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EL 3164 / 4233

MONGOLATA

THIRD PARTIAL SURRENDER REPORT FOR THE PERIOD 13/2/2004 TO 9/3/2014

Submitted by
Marathon Resources Ltd, Phoenix Copper Limited and Australian Field Services Pty Ltd
2014

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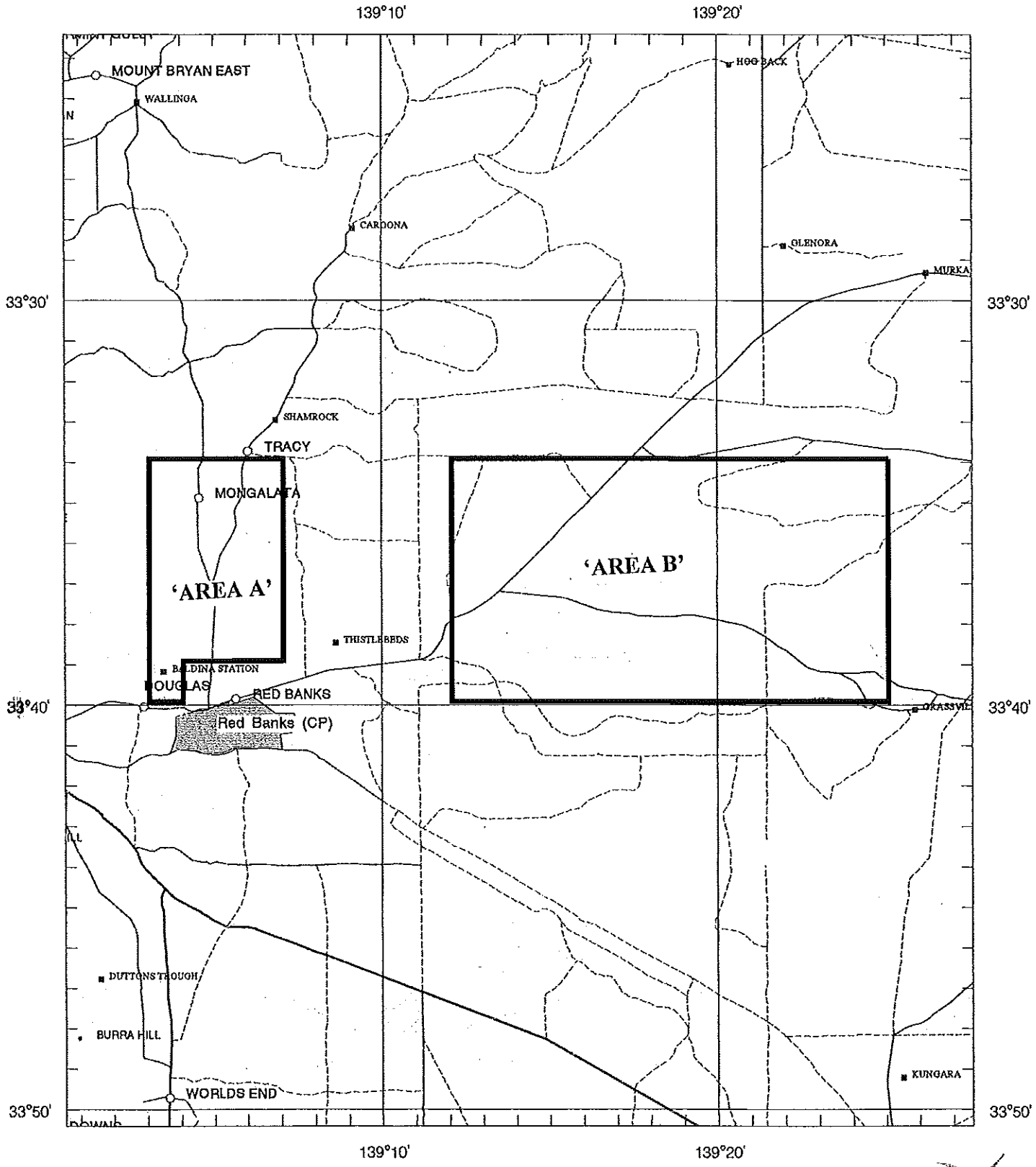
Government of South Australia
Department of State Development

SCHEDULE A



SCALE 1: 250 000

KILOMETRES 5 0 5 10 15 20 25 KILOMETRES

APPLICATION LODGED IN : DATUM AGD66

APPLICANT : **PHOENIX COPPER LIMITED**

FILE REF : **451/08** TYPE : **MINERAL ONLY** AREA : **283** km² (approx.)

1:250000 MAPSHEETS : **BURRA**

LOCALITY : **MONGALATA AREA - Approximately 15 km northeast of Burra**

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Mongolata EL 4233 (old EL 3164) EXPLORATION LICENCE

Partial Relinquishment Report

For the Period 12 February 2008 to 9 March 2014

Nicole Galloway Warland
Phoenix Copper Limited
Adelaide
September 2014

Table of Contents

FIGURES

TABLES

APPENDICES

ATTACHMENTS

S U M M A R Y

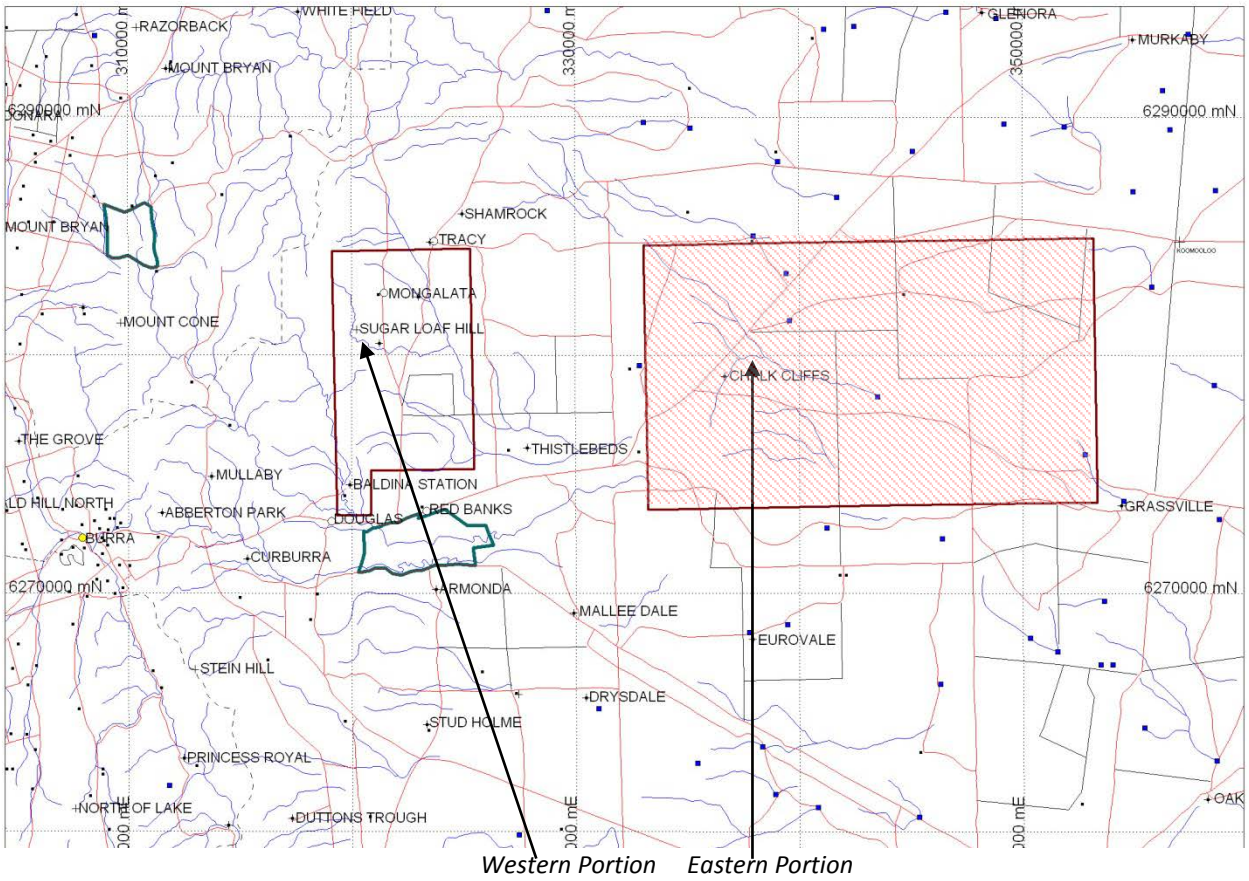

Figure 1: EL 4233 Mongolata Tenement Location Plan (Eastern portion being relinquished in red).

Keywords
Mongolata
Cambrian, Ordovician
siltstones, carbonates, glacial tillites, sandstones, microgranite, lithic breccia
fault, fold, diapiric breccia, diapir margin, anticlinal cores
copper, malachite, azurite, sulphides, chalcocite, hematite, sericite
porphyry, skarn, structurally controlled ores, hydrothermal alteration
Adelaide Geosyncline, Tarnma inlier,
Delamerian Orogeny
Burra Group, Rhynie Sandstone, Skillogalee Dolomite

Map Sheets
1:100,000 map sheet Florieton 6730
1:250,000 map sheet Burra SI 54-5

1. INTRODUCTION

This Partial Relinquishment Report summarises all exploration activities undertaken by Phoenix Copper during the tenement term of 12 February 2008 (EL 3164) to 09 March 2014 on the Eastern portion of EL 4233; "*Mongolata",* being relinquished (See Figure 1).

2. TENURE

EL No	EL Name	Registered Holder	Area (sq km)	Application Grant Date	Expiry Date	Renewal Date and Action Taken	Area Relinquished (sq km)	Area Retained (sq km)
5411	Mongolata	Phoenix Copper Limited	60	6/11/2007	9/03/ 2016	9 /3 /2014 Part Relinquished	213	129

Table 1: Tenement Details

3. NATIVE TITLE

On the 21st of November 2011 the Ngadjuri Nation #2 applied to the Federal Court of Australia to recognise a native title covering an area of 26,200 square kilometres, about 35 km north of Adelaide. The proposed claim area covers nearby tenements but is not applicable to EL 4233.

4. GEOLOGY

4.1 Geology

The Mongolata property is located east of Burra and stretches from the hills formed by the Adelaidean Umberatana Group sediments out onto the flats of marginal Murray Basin sediments.

During the Neoproterozoic in the Adelaide Geosyncline, deposition commenced with the sediments of the Warrina Supergroup (Callanna and Burra Groups)**,** deposited largely in rift basins and including some mafic volcanic rocks and evaporitic sediments in the lower part. These were followed by sandstone and carbonate rocks, deposited by rivers and along coastal regions, and siltstone, resulting from invasion by the sea.

After a pause, sedimentation resumed with the Heysen Supergroup (Umberatana and Wilpena Groups), which commenced with sediments deposited during a world-wide glacial episode; some of these contain cobbles and huge boulders of rocks such as granite and volcanic rock which must have been carried by glaciers from hundreds of kilometres away.

After the glaciers melted, the sea again invaded the basin and deposited siltstone and carbonate rocks in shallow to deep water before a second glacial period ensued.

Pre-Tertiary sequences in the area trend in a north south direction and consist of rocks of the Adelaidean System and the Kanmantoo Group. In the west of the Mt. Lofty Ranges, phyllites, quartzites and dolomites of the Willouran Series (River Wakefield Group) crop out, succeeded to the east by sandstones, siltstones, dolomites, quartzites and shales of the Burra Group. East

of the Gilbert Ranges, tillites, shales, siltstones and limestones of the Umberatana Group crop out, along with members of the Burra Group, in the cores of anticlines, and minor outcrops of Ulupa Sandstone (Wilpena Group) in the synclines.

4.2 Local Geology

The tenement lies to the east of the town of Burra and covers northward-striking Burra Group sediments that outcrop in a north-trending anticline, overlain by the Umberatana Group **(Figure 2).** The Umberatana group extends southeastwards to Eudunda where it is overlain by Quaternary sediments and in the west forms a broad valley between Burra Group sediments.

The eastern portion of the tenement is covered by recent to Tertiary alluvium with small outcrops of Burra Group sediments.

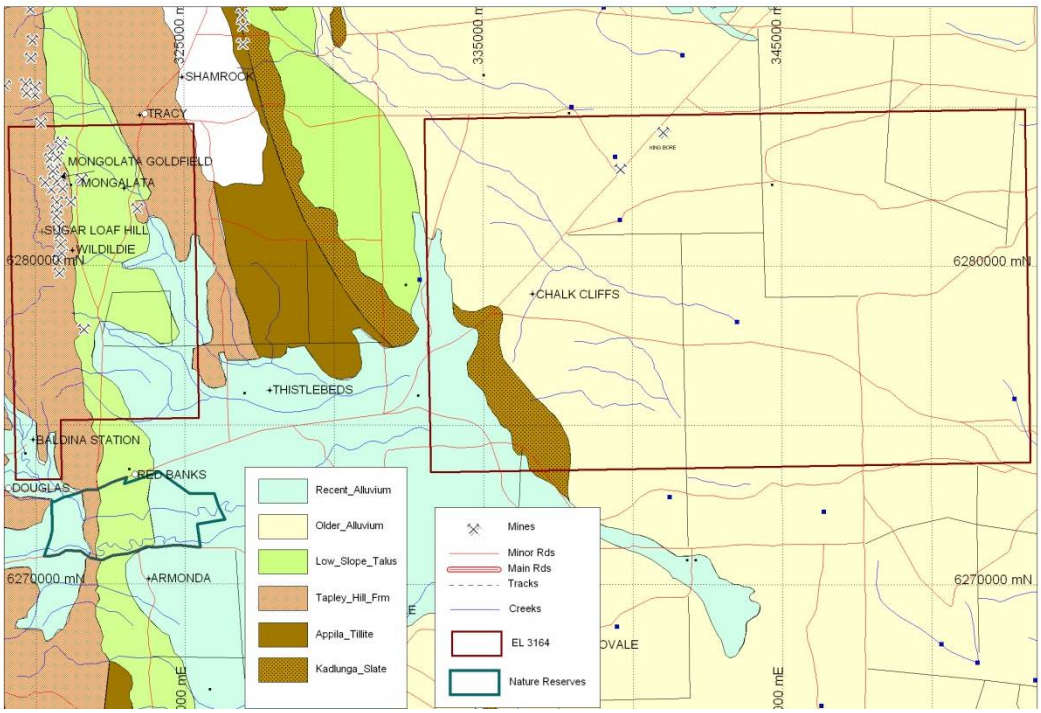

Figure 2: Regional Geology.

4.3 Physiography

There are at least seven landforms within the Burra Group. These include: deep incised creeks and drainage lines with shallow soils and rocky outcrops: plains, alluvial plains and floodplains with deep well drained soils: fans with surface cobbles: and flood-outs with deep well drained soils. All soils are alkaline throughout.

Vegetation varies from Black Oak Woodlands, Mallee and Bluebush/Saltbush Shrublands.

There are also large areas of Grassland, some of which may qualify to be included in the Environment Protection and Biodiversity Conservation Act Nationally Threatened Species and Ecological Communities.

The north-south running ridges consist mainly of outcropping to subcropping rocks of Burra and Umberatana groups of Adelaide system, the main prominent ridges are formed by tillites, fluvioglacial greywackes, siltstone, Arkosic sandstone and dolomite.

4.4 Regolith

While the calcrete is widely present throughout area, it is often concealed under a layer of sand, thick enough to prevent it from being reachable with basic digging tools. When outcropping, the calcrete appears submassive, with bedding variably distinctive. When buried underground it then evolves into nodular/colloform shapes toward the surface, before turning into pisolitic form. Independent pisoliths decrease in size closer to the surface.

Even where the massive calcrete is not outcropping through the sand, some floating fragments and pisoliths can frequently be found on the surface. When these fragments and pisoliths could be clearly identified (rabbit holes, tree roots) as not having been transported from another place.

5. PREVIOUS EXPLORATION

Little work has been undertaken within the current licence area, although numerous other EL's have covered the area, with most of the previous work being focussed around the Mongolata Goldfield on the Eastern portion of the current tenement, in the Burra area to the north and the Kapunda area to the south. In 2004 Marathon took over tenement ownership and completed the following notable exploration activities;

Mongolata 2004 -2008 Marathon (Bonanza)
Marathon's concept was to target the Mongolata area for Intrusion Related Gold (IRG) mineralization derived from the White Dam Granitoid, circular structure on eastern side of tenement. This could include greisen or skarn replacement type mineralization in surrounding suitable host rocks or potentially favorable dilatational zones for mineralization which may have been generated by structural disruptions prior to or during emplacement of the White Dam intrusive during the Delamerian (Cambrian-Ordovician) orogeny.

Little is known of the Adelaidean basement in the area of disruption, as indicated by the gravity signatures adjacent to the White dam intrusive. Previous drilling further to the west of Marathon's drilling intersected calc-silicates units indicating active skarn development relating to the White Dam Intrusive.

To the northeast, within the Olary 1:250,000 map sheet, syngenetic Au has been recorded associated with the Braemar Iron Formation and may be either structurally controlled or associated with alteration adjacent Delamerian granites. The Au mineralization at the historic Mongolata Goldfields may in part be indicative of the distal mineralization zoning which can be associated with IRG systems.

The results from previous drilling in the area have shown that the overlying Murray Basin sediments are 20-50m thick. The stable conditions which have assisted in the development of the significant calcrete within the Murray Basin sequence in the area would have facilitated the hydromorphic dispersion of other elements the profile.

5.1 Geochemistry

In 2007 Marathon completed a widespread soil and calcrete program which provided a base geochemical dataset to analyse. Following the orientation traverse testing calcrete and Mobile Metal Ions partial leach analytical and sampling techniques a regional sampling program was instigated using a triangular grid.

- Sampling Methodology

Sampling coordinates were preset and located in the field using a GPS Garmin 72 with an accuracy of ±5m in MGA94, and any variations recorded each evening on a digital file.
The survey was completed by two man crew using a tray top four wheel drive. All the sample bags were stored in plastic boxes during the samples collection, and packed each evening in large poly-weave bags for their transport to the laboratory.

- Calcrete sampling procedure

Sampling pits were dug with a paintless steel shovel. Once the calcrete was reached, if massive, it was broken by means of a steel bar, and then the pieces were collected in a 5mm plastic sieve in order to clear away the sand, soil and organic fragments. The samples were gathered into numbered calico bags. Nominal sample weight was 500g. The calcrete was not sampled at a regular depth, but were it was reached, usually from ~10cm to ~70cm depth.

- MMI™ soil sampling procedure

After digging an approximately 15cm deep pit with an even base, the samples were collected on this surface at a depth as regularly as possible, by means of a paintless pick and a plastic dust pan. They were then sieved through a 5mm plastic sieve into a plastic basin, and the passing fraction poured into numbered press-seal plastic bags, which were put in protecting referenced calico bags. Nominal sample weight was 250g. After each sample collection, the pick, pan, sieve and basin were brushed clean in order to avoid any cross-contamination. In the areas where calcrete was very close to the surface, the soil samples were taken between 5 and 15cm depth.

- Regional Triangular Grid Sampling

The sampling sites were set out on a triangular grid, with an average spacing of 0.5km between each point and each line. An area of 72km^2 was covered, measuring 9km N-S and 8km E-W.An

average ~40 sites per day were sampled for calcrete and soil samples using the above methodologies.

5.2 Drilling

From this information Marathon identified a trend between anomalous base metals in the soils and previously identified magnetic and gravitational anomalism. This provided the impetus for a recently completed a six-hole RC drill program designed to test this trend at depth.

In December 2007 Marathon applied for and was granted funding to the level of $80,000 to carry out the drilling under the PACE Initiative – a drilling collaboration between PIRSA and the Industry.

In March/April of 2007, Marathon Resources completed a 6 hole, 2206m RC drill program to test a combined base metal soil and geophysical anomaly identified across its Mongolata tenement (EL 3164). (See **Figure 3** and **Table 2**). The results from the drilling conclusively tested the basement below and adjacent to the anomalous trend with no economically significant mineralisation identified in the results.

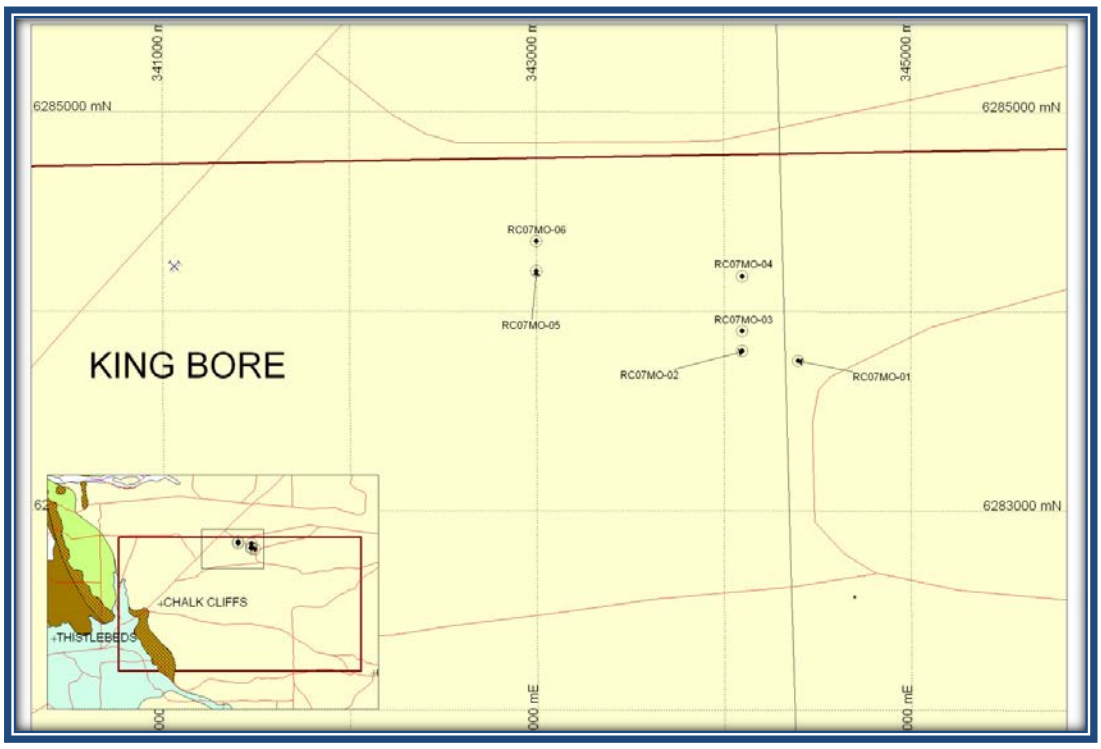

Figure 3: Marathon's Mongolata Drill Hole Collar Locations

At approximately 40m in thickness, the depth of the Murray Basin cover was as expected. The mostly unconsolidated, poorly sorted sediments suggest periodic deposition in a medium to high-energy environment. Broad basal clay zones may represent (paleo) deep weathering of the Adelaidean basement and common maghemite-quartz rich pebble horizons suggest that at times a sub-aerial environment existed where erosion of past lateritic soils or gossan/ironstone exposures occurred.

In relation to the Adelaidean basement, continuity, thickness and composition of the sediments indicates that drilling probably pierced the Saddleworth Formation (or equivalent) within the Upper Burra Group.

Carbonaceous muds and silts, visible in the drill results, have been described within the Saddleworth formation elsewhere in the broader region. As well, logging of rare quartz pebbles/cobbles coincides with mapping of very rare quartz and lithic pebbles to the south near Mintaro. These pebbles have been interpreted as possible dropstones from ice-rafting.

The drilling failed to locate mineralization of economic significance. Weakly anomalous copper values occasionally evident in the Adelaidean sediments tend to coincide with sulphur increases in the geochemistry and are probably related to weak chalcopyrite mineralization within quartz and quartz-carbonate veining. Albeit noteworthy, this amount of chalcopyrite is not uncommon in secondary veining, especially within weakly sulphidic sediments of such age, and alone, hardly warrant follow-up.

Thus, the lack of results from the drilling means that the calcrete/soil anomalism cannot be explained by leaching from an immediate basement source. Perhaps paleodrainage pathways, weakly evident in the lay of the land, are to explain the source or reason for such anomalism?

Water table heights, quantity and depths of the flows were highly variable in each drill hole. This was surprising given the proximity of the drill hole collars to each other. Natural porosity and permeability of the slates/silts is low. Flows are likely associated with late fracture zones. If not, then water must be held in bedding planes spaces and joints which would mean that folding or at least a variable dip in the bedding must exist to account for such variation in depths and volumes of water flow.

The drilling program adequately tested the basement stratigraphy adjacent to and below the soils anomaly. Aside from repeated anomalous results due to the influence of calcrete, no economic or geologically significant Au or base metal assays were identified in the results. As well, the quantity and type of veining and sulphide mineralization intercepted in the drilling was typical of such stratigraphy and does not, at least alone, warrant excitement or follow-up.

Table 2: Marathon RC Drilling Program Summary

Hole ID	Dip	Azi	Depth	Finish	Casing	Comments
RC07MO-01	-60	360	240m	29/03/2007	6m	Abandoned - excessive caving
RC07MO-02	-60	360	336m	3/04/2007	65m	Water return unset casing
RC07MO-03	-60	360	150m	10/04/2007	0m	Abandoned - excessive caving
RC07MO-03R	-60	360	400m	13/04/2007	56m	Water return unset casing (at depth)
RC07MO-04	-60	360	354m	17/04/2007	72m	
RC07MO-05	-60	360	300m	20/04/2007	60m	Finished early - huge flows
RC07MO-06	-60	180	54m	22/04/2007	54m	Abandoned damaged casing excessive
RC07MO-06R	-60	360	372m	25/04/2007	54m	
Totals			**2206m**			

The drilling program adequately tested the basement stratigraphy adjacent to and below the soils anomaly. Aside from repeated anomalous results due to the influence of calcrete, no economic or geologically significant Au or base metal assays were identified in the results. As well, the quantity and type of veining and sulphide mineralization intercepted in the drilling was typical of such stratigraphy and does not, at least alone, warrant excitement or follow-up.

The lack of results from the drilling means that the calcrete/soil anomalism cannot be explained by leaching from a local basement source. One alternative source of the calcrete anomalism could be that erosion, transportation and accumulation of mineralized material occurred along paleodrainage pathways. However, if the source is to remain related to the basement gravitational and magnetic anomalism, then it must remain relatively proximal to the existing drill holes.

Chemical anomalism within the calcite portion of the drill cuttings maintained a similar mobile element enrichment to that recognized in the initial soil data. Therefore, erosion, transportation and accumulation of mineralized material along (weakly evident) paleodrainage pathways rather that insitu leaching may explain the trend.

If the chemical anomalism is related to the basement gravitational and magnetic anomalism then the source must still be relatively proximal to the existing drill holes.

6. EXPLORATION BY PHOENIX COPPER

- **Geochemistry:** Geochemical sampling, a total of 818 FPXRF readings have been taken and added to databases, (see **Figure 5**).

- **Geophysics**: Geophysical Review, Reprocessing and Interpretation was undertaken and targets were generated. Geophysical sampling, a total of 347 Scintillometer readings have been taken and added to databases (see **Figure 6**). A solid geology interpretation generated from the geophysical data is shown in (**Figure 7**).

- **Data Collection**: Several historical reports were used as planning tools for the exploration completed.

- **Data Entry:** All geochemical samples taken by Phoenix Copper program have been entered into their corresponding “master databases” created by Phoenix Copper.

- **Geology**: Reconnaissance visit to understand the tenement boundaries and the state mapped geological units.

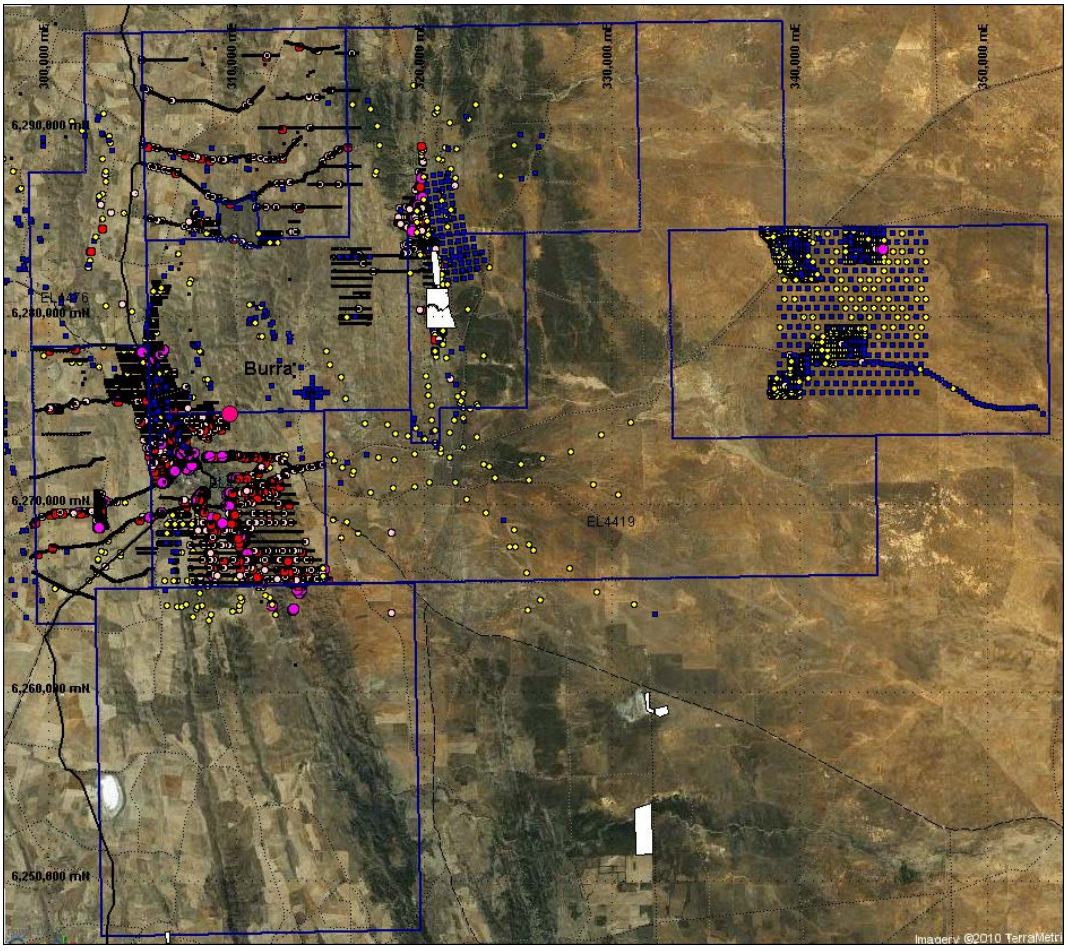

Figure 4: Geochemical Sampling on EL 4233 (East) Contoured for Cu.

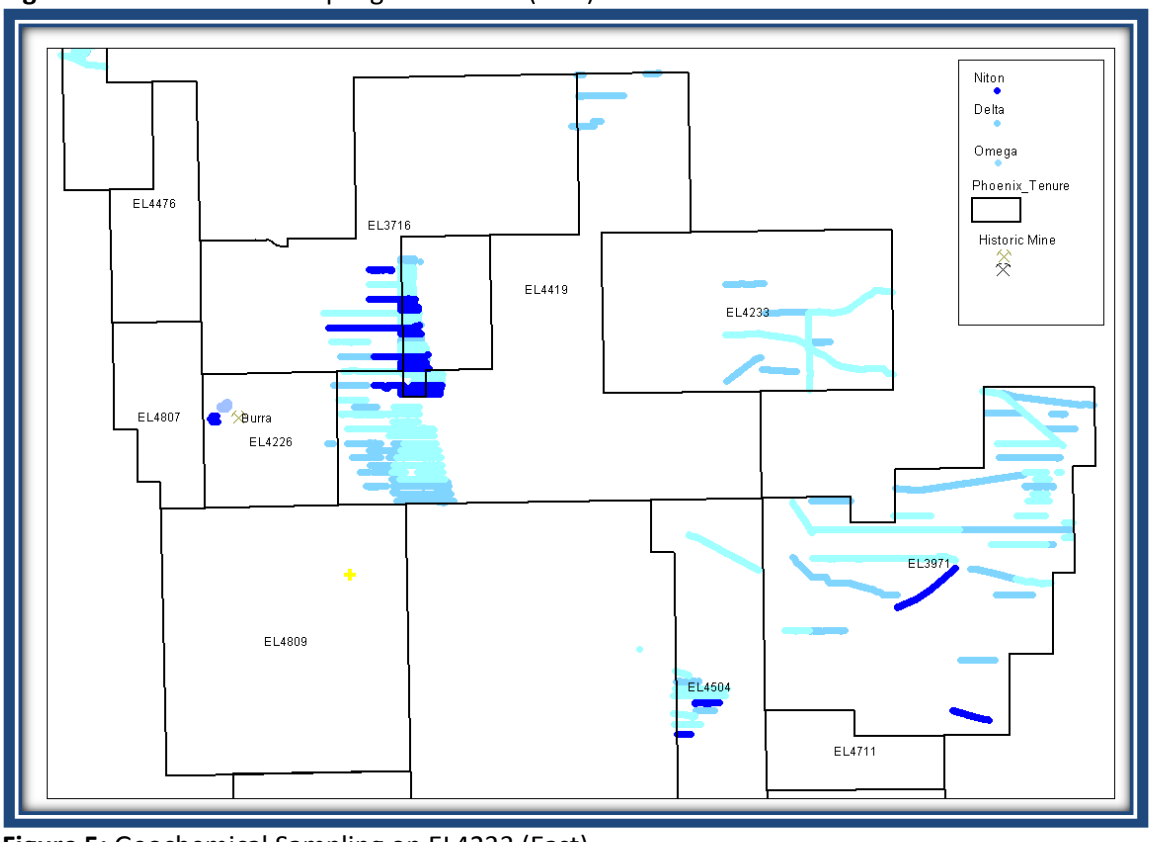

Figure 5: Geochemical Sampling on EL4233 (East)

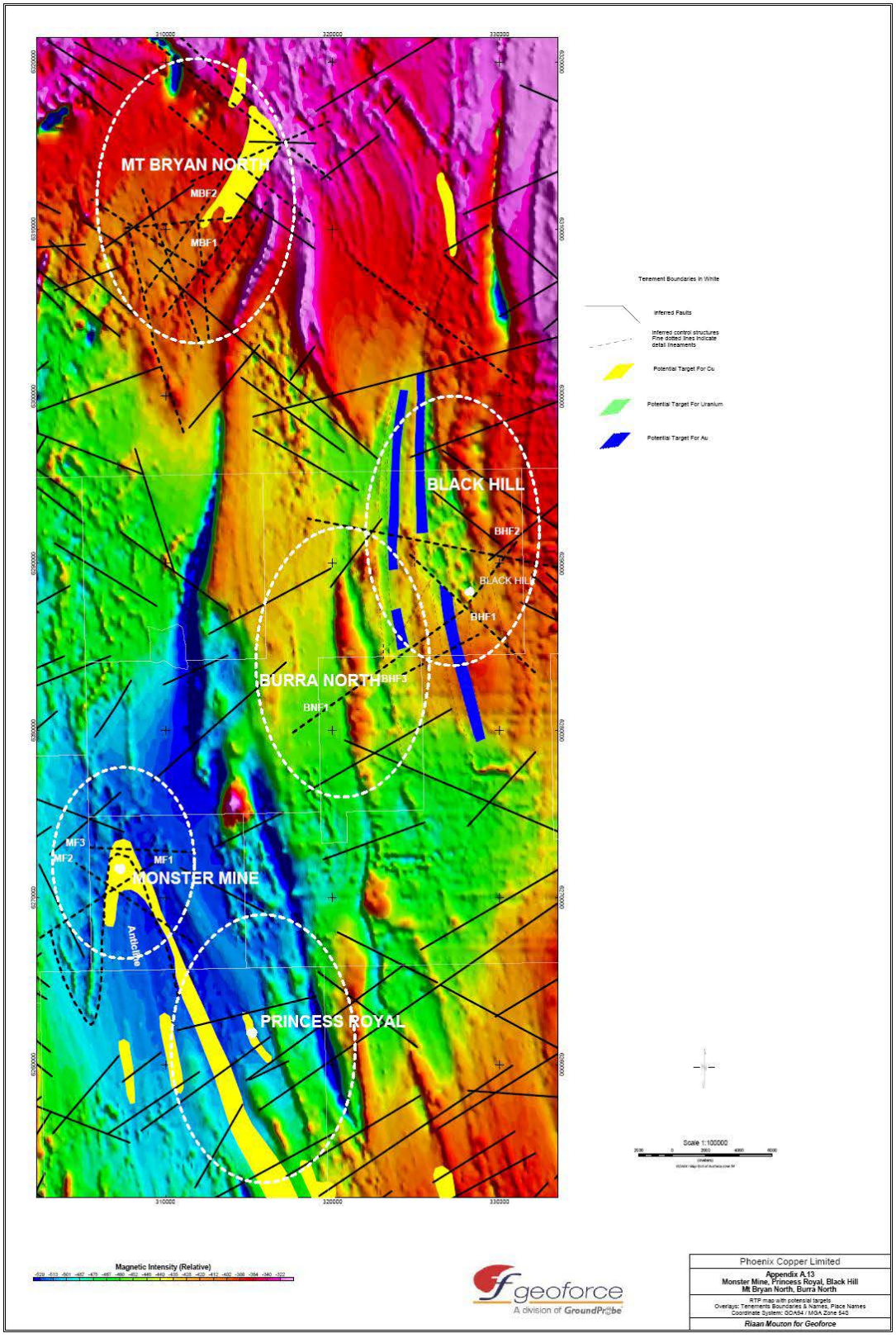

Figure 6: Geophysical Solid Geology Interpretation (Cu (yellow) and Au (Blue) targets on TMI with interpreted Faults and structures).

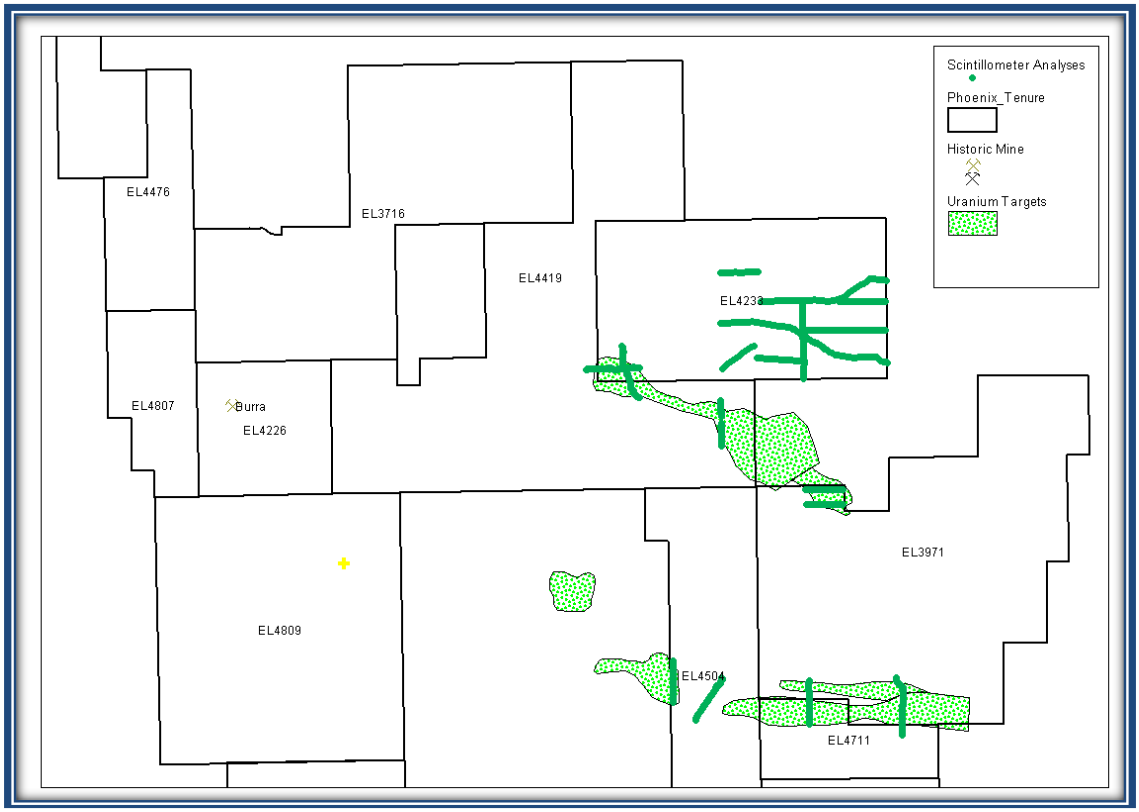

Figure 7: Scintillometer Sampling on EL4233 (East)

7. EXPLORATION BY AFS – JV PARTNER

In brief JV partner Australian Field Services Pty Ltd undertook the following exploration on the eastern block of the EL4233:

- 37 auger bedrock samples were analysed for Au, AG, AS, bi and Cu
- 4 DDIP traverse totalling 5.85 line km, 424 data points
- Calcrete sampling survey – 732 samples analysed for Au, Ag, As, Bi, Cu and Sb

APPENDIX 1

Geochemical Soil Analyses

EL4233

Data in digital file only