudes the Lower Permian Back Creek Group sedimentary sequence (including carbonaceous shales, sandstones and marls). Available mapping indicated that the complex occurs near the intersection of two large regional linear trends; i.e. the east-north-easterly Marion Creek trend and a north-westerly to south-easterly trending line of plutons extending from Collinsville to Mt Flora.

Compositions within the intrusive complex reportedly include granodiorite, quartz monzodiorite, quartz diorite, adamellite, quartz monzonite, tonalite and syenite. The poorly exposed, roughly elliptical complex is surrounded by a ring of hills of metamorphosed Back Creek Group sediments. The presence of numerous porphyries, breccia pipes and occasionally pebble dykes support the high level nature of the Bundarra complex.

Published mapping shows that the Back Creek Group sequence has been domed during emplacement of the Bundarra complex, with the intrusive-sediment contacts (where exposed) dipping outwards at between 20 to 50 degrees. The contact metamorphic aureole reportedly extends up to 800 metres into the Back Creek Group. Numerous small outcrops of intrusives have been mapped within the Back Creek Group to the west and southwest of the main intrusive complex.

The bulk of the known copper and gold-copper-silver mineralisation found to date within the Bundarra Mineral Field occurs within 500 metres of the sediment-intrusive contact, with old workings occurring both within the complex and in the surrounding Back Creek Group metasediments.

The GSWA published 1:250000 scale mapping was used as basic geological control for the magnetics interpretation. A scan of an old MIM geology map of the core project area (including locations of the historic workings) supplied by Regency also provided useful background for the interpretation.

3 SURVEY DETAILS

The Bundarra VTEM survey was flown during September and October, 2011. Acquisition commenced on September 23rd and concluded on October 4th. The survey was flown as a series of blocks with flight line directions oriented approximately normal to the contact between the intrusive complex and the sediments (**Figure 2**). dB/dt data was collected using the VTEM system working at a base frequency of 25 Hz. B-Field data was calculated from the dB/dt data. Total field magnetic data was collected in conjunction with the EM data.

The VTEM system is a symmetric, in-loop airborne transient electromagnetic (TEM) system with concentric receiver / transmitter geometry, utilising a trapezoidal waveform. The system is powered by a ~25m diameter, four-turn transmitter loop with a maximum current of ~240A, providing a peak dipole moment of ~400,000 NIA.

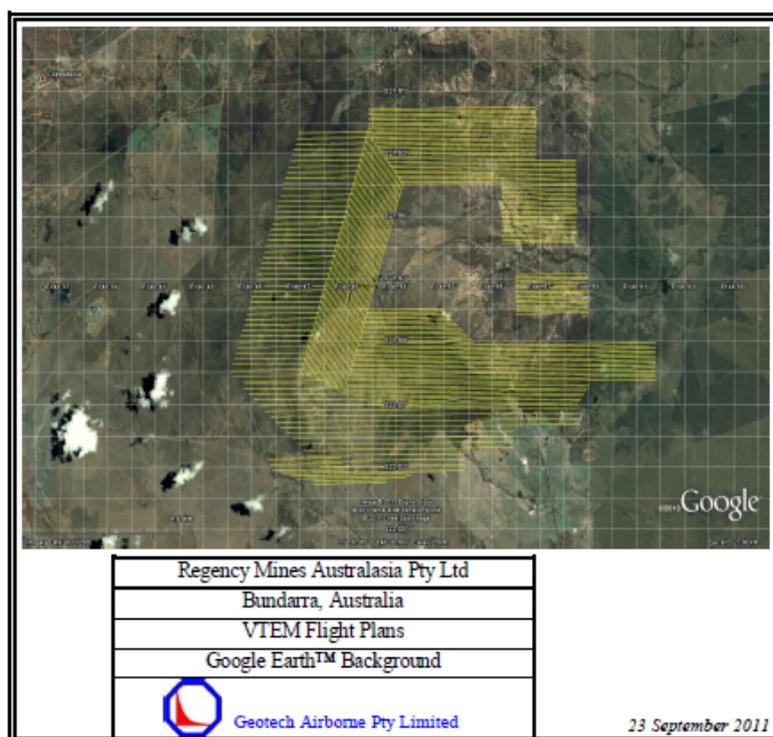


Figure 2: Bundarra VTEM survey location and flight lines summary (After Geotech Airborne, 2011)

Survey specifications are summarised below in **Table 1**. Survey and equipment details can be found in the contractor supplied logistics report (Geotech Airborne, 2011).

Table 1. Bundarra VTEM Survey Specifications

Survey Name	Bundarra
Contractor	Geotech Airborne Limited
Survey Year	2011
Job Number	AA1053
Methods	VTEM
Flight Line Spacing	200 m / 100m
Flight Line Direction	090-270 degrees (Blocks 1, 3, 4 & 5), 019-199 degrees (Block 2)
Line km Surveyed	1111.6
Mean Terrain Clearance	48 m

4 DATA QC AND PROCESSING

4.1 EM (VTEM) Processing

Routine processing of the EM data was completed by SGC in the later part of 2013. Products generated include:

- Flight Path and outline at 1:25,000 scale in MapInfo format
- Imagery of selected VTEM time channels (dB/dt and B-Field) and conductivity depth transformation (CDI) channels in GeoTiff and ECW format
- Imagery of selected magnetic enhancements in GeoTiff and ECW format
- Imagery of surface elevation (DEM) in Geotiff and ECW format
- Contours of dB/dt and B-Field data (every 5th Channel) at 1:25,000 scale in MapInfo format
- Stacked profiles of the EM data (dB/dt and B-Field) at two different vertical scales in MapInfo format
- Multi-profile plots of the EM data including CDI sections in PDF format ([Appendix 1](#))

4.2 Magnetics-Radiometrics Processing

The magnetics collected during the VTEM survey were tidied up and merged with the available public domain aeromagnetics for the greater Bundarra region. The relevant open file and Government survey data were moderate to low resolution (200m to 500m flight line spacing) but provided reasonable background and infill coverage to the 100m to 200m line spaced VTEM magnetics. Merging of the VTEM and public domain datasets posed some problems, mostly related to the complex flight line patterns and terrain clearance variations.

Radiometrics from the public domain data were also processed to provide additional information on alteration patterns and compositional variations within the exposed parts of the Bundarra complex and surrounds.

Processing products generated by SGC include:

- Suite of magnetic, radiometric and digital terrain images, including various enhancements, illuminations and combinations of TMI, 1VD, DEM, TC, K, U and Th, with all images being supplied as GIS compatible geotiffs and ECW files.
- Digital contours of selected parameters in GIS compatible format.

The use of these enhancements, in combination with the contours, is designed to facilitate the recognition of the various important, often subtle, magnetic features and to accurately display the dynamic range present in the magnetic data. The resulting suites of images and contours have been supplied to Regency.

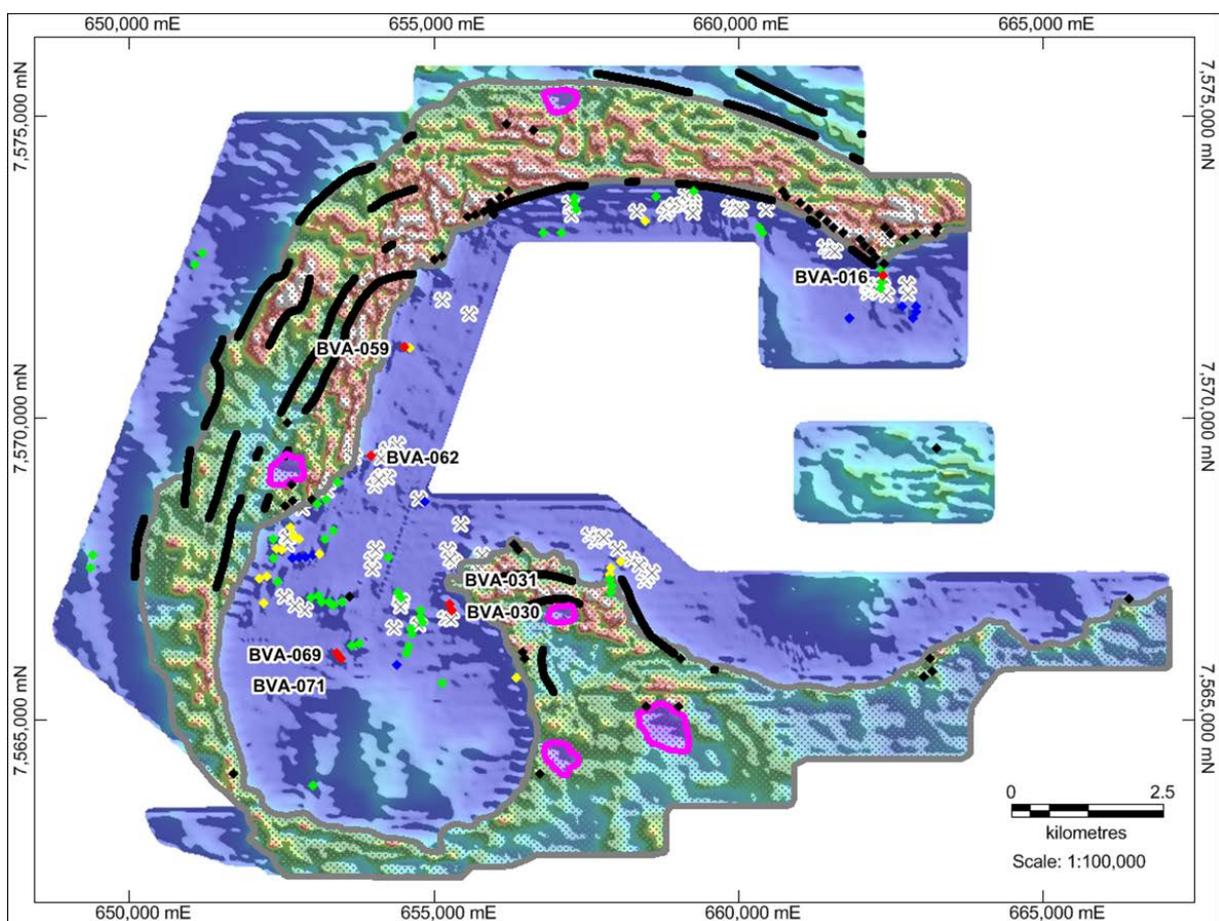
To assist with the interpretation, several 1:25,000 scale hardcopy image-contour maps were generated from the digital images and contours. [Plates 1](#) and [2](#) are examples of magnetic image-contour maps. During the interpretation process, these hardcopy image maps were supplemented with various aeromagnetic and radiometric raster images and contours on-screen, as necessary.

5 RESULTS AND INTERPRETATION

5.1 EM (VTEM) Interpretation

The EM interpretation involved analysis of the electromagnetic data profiles on a line-by-line basis, incorporating ancillary datasets such as magnetics and elevation imagery, flight path, conductivity depth (CDI) images and the VTEM power line monitor. The various processing and interpretation products have been supplied in GIS format.

Common features identified in EM data include stratigraphic or formational conductors, overburden (weathering ± regolith) effects, discrete bedrock conductors, ground polarisation (negative amplitude in dB/dt or B-Field data), superparamagnetic (SPM) effects, and possible / likely cultural sources. These are summarized in [Figure 3](#) and selectively shown on [Plate 3](#).



LEGEND

- | | | | |
|---|--|---|--|
| ◆ | High priority VTEM anomaly | ▨ | Interpreted outline of conductive black shale |
| ◆ | Moderate Priority VTEM anomaly | ▨ | Discrete Resistive Zone - Possible localised intrusive / silicic alteration? |
| ◆ | Low priority VTEM anomaly | — | Conductive shale trend line |
| ◆ | Narrow (<100m wavelength) VTEM anomaly. Cultural source. | × | Historic Workings |
| ◆ | Strong VTEM response interpreted as black shale | | |

Figure 3. Bundarra VTEM interpretation summary, with historical workings over dB/dt Channel 30 image.

The EM data clearly delineate a resistive zone in the centre of the survey with a surrounding conductive halo. The margins of the resistive zone match up well with the mapped extents of the intrusive complex. The conductive halo is probably related to carbonaceous (graphitic) shale horizons within the Back Creek Group sequence. Discrete bedrock conductors of possible exploration interest lying within this major conductive unit are likely to be completely obscured.

The contact metamorphism around the intrusive may well have enhanced the conductivity of the carbonaceous shales, with the response appearing to be stronger closer to the sub-cropping sediment-intrusive contact. Several localised zones of higher resistivity within the conductive shale unit are interpreted as possible sub-cropping intrusives and or alteration (e.g. silicification), psammitic sediments or may simply reflect variations within the Cainozoic regolith.

The known mineralization and historical workings are concentrated around the better exposed sections of the margin of the intrusive complex, with significant copper and or gold mineralisation indicated on the northern side. No direct or definite link has been established between the VTEM anomalies and the known mineralisation. However, many of the anomalies seem to cluster in the general vicinity of the historic workings.

A total of 133 VTEM anomalies have been identified. Of these, seven are (geophysically) rated high priority and 15 are moderate priority ([Table 2](#)). The remaining anomalies are lower priority, mostly interpreted as being related to conductive sediments, cultural sources or broad, weak (regolith?) sources that are considered unlikely to be of exploration interest. The high priority anomalies are generally those with wavelengths in the order of 200m with profile shapes consistent with shallow to moderate depth bedrock conductors.

No quantitative modelling of the higher priority anomalies has been attempted. The profile shapes are generally consistent with wider (breccia pipes?) or flatter dipping sources rather than the classic, simple, moderately to steeply dipping, sheet-like conductors.

5.2 Magnetism - Radiometrics Interpretation

The litho-structural interpretation ([Plate 3](#)) focussed primarily on the merged VTEM and public domain magnetism dataset and images, with minor input from the radiometrics data. The interpretation methodology involved the manual delineation of mappable magnetic units, contacts and structures (e.g. inferred folds, faults etc.) within the Mesozoic-Upper Palaeozoic basement, with generally minor emphasis on variations within the regolith. These basement features were primarily inferred from scaled (1:25,000) image-contour maps. These features were then cross-referenced with the published regional geological mapping and the old MIM project scale mapping. Correlation between the magnetism and the mapped geology is variable, but generally mediocre.

5.2.1 Magnetism Character

The range of magnetic intensity responses across the survey area is about 700-1000nT; i.e. this is a moderate contrast dataset. The bulk of the magnetic material is related to the outcropping to sub cropping Bundarra Intrusive Complex, with the (unaltered) Back Creek Group country rock assumed to be essentially non-magnetic. However, substantial magnetic units are present external to the mapped Bundarra Complex - Back Creek Group contact. These units tend to be distributed and or elongated sub-parallel to the intrusive-sediment contact. They may represent either significant but selective magnetite alteration within the contact metamorphosed Back Creek Group sediments or predominantly blind, outer phases of the Bundarra Complex, or a combination of both. The alternatives cannot be resolved with the available geological control.

Magnetic patterns and response levels within the intrusive complex are quite varied and consistent with multiple phase intrusions with subtly different composition / magnetite contents. Variants include:

- Non or very weakly magnetic 'core' phases within ovoid, layered or zoned intrusives in the south-western and eastern to north-eastern parts of the complex. These may be relatively late stage intrusives.
- A moderately magnetic, irregular textured phase (early stage?) that dominates the north-western quadrant of the complex.
- Arcuate, often elongate, moderately to strongly magnetic units that are typically marginal phases of the main complex. These may be outer, magnetite bearing ring dyke type phases of the complex. Alternatively they may represent relict altered, variably assimilated phases of the Back Creek Group sediments.
- Similar arcuate magnetic units within predominantly Back Creek Group sediments. These also may represent outer, mostly hidden phases of the intrusive complex or altered Back Creek Group.
- Smaller scale, strongly magnetic pipe like features, mostly located external or peripheral to the main complex. These may represent possible discrete intrusives, breccia pipes or alteration zones (skarns?).
- Occasional possibly reversely magnetized, small to moderate scale (late?) intrusives or alteration zones. These are also mostly located external or peripheral to the main complex.
- Linear, elongate, northerly to north-north-westerly trending dykes cutting the main complex and extending into the Back Creek Group. These are predominantly normally magnetized with occasional apparently reversely magnetized members. This dyke suite is assumed to be late. MIM's mapping indicates that some of the late dykes are quartz porphyry or quartz feldspar porphyry rocks.

Correlation between these geophysically defined variations and those shown in the old MIM mapping is poor. Their relationship and significance to the known mineralization is unclear. The magnetics suggest significantly more compositional variations within the intrusive complex than shown on the available mapping.

5.2.2 Radiometrics

The relatively low resolution radiometrics has not been interpreted in detail. This dataset also maps some compositional variations within the complex and perhaps some localized potassic alteration. Some of the larger scale internal variations reflect outcrop / regolith distributions. The potassium response from the bulk of the outcropping parts of the intrusives are quite subdued, consistent with the predominantly granodioritic composition.

A large, strong potassium channel response forms an annulus around the mapped intrusive-sediment contact. This zone is not particularly well constrained, reflecting in part the mediocre resolution of the data and some interference and migration in the regolith profile. The potassic zone straddles the intrusive-sediment contact, with the greater proportion within the sediments. The source of the unit is not evident in the available mapping. It could indicate large scale potassic alteration around the margins of the intrusive complex. Alternatively, it could be mapping a potassium rich unit within the

sediments; e.g. a feldspathic (arkosic) sandstone. Whatever the cause, the majority of the known copper-gold vein-lode systems are within or adjacent to the zone of elevated potassium content.

5.2.3 Structure

A number of moderate to large scale faults and fracture zones (along with numerous small scale ones) have been inferred from the magnetics. The dominant fault set trends north-north-westerly, parallel to the regional structure. A large scale fault zone belonging to this suite has been interpreted immediately to the east of the main intrusive complex. The majority of the dykes within the Back Creek Group sediments have been emplaced along this north-north-westerly trend.

Other prominent interpreted fault trends are east-north-easterly (Marion Creek trend) and north-westerly. The relationships between and timing of the various fault sets is not clear.

The majority of the smaller scale, vein-lode mineralized systems are probably strongly fault-fracture controlled at local, prospect scale. However, no clear or consistent relationship between the interpreted larger faults and the known mineralization has been recognized at the 1:25,000 interpretation scale. Proximity to the intrusive-sediment contact seems to be the dominant overall mineralization control. Further analysis of the structural controls on the mineralization is warranted.

6 MINERALIZATION AND TARGET AREAS

6.1 EM Targets

The locations of the 22 high and moderate priority EM anomalies identified from the VTEM data are shown on [Plate 3](#) and summarized in [Table 2](#). The majority of these are concentrated in the south-western section of the intrusive complex and about the western and northern sections of the intrusive-sediment contact. These EM anomalies likely represent small to moderate scale bedrock conductors of the type expected from the known Bundarra lode-vein style copper-gold mineralization. A significant proportion of the higher priority EM anomalies are near historic copper-gold shows and workings.

The remainder of the lower priority EM anomalies are considered less likely to be mineralization related.

Follow up of the EM targets should include field inspection checking (including mapping where possible) and appropriate geochemical sampling. In some cases, ground EM and or IP surveys may be helpful to accurately define and characterize the various anomalies. However, carefully designed fences or grids of shallow to moderate depth drill holes designed to test the EM anomalies may be the most effective means of evaluating their exploration significance.

Table 2: Summary of first and second priority VTEM anomalies.

Name	North MGA55	East MGA55	Line Number	Ranking	Comment	Dip
BVA-016	7572359	662370	10150	1	Strong mid time single peak anomaly. ~200m wavelength. Weak response on adjacent lines. Proximal to historical workings.	Shallow
BVA-030	7566830	655288	30170	1	Very strong mid to late time single peak anomaly. ~300m wavelength. Could be black shale? Proximal to historical workings.	Shallow
BVA-031	7566924	655254	30180	1	Very strong mid to late time single peak anomaly. ~300m wavelength. Could be black shale? Proximal to historical workings.	Shallow
BVA-059	7571180	654508	20110	1	Moderate mid to late time single peak anomaly. ~300m wavelength. Weaker response on adjacent lines.	Shallow east.
BVA-062	7569377	653959	20120	1	Moderate mid time single peak anomaly. ~300m wavelength. Proximal to historical workings.	Shallow west
BVA-069	7566112	653400	20170	1	Moderate mid time single peak anomaly. ~200m wavelength. Cultural? Near track.	Shallow
BVA-071	7566040	653480	20180	1	Moderate mid time single peak anomaly. ~150m wavelength	Shallow west
BVA-023	7567360	652128	20010	2	Moderate mid time single peak anomaly. ~150m wavelength. Possible black shale?	Shallow

BVA-024	7567390	652256	20020	2	Moderate mid time single peak anomaly. ~150m wavelength. Possible black shale?	Shallow
BVA-025	7567826	652506	20030	2	Moderate mid to late time single peak anomaly. ~150m wavelength. Proximal to historical workings.	Shallow
BVA-026	7568052	652693	20040	2	Strong mid to late time single peak anomaly. ~250m wavelength. Possible black shale? Proximal to historical workings.	Shallow
BVA-029	7565720	656350	30060	2	Very strong mid to late time single peak anomaly. ~100m wavelength. On margin of black shale.	Shallow
BVA-033	7567631	658063	30250	2	Moderate to strong mid to late time single peak anomaly. ~200m wavelength. Possible black shale? Proximal to historical workings.	Shallow
BVA-052	7567850	652416	20020	2	Moderate mid time single peak anomaly. ~150m wavelength. Proximal to historical workings.	Shallow
BVA-053	7568197	652635	20030	2	Strong mid to late time anomaly. ~250m wavelength. Proximal to historical workings.	Shallow
BVA-054	7566943	652208	20030	2	Weak early to mid-time single peak anomaly. ~300m wavelength	Shallow
BVA-055	7568009	652780	20050	2	Moderate mid to late time single peak anomaly. ~300m wavelength. Proximal to historical workings.	Shallow
BVA-083	7567430	657893	30230	2	Strong early to mid-time single peak anomaly. ~200m wavelength. Possible black shale?	
BVA-090	7567758	653120	20090	2	Moderate early to mid-time single peak anomaly. Cultural? Near road.	Shallow
BVA-097	7567524	657906	30240	2	Moderate early to late time single peak anomaly. IP effects at late time. ~200m wavelength. Possible black shale?	
BVA-105	7573267	658474	10240	2	Weak mid time single peak anomaly. ~400m wavelength. Possibly cultural?	Shallow
BVA-116	7571169	654600	20120	2	Moderate mid to late time single peak anomaly. ~400m wavelength.	Shallow east

6.2 Magnetics + EM Targets

A suite of targets selected primarily from the magnetics data and interpretation are shown on [Plate 3](#) and summarized in [Table 3](#). These have been identified using a number of criteria, including:

- Discrete zones of strong or locally anomalous magnetic response (**BM1-BM6**). These may represent zones of magnetite alteration (including skarns) or unusual, small scale, possibly late stage intrusives that may be mineralized.

- Localized zones of low or diminished magnetic response (**BA1-BA4**). These are interpreted as possible demagnetized alteration zones or late stage, porphyry style intrusives, again potentially mineralized.
- Lithological and structural situations (including intersections) that may have significant mineralization potential (**B1-B22**). Proximity to historic workings and or significant EM anomalism has been incorporated into the target selection and prioritization process.

Initial field checking and follow up procedures should be similar to those recommended for the EM target checking.

Table 3: Summary of targets from aeromagnetism interpretation and selected VTEM anomalies

Target ID	Northing MGA Z55	Easting MGA Z55	Priority	Description
B1	7571232	654582	1	Fault intersection zone near margin of the outcropping Bundarra complex and the BA3 alteration / intrusive zone. Includes VTEM anomalies 179 and 236 .
B2	7569362	653975	2	Faulted western margin of the Bundarra complex and the BA3 alteration / intrusive zone. Includes VTEM conductor 182 . Numerous old workings in the vicinity.
B3	7568709	653181	2	~NE trending group of VTEM anomalies (176, 233, 234, 235) linking ENE and NW trending interpreted faults. Within Back Creek Group sediments near western margin of the Bundarra complex. Includes some old workings.
B4	7567960	652568	1	Group of VTEM anomalies (138, 139, 172, 173, 175, 231) and old workings along NE striking magnetic unit / phase near western margin of the Bundarra complex. Adjacent to large ENE trending fault. Includes some old workings.
B5	7568068	653286	2	VTEM anomalies 213 & 211 along NE striking magnetic unit / phase within the Bundarra complex. Adjacent to NW trending fault.
B6	7567712	652858	2	~Easterly trending group of VTEM anomalies (140, 141, 177, 209, 210) crossing NE striking magnetic unit / phase within the Bundarra complex.
B7	7567146	652174	3?	VTEM anomalies 134, 137 within / near NE striking magnetic unit / phase within the Bundarra complex. Partially tested by Regency drilling.
B8	7566967	653365	3	~Easterly trending group of VTEM anomalies (181, 184, 186, 214) along ENE striking fault within the Bundarra complex.
B9	7567026	654442	2	Old workings and VTEM anomalies 247 & 248 adjacent to a major, ESE striking fault
B10	7566102	653434	1	High priority VTEM anomalies 189 and 191 within south-western Bundarra complex
B11	7566385	654603	2	~NNE trending zone of VTEM anomalies (196, 240-246) converging with major ENE striking fault within south western Bundarra complex.
B12	7566768	655285	1	High priority VTEM anomalies 143 and 144 at faulted contact of strongly magnetic intrusive / alteration phase at

				the margin of the Bundarra complex. Major fault intersection zone. Old workings present.
B13	7565880	656317	1 \ 2	Similar to B12 . VTEM anomalies 197 and 200 along large ESE striking fault.
B14	7567382	657951	2	~Northerly trending group of VTEM anomalies (146, 201-203, 217, 218) crossing magnetic unit / sill within Back Creek Group sediments. Old workings and Regency drilling at northern end of group.
B15	7571794	662876	3?	~Northerly trending group of VTEM anomalies (123, 125, 126) crossing magnetic phase near northern margin of the Bundarra complex.
B16	7572391	662420	2	~Northerly trending group of VTEM anomalies (121, 122, 128, 219, 220) + old workings within magnetic phase near northern margin of the Bundarra complex. Sub parallel to northerly striking fault.
B17	7573537	660278	1 \ 2	Large, northerly trending fault passing through the northern margin of the exposed Bundarra complex. Includes VTEM anomalies 223 and 224 . Old workings nearby. Extends to BA1 .
B18	7573310	658481	3?	VTEM anomaly 225 within /near northerly striking fault /dyke corridor cutting the northern margin of the exposed Bundarra complex. May have been effectively tested by Regency drilling?
B19	7573494	657352	2	VTEM anomalies 226-228 within /near northerly striking fault-fracture zone near the northern margin of the exposed Bundarra complex. Old workings nearby. South of Regency drilling.
B20	7573541	655890	3?	~NE trending group of VTEM anomalies (156, 159, 160, 162, 166, 185, 187) near north-western margin of the complex. Possible demagnetization (alteration) zone. EM anomalies may be from carbonaceous sediments. No associated old workings.
B21	7572670	655053	2?	VTEM anomalies 180, 183 within magnetic phase ± alteration near NW edge of the exposed Bundarra complex. No associated old workings.
B22	7569515	663234	1?	Isolated VTEM anomaly 148 immediately north of the BM2 intrusive / alteration target.
BA1	7574563	659931	1 \ 2	Possible blind (?) alteration (demagnetization) zone or late intrusive at intersection of major north-westerly fault and blind, magnetic outer phase of the Bundarra Complex within the Back Creek Group.
BA2	7574923	657078	2	Possible blind (?) alteration (demagnetization) zone or late intrusive at intersection of major north-westerly fault and blind, magnetic outer phase of the Bundarra Complex within the Back Creek Group.
BA3	7570870	653522	3?	Possible late (?) intrusive-alteration complex in the outer north-western section of the Bundarra Complex. Within / beneath Back Creek Group sediments.

BA4	7572216	663210	2	Possible small alteration (demagnetization) zone at intersection of north-westerly fault and outer (sub cropping) margin of the Bundarra Complex.
BM1	7568043	656455	1	Possible magnetic alteration (skarn?) or localized intrusive near faulted nose of folded magnetic unit or sill within the Back Creek Group. See also VTEM anomalies 204 & 205 .
BM2	7569110	663020	1 \ 2	Possible magnetic intrusive or large alteration (skarn?) zone in core of ovoid intrusive or relict fold within the eastern Bundarra intrusive complex. See also VTEM anomaly 148 and B22 target.
BM3	7566574	666382	2	Unusual, remanently magnetized possible late stage intrusive of alteration zone adjacent to large scale fault zones. SE margin of the Bundarra intrusive complex.
BM4	7563556	658310	2	Possible localized magnetic alteration (skarn) or intrusive along / adjacent to magnetic unit or sill within the Back Creek Group near the southern margin of the Bundarra complex.
BM5	7565442	658885	1 \ 2	Possible magnetic alteration (skarn?) or localized intrusive within faulted / altered magnetic unit or sill within the Back Creek Group. See also BM1 .
BM6	7564091	661193	2	Possible late (?) intrusive-alteration complex in the outer north-western section of the Bundarra Complex. Within / beneath Back Creek Group sediments.

7 CONCLUSIONS AND RECOMMENDATIONS

The EM data from Regency's 2011 Bundarra VTEM survey is of good quality and should provide an effective means of identifying significant conductors that may be related to copper-gold sulphide lode, vein and breccia systems similar to those that were historically exploited at Bundarra. The survey should have been quite effective over the intrusive complex and most of the intrusive-sediment contact. The presence of a conductive shale package within the Back Creek Group sediments about 500-1000m out from the intrusive-sediment contact diminishes the survey's interpretability and reliability somewhat, particularly where the shales encroach on the prospective sediment intrusive contact zone. It is difficult to recognize discrete, sulphide related conductors within this variably, often strongly conductive stratigraphic unit. It is not clear whether the strong EM response from the shales is the result of alteration (hornfelsing) related to the felsic intrusive or is of primary, genetic origins.

Field checking and follow up of the higher priority EM targets is recommended to help further prioritize these for possible drill testing. Ground EM and or IP surveys may be helpful / desirable to better define and assess some of the EM and magnetics targets. Carefully designed fences or grids of shallow to moderate depth drill holes may also be a cost-effective means of evaluating their exploration significance before deeper drilling is contemplated.

The merged aeromagnetics dataset is consistent with a multi-phase, variable composition intrusive history within the Bundarra Intrusive Complex. The data also indicates that the complex and or the associated alteration halo are significantly more extensive than suggested by the mapped intrusive-Back Creek Group contact. Intrusives, including large ring-dyke like phases, are likely to be relatively common at depth within the Back Creek Group for up to 2km or more beyond the mapped or interpreted intrusive-sediment contact. This raises the possibility of buried porphyry style mineralization below parts of the Back Creek Group.

The significance of the magnetic / compositional variations within the main (exposed) Bundarra Complex warrant further investigation. This may have been adequately addressed by previous geological evaluations of the complex (e.g. work reportedly undertaken by Terrasearch). Similarly the source and significance of the large potassic zone around the margin of the intrusive complex also warrants investigation and clarification.

It is unclear how well previous explorers have evaluated the potential for large, bulk tonnage type porphyry copper-gold mineralization within the Bundarra Complex. This should be checked. Some IP surveying to help map sulphide distribution within more prospective porphyry situations may be appropriate as part of this checking. The carbonaceous sediments within the Back Creek Group are likely to cause complications for any IP surveying.

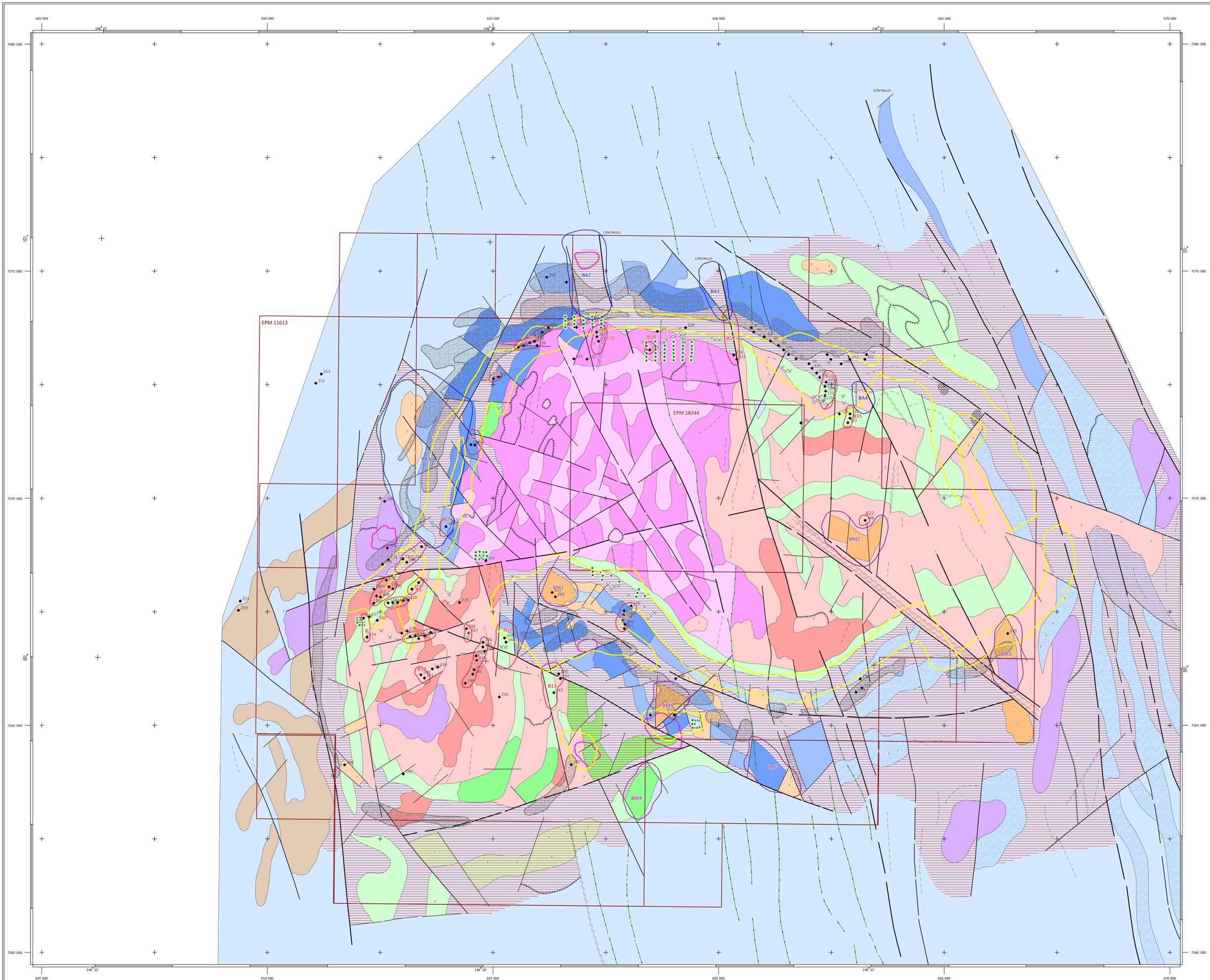
8 REFERENCES

Geotech Airborne Pty. Ltd., 2011. Survey and Logistics Report on a Helicopter Borne Versatile Time Domain (VTEM) Survey on the Bundarra Project Area (project AA 1053). Geotech Airborne Report Prepared for Regency Mines Australasia Pty. Ltd.

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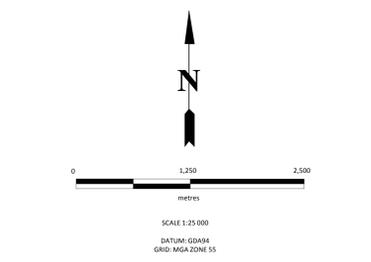
APPENDIX A:
MULTI-PROFILE PLOTS OF THE BUNDARRA EM DATA
INCLUDING CDI SECTIONS

PLANS



- VTEM ANOMALIES**
- High priority VTEM anomaly
 - Moderate Priority VTEM anomaly
 - Low priority VTEM anomaly
 - Narrow (<100m wavelength) VTEM anomaly. Cultural noise
 - Strong VTEM response interpreted as black shale
 - Discrete Resistive Zone - Possible localised intrusive / silicic alteration?
 - Drill collar
 - Historic Workings

- TARGETS**
- B1 Structural-geological & EM target
 - BM1 Discrete magnetic intrusive or alteration target
 - BA1 Discrete non-magnetic intrusive or alteration (demagnetization?) target



SOUTHERN GEOSCIENCE
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BUNDARRA PROJECT
AEROMAGNETICS & EM INTERPRETATION

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