Annual Technical Report
EL 27369 ("Mt Russell")
Year 4 (2013)

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Date:	20 February 2014
Tenement Holders:	Riding Resources Pty Ltd (50%), Bralich Holdings Pty Ltd (50%), Core Exploration JV operators
Tenement:	EL27369
Prospect Name:	Mt Russell
Reporting Period:	31 December 2012 – 30 December 2013 (Year 4)
Distribution:	Bralich Holdings Pty Ltd (1), Riding Resources Pty Ltd (1) Geoscience.Info (Dept Resources - Minerals & Energy (1) Core Exploration Ltd (1)
Map Sheet:	Alice Springs 1:250,000 sheet (SF5314) Riddoch 1:100,000 sheet (5851)
Target Commodity:	Copper, Nickel, Gold
Keywords:	TMI Acquisition and Interpretation, literature review, soil samples, assays, Cu anomaly

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EL5015_2013_A_01_ReportBody.pdf	**215Kb**
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Summary

EL27369 lies 100 km north-east of Alice Springs, and encompasses a portion of the Hale River east of Claraville homestead. The tenement was first granted to Bralich Holdings Pty Ltd and Riding Resources Pty Ltd at the end of 2009. Core Exploration Pty Ltd has entered into a joint venture agreement with Bralich and Riding to earn into a package of tenements within the Arunta Region including EL27369. Core's active work on this tenement began in year 4 of the license.

Core has undertaken a comprehensive review into the Iron Oxide Copper Gold (IOCG) potential of the whole of the Arunta Region in addition to its detailed reviews on the previous exploration undertaken within each tenement it joint ventured into, including EL27369.

Within EL27369 Core has undertaken a series of mapping, rock chip sampling and soil sampling programs targeting the areas copper and gold potential. During year 4 of the license Core has collected 72 rock chip samples (Appendix 1: Figure 5) and 156 soil samples (Appendix 2; Figure 4) within EL27369. Core has identified four separate copper bearing (malachite) at surface localities (Figure 3).

Core is encouraged by the identification of new copper bearing areas and intends on further exploring the tenement for further evidence of surface mineralisation. This work will lead into geophysical surveys on the most prospective targets in preparation of reconnaissance drill testing, possibly late in year 5 of the license.

1.0 Introduction

This report covers the forth year exploration conducted at EL27369. EL27369 "Mt Russell" is located 100 km's north-east of Alice Springs and 36km south of the Plenty Highway within the Alice Springs 1:250,000 Geological Map Sheet (Fig.1.1). Access from Alice Springs is by way of Ross Highway for 70 km, thence northeast past Arltunga and heading towards Claraville homestead. Access within the tenement is by the way of a number of pastoral station and maintenance tracks that service the water bores within the property.

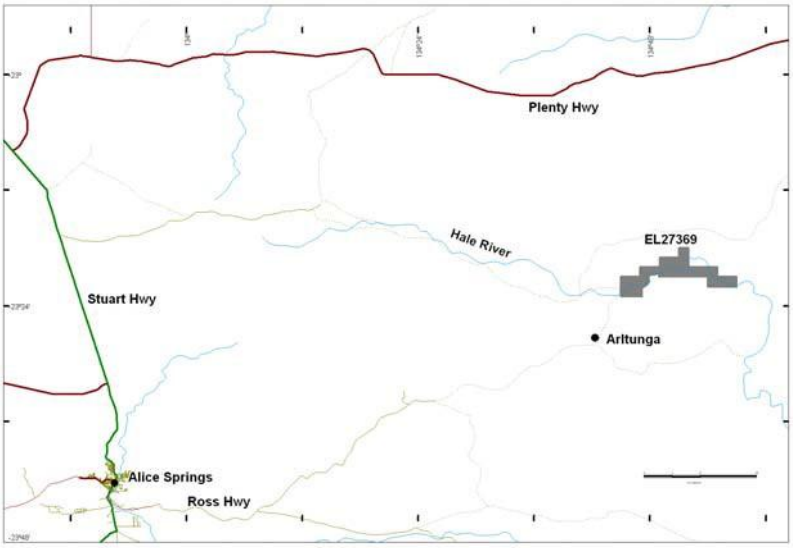

Figure 1.1 Location Map of EL27369

2.0 Geology and Mineralisation

EL27369 is located in the Strangways Region within Central Australia. The tenement's geology comprises Proterozoic Cadney metamorphics (undifferentiated amphibolite to granulite facies, metasediments, gneisses, marble and calc-silicate rocks) and gneisses and granulites of the Hillsoak Bore and Bungitina metamorphics (Figure 2.1). There are few documented modat mineral occurrences on EL27369; most appear to the south in the Arltunga goldfield (Figure 2.2). Only one Cu anomaly was recorded within the tenement when the tenement was first granted comprising an anomalous copper rock chip sample on the northern boundary of the tenement. This site now forms part of the Paradise Well Prospect one of four separate outcropping copper prospects discovered thus far within EL27369.

A summary of the first three years exploration on EL27369 is detailed as follows.

After reviewing relevant literature and the additional interest in REE's during 2011, it was decided to follow up this previous work, and at the same time, hopefully generate new targets. Some of the reports on the Arltunga area documents the historic quartz veins, (<1m wide) which carry upto 40 g/t Au. Some of these veins and workings extend onto EL27369 near Claraville, but given their small size (<1m) and likelihood of being uneconomic, these were not followed up in any great detail.

The REE potential is highlighted by a report from Pontifex and Associates (1989), they describe 3 rocks and associated thin sections identified as Paradise Well 1, 2 and 3. No locations are given for these samples in this or the annual report it was appended too (Murrell, 1989). Pontifex describes the samples as being monazite rich (upto 40%) with significant allanite and magnetite. Monazite is also a source of REE and provides an interesting target to explore.

A total of 35 soils (PWS series) and 5 rock chips (PWR series) were taken during the second year. The soils comprised the -80mesh fraction from about 30cm depth. Soils were taken from roadside and across an east-west traverse amongst the granites. The samples were then sent to the ALS sample preparation facility in Alice Springs. The rocks chips comprised mostly samples seen from alongside the road cutting, they were not in situ, but had probably been exposed and transported a little during the track building. Some mapping and traversing with a scintillometer was undertaken.

Twenty three new soil samples were taken across the central area of the tenement. The aim was to confirm the second year results and provide greater detail. Most of the outcrops in the survey were identified as gneiss and amphibolite. Additional work was completed by acquiring new magnetic and radiometric airborne data. The survey was undertaken by Daishsat Pty Ltd and processed by Baigent Geosciences Pty in May 2012. Flight lines were 100m spaced along a $135^0/315^0$ flight line.

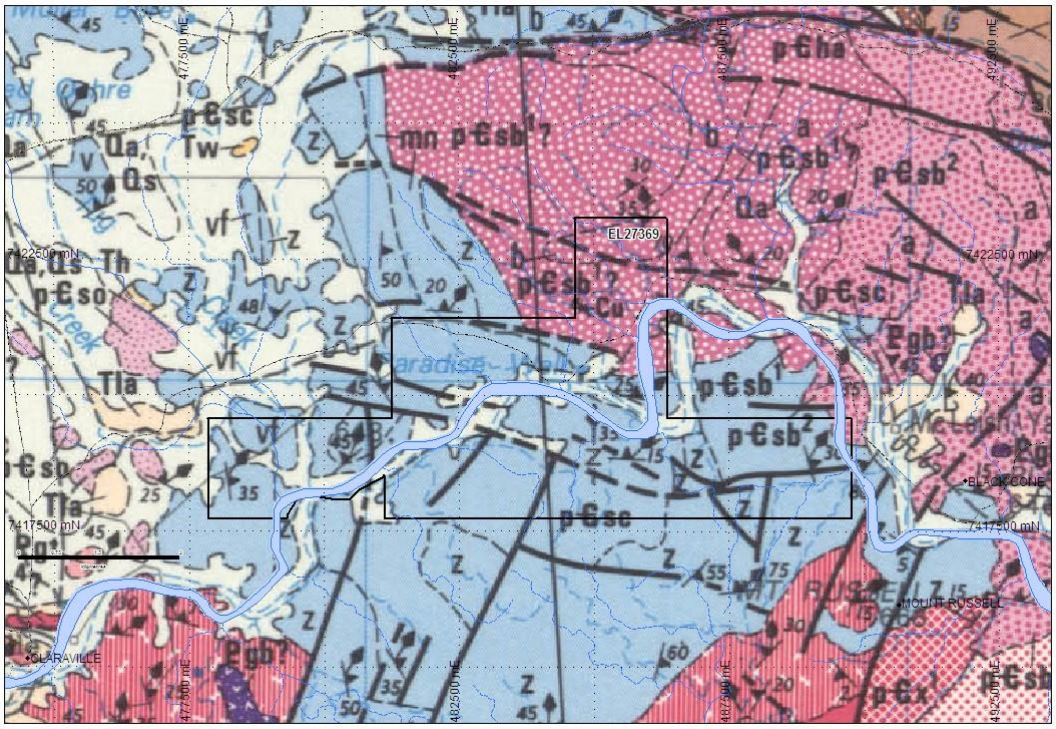

Figure 2.1 Extract from Alice Springs 1:250,000 Geology

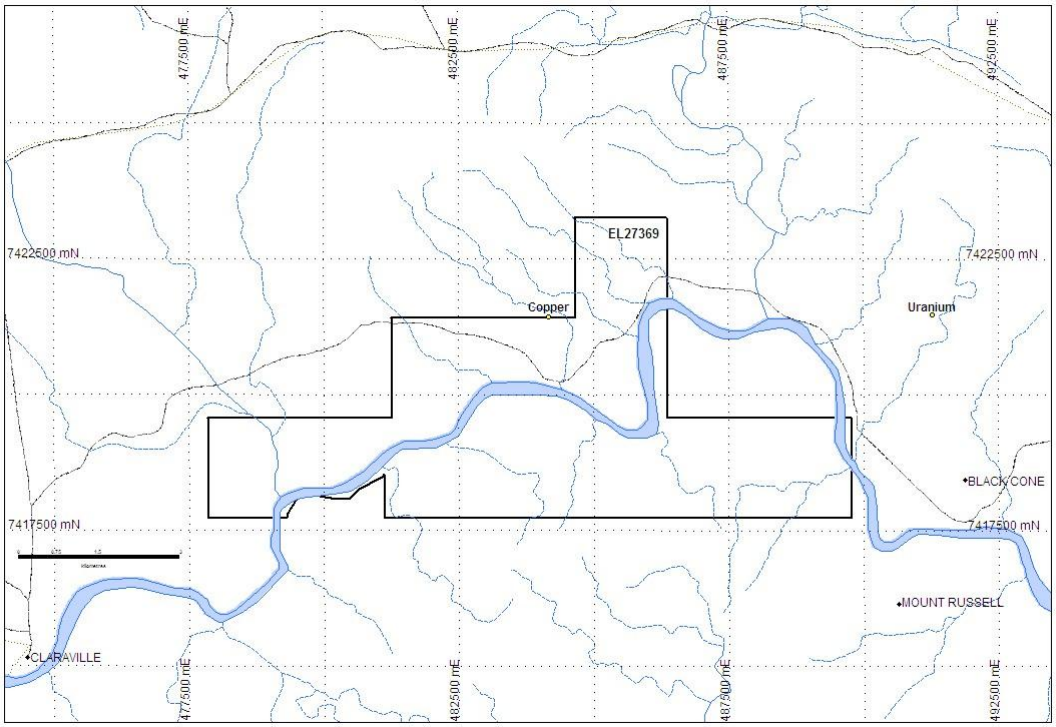

Figure 2.2 NTGS modat occurrences around EL27369

3.0 Tenure

EL27369 was granted on the 31 December 2009. The tenement lies on pastoral lease PPL1124 (Ambalindum Station). 50% of the blocks were relinquished after year 2. Tenure details are shown below.

Table 3.1 Tenure Details for Year 4

Tenement	Owner	Date Granted	Tenure	Size	Rent	Expenditure Commitment
EL 27369	Riding Resources Pty Ltd (50%) Bralich Holdings (50%)	31/12/2009	6 Years	11 sq. blocks	$1147	$30,000

4.0 Year 4 Work Summary

Late in the third year of the EL27369 license (2013) the tenement holders (Riding Resources Pty Ltd (50%) & Bralich Holdings (50%) entered into a joint venture agreement with DBL Blueys PL which is a fully owned subsidiary of Core Exploration Pty Ltd ('Core'), with Core earning into the tenement. Core's exploration model for the broader Arunta Region (Aileron Province within EL 27369) is focused on the Iron Oxide Copper Gold (IOCG) potential of the area within the Proterozoic basement in line with the results of Geoscience Australia IOCG report (Schofield et al; 2013).

Core began it exploration program in year 4 on the tenement with reconnaissance fieldtrips to the area to access the Cu rock chip and soil anomaly at Paradise Well identified by the joint venture partners in years 2 and 3 of the license period. Core then organized Euro Exploration Services to undertake a soil sampling program over the identified Paradise Well target and extend the survey into the surrounding area. A total of 314 soil samples were collected generally at 100m spacings with a 50m spacing central section at the Paradise Well Prospect. The samples were assayed for Ag, Cu, Pb and Zn, with results presented in Appendix 2.

Core then engaged a contract geologist to map at prospect scale the Paradise Well Prospect and rock chip sample the area to access its Cu-Au potential. A total of 42 rock chip samples were collected sampling both observed mineralisation and the variations in rock type (Appendix 1). A report for this work is attached in Appendix 3. After the contract mapping had been completed Core reassessed results at Paradise Well and interpreted the Paradise Well Prospect to be formed from remobilization of copper along structures as demonstrated by the copper being commonly found with fractures or with late stage silica rich melts within the structural trend. The contract geologist report also briefly touched on mineralisation south of Hale River which is also thought to have formed during a similar or equivalent remobilization event.

Core followed up this work with further rock chips and soil sampling over a broader area encompassing the Paradise Well – Hale River region. A further 27 rock chip samples and 134 soil samples were collected. Two new areas of observed malachite mineralisation were identified. The first loosely termed Paradise Well South follows a NE-SW striking trend with malachite associated with coarse (2-3mm) garnets, commonly within a micaeous schist. This target is once again interpreted to be formed as a result of late

stage copper remobilization along an existing NE-SW striking structural zone (Figure 3). The second new target, loosely termed ('New Paradise Well') comprises a NW-SE striking, generally <1m wide, very coarse garnet (4-5mm) + quartz ± carbonate unit with abundant malachite grading up to 6.16% Cu with 0.84g/t Au. The unit sporadically outcrops of approximately 150m and has at least one local repetition striking parallel approximately 15m to the south possibly due to a faulted offset. This malachite rich unit is found within foliated amphibolite and is thought to represent a metamorphosed primary mineralized layer, possibly with a calc-silicate or skarn related protolith. Core believes this is an encouraging discovery increasing the prospectiveness of subunits within the commonly outcropping amphibolites within the tenement.

5.0 Results and Discussion

During year 4 of the license Core has collected 72 rock chip samples (Appendix 1: Figure 5) and 156 soil samples (Appendix 2; Figure 4) within EL27369. Core has identified four separate copper bearing (malachite) at surface prospects (Figure 3). Three of these occurrences are interpreted to be the result of a late remobilization of copper rich fluid along existing structures whilst the forth occurrence is interpreted to be a metamorphosed primary mineralized lithology/layer within a foliated amphibolite.

Whilst in isolation these occurrences appear to be small in scale their relatively small distance to each other coupled with the interpretation that three of them formed during remobilization of copper rich fluid, means the area remains prospective for a currently unknown larger scale mineralized body or bodies. The 'New Paradise Well' discovery of Cu ± Au within mineralized unit(s) within a foliated amphibolite increases the prospectiveness of the amphibolites within the region. Whilst little direct evidence of IOCG style alteration or mineralisation has been identified to date within EL27369, Core's initial prospecting and sampling has identified previously unknown copper occurrences making it still a priority Cu + Au tenement for the company.

6.0 Rehabilitation

There were no earth disturbing activities on the tenement. No rehabilitation was required.

7.0 Year 4 Expenditure

Table 7.1: EL27369 expenditure Year 4 (2013)

ACTIVITY DETAILS FOR THE REPORTING PERIOD		
Admissible Expenditure	**Specify the work undertaken**	**$AU Claimed**
A. Geological Activities and Prospecting	Mapping, rock chip and soil sampling (72 rock chips, 448 soils)	$53,075.42
B. Geochemical Activities	Assays for 72 rock chips and 448 soils	$33,722.64
H. Office Studies	Literature review, mineralisation model reviews	$4,000.00
I. Overheads (not to exceed 15% of the sum of A to H above)	Administration	$4,500.00
J. (Preliminary Exploration – Yr 1)		
K. Total Expenditure Claimed	**$95,298.06**	
L. Covenant for this reporting period	$30,000	

8.0 Year 5 Proposed Work

Core plans to follow up on its year 4 successes with further mapping and sampling within EL27369. Core is considering undertaking further soil sampling to infill at 200m a larger portion of EL27369 and surrounding tenure to further target Cu + Au mineralisation in the region. Further mapping and sampling would follow on from these soil surveys, incorporating interpretations of the high quality magnetic/radiometric survey collected over the area by the joint venture partners in year 3. Once the mapping and sampling is completed all the occurrences will be accessed and the most prospective localities selected for ground based geophysics leading to drill targeting. From then any deemed drill ready targets would be planned to be drill tested as soon as appropriate clearances and approvals could be granted, possibly in late year 5.

Table 8.1: EL27369 proposed expenditure Year 5 (2014)

ACTIVITY DETAILS FOR THE YEAR 5 (NEXT REPORTING PERIOD)		
Admissible Expenditure	**Specify the work to be undertaken**	**$AU Proposed**
A. Geological Activities and Prospecting	Mapping, sampling rock chips + soils	$5,000.00
C. Geophysical and Remote Sensing Activities	Prospect scale ground magnetic or electrical methods	$15,000.00
D. Drilling	RC drilling 2nd half of 2014	$20,000.00
I. Overheads (not to exceed 15% of the sum of A to H above)		
J. Covenant for next reporting period	Minimum expenditure should exceed $21,000	$40,000.00

References

Murrell, B.1989. Exploration Licence 5681, a report on exploration activities 6 April 1988 – 5 April 1989. CR1989/252

Pontifex I (1989). Mineralogical Report 5443, appended to Murrell Report (CR1989/585)

Schofield, A; Huston, D; Kemp, C: 2013. Iron oxide-copper-gold potential of the southern Arunta Region. Geoscience Australia.

Figures

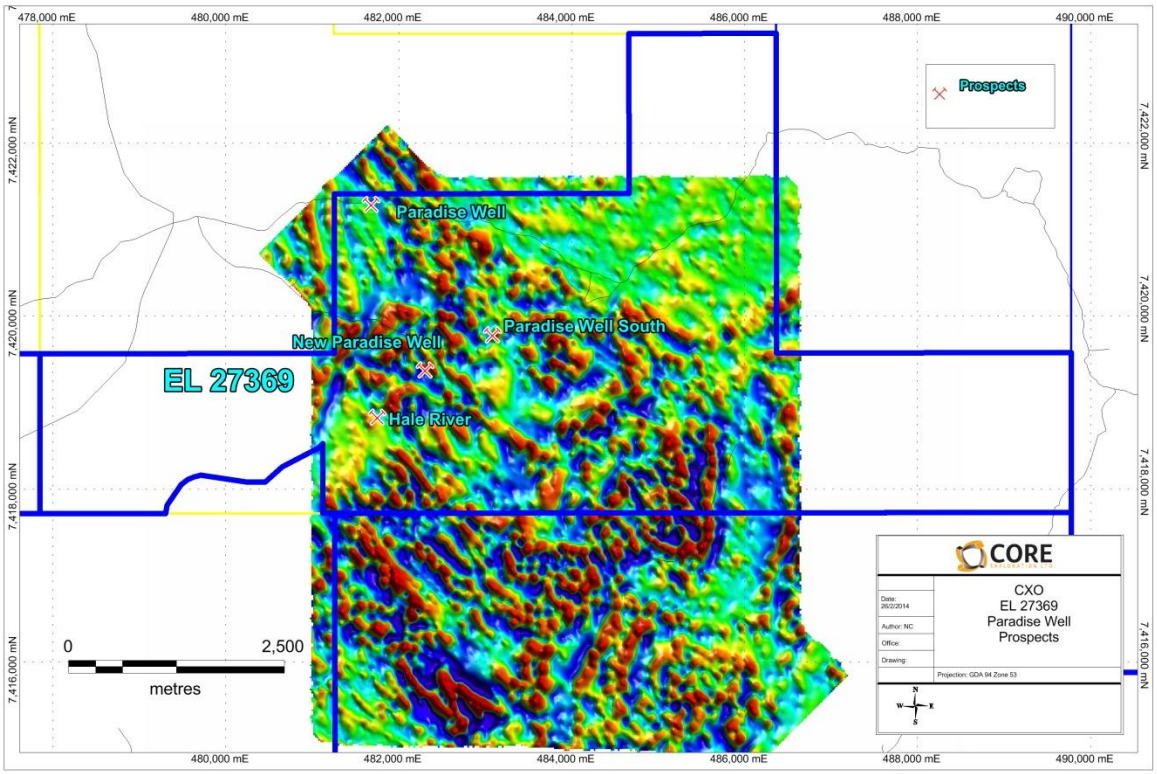

Figure 3: EL27369 identified copper occurrences

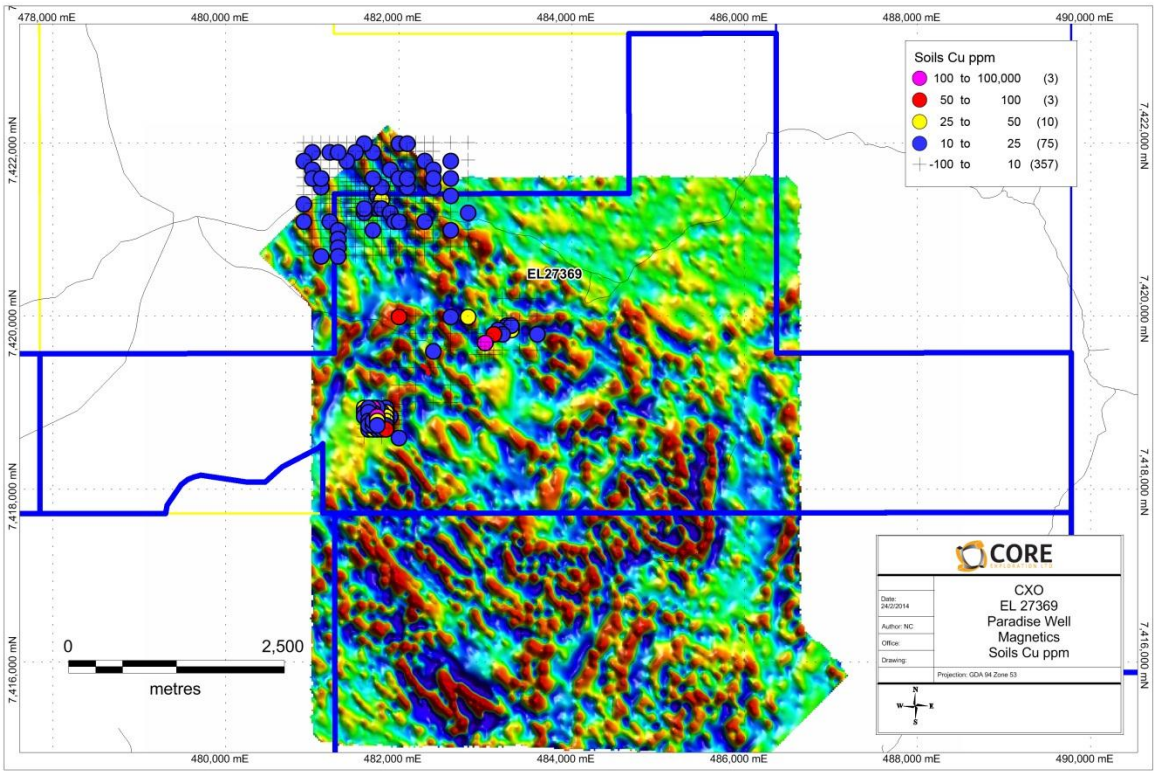

Figure 4: EL27369 2013 soil data gridded for Cu ppm

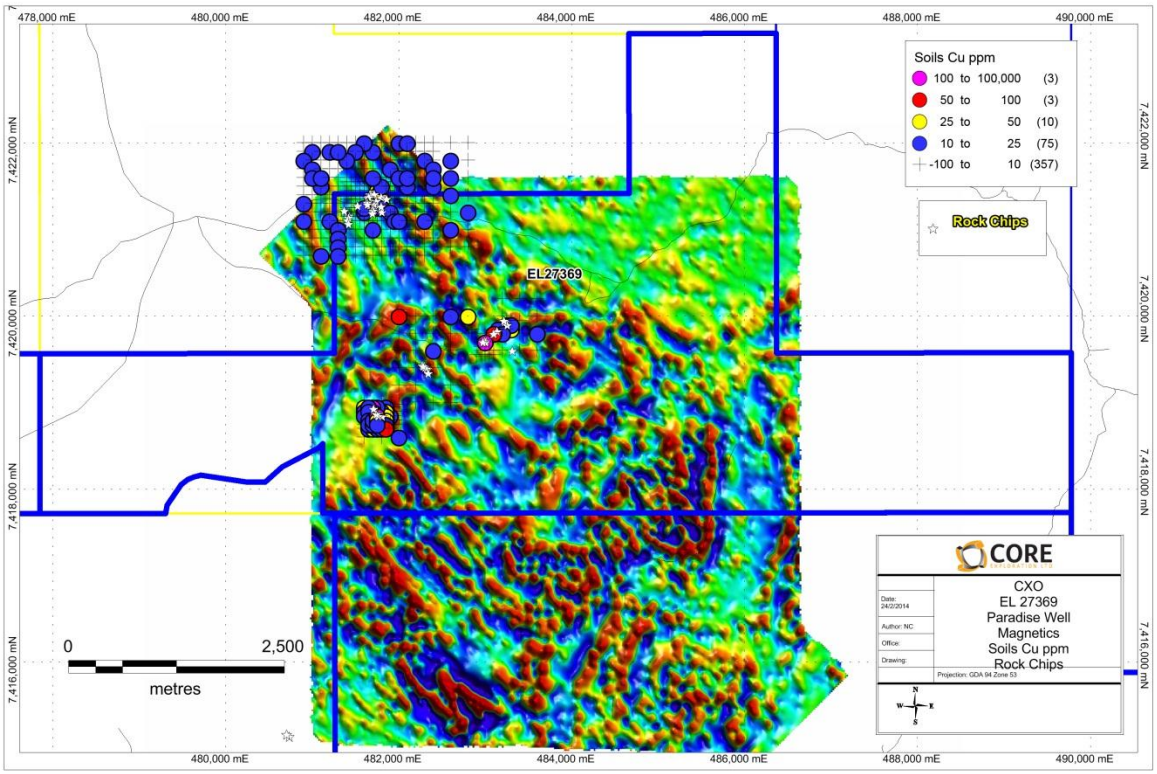

Figure 5: EL27369 2013 soil data gridded for Cu ppm with rock chip locations

Core Exploration Ltd

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