



**Partial Relinquishment Report
Exploration Permit for Minerals
EPM 12023 Back Creek**

Tenure Holders: Chinova Resources Cloncurry Mines Pty Ltd
Exco Resources Limited

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SUMMARY

Aim of Project

Exploration Permit for Minerals EPM 12023 Back Creek is considered prospective for iron oxide-copper-gold mineralisation, copper-gold mineralisation, massive sulphide lead-zinc-silver deposits and uranium mineralisation.

Datum

Data are presented in MGA94 (z54) datum.

Object of Report

This report documents the results of exploration on the eight relinquished sub-blocks of EPM 12023 conducted from 25 July 2003 to 24 July 2014.

Location

EPM 12023 lies approximately 50 km south-southwest of McKinlay.

Tenure

After eight sub-blocks were relinquished from EPM 12023 on 24 July 2014, the tenement consists of eight sub-blocks. It was originally granted to BHP Minerals on 25 July 2003 with 55 sub-blocks.

Summary of Exploration

Exploration on the eight relinquished sub-blocks of EPM 12023 conducted from 25 July 2003 to 24 July 2014 comprised a ground magnetic survey and an RC-diamond drill hole. Hole BCD0001 with a depth of 549.7 m tested an intense magnetic feature defined by the ground magnetic survey. No anomalous assays were returned from the hole.

The drill hole intersected foliated, feldspar-chlorite altered and variously magnetic amphibolite in the upper section of the basement, and red feldspar altered migmatitic gneiss in the lower section. Magnetic susceptibility data indicated that the amphibolites were likely to be the source of the magnetic anomaly.

Conclusions

The curvilinear and rather zoned nature of the magnetic anomalies at Back Creek is believed to be caused by folded and magnetic amphibolites that were intersected in BCD0001.

The highest priority part of the magnetic anomaly in the relinquished sub-blocks has been drill tested with no anomalous assays returned. No further work is recommended in this area.

TABLE OF CONTENTS

1. INTRODUCTION.....4

2. PARTIAL RELINQUISHMENT4

3. LOCATION AND ACCESS.....7

4. WORK DONE ON RELINQUISHED SUB-BLOCKS7

 4.1 2008 Ground Magnetic Survey.....7

 4.2 2009 Drilling.....7

 4.3 Prospect Geology7

 4.3.1 Mesozoic Sediments7

 4.3.2 Proterozoic Basement Lithologies.....8

 4.3.3 Alteration and Mineralisation8

 4.4 Conclusions8

LIST OF TABLES

Table 1: EPM 12023 Back Creek 2009 Diamond drill hole collar 7

LIST OF FIGURES

Figure 1: EPM 12023 regional location5

Figure 2: EPM 12023 relinquished and retained sub-blocks 6

Figure 3: EPM 12023 Back Creek BCD0001 cross section and collar location on magnetics 9

Figure 4: Ground magnetic survey lines on RTP image 10

LIST OF APPENDICES

Appendix 1: BCD001 Assay data..... 11

1. INTRODUCTION

EPM 12023 Back Creek was granted on 25 July 2003 to BHP Billiton Minerals Pty Ltd with 55 sub-blocks. In August 2004 the exploration permit was assigned to Exco Resources Limited. The tenement was assigned from Exco Resources Limited (100%) to Chinova Resources Cloncurry Mines Pty Ltd (formerly Ivanhoe Cloncurry Mines Pty Limited) (80%) and Exco Resources Limited (20%) on 20 August 2012.

Following the relinquishments of 24 sub-blocks on 26 October 2006, 15 sub-blocks on 25 July 2007 and eight sub-blocks on 24 July 2014, there are now eight sub-blocks in the EPM (Figure 1). EPM 12023 lies approximately 50 km south-southwest of McKinlay.

Eight sub-blocks in EPM 12023 were relinquished on 24 July 2014. This partial relinquishment report describes all activities carried out in the relinquished area of EPM 12023 from when the permit was granted on 25 July 2003 until the sub-blocks were relinquished on 24 July 2014.

Work completed in the relinquished area included a ground magnetic survey and a diamond drilling program.

2. PARTIAL RELINQUISHMENT

The sub-blocks in EPM 12023 that were relinquished on 24 July 2014 and those that were retained are listed below and shown in Figure 2.

Relinquished sub-blocks:

<u>BIM</u>	<u>Block</u>	<u>Sub-blocks</u>
Clon	1405	t y
Clon	1477	b c d e g h

Total = 8 sub-blocks relinquished

Retained sub-blocks:

<u>BIM</u>	<u>Block</u>	<u>Sub-blocks</u>
Clon	1477	j k p q u v w z

Total = 8 sub-blocks retained

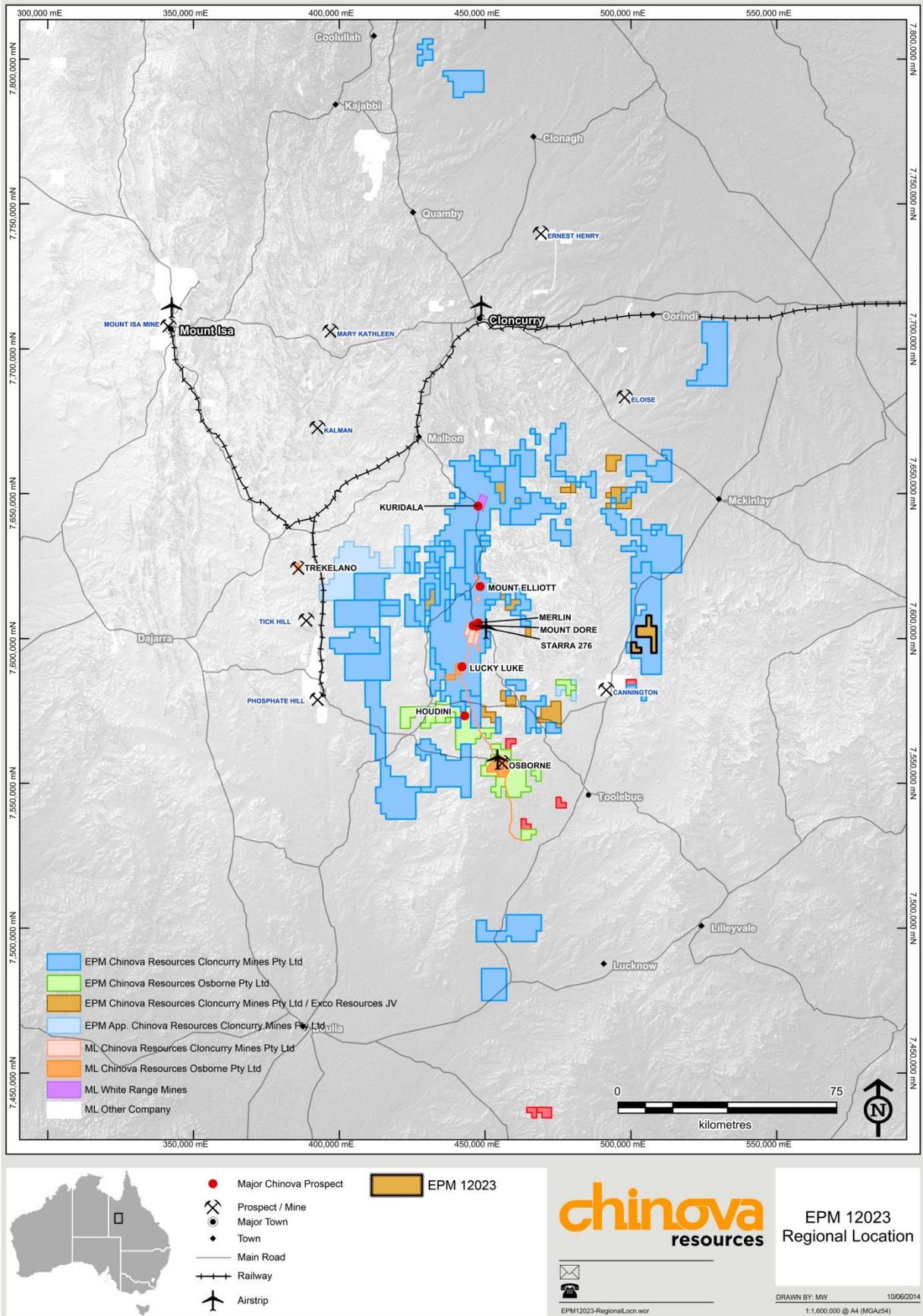


Figure 1: EPM 12023 regional location

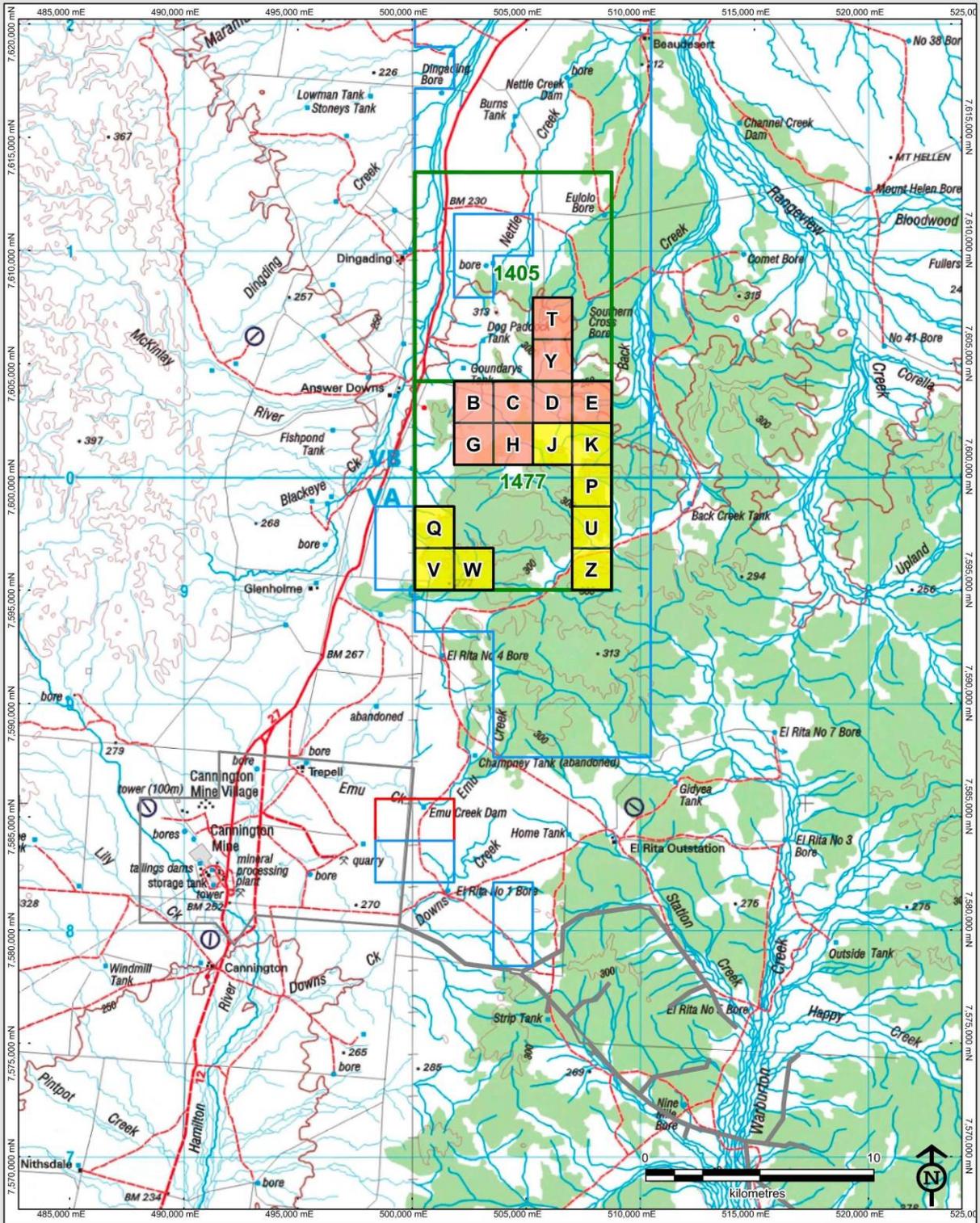


Figure 2: EPM 12023 relinquished and retained sub-blocks

3. LOCATION AND ACCESS

EPM 12023 lies approximately 50 km south-southwest of McKinlay. The eight relinquished sub-blocks in EPM 12023 (**Relinquished Sub-blocks**) occur on the Ashover, Dingading and El Rita Pastoral Leases.

Access to EPM 12023 is via the McKinlay – Cannington road. Road access is good from March to December with intermittent closure due to flooding and heavy rains possible from January to March. Limited existing tracks may be used by 4 wheel drive vehicles for access within the tenement.

4. WORK DONE ON RELINQUISHED SUB-BLOCKS

4.1 2008 Ground Magnetic Survey

A small ground magnetic survey was completed in the Relinquished Sub-blocks in 2008 over the most intense part of a deep magnetic anomaly evident in 1991 MIM aeromagnetic data (Figure 3). A total of 26 line km was surveyed on east-west lines spaced at 200 m (Figure 4).

4.2 2009 Drilling

A single hole BCD0001 with a depth of 549.7 m was completed on 7 August 2009 testing the magnetic feature defined by the ground magnetic survey. Due to its thickness and clay-rich horizons, the Mesozoic section was penetrated with 216 m of rotary mud drilling, then tailed with 333.7 m of NQ2 diamond drilling. Drill hole collar details are given in Table 1.

Table 1: EPM 12023 Back Creek 2009 Diamond drill hole collar

Hole	E MGA54	N MGA54	RL m	Dip	RC-Rotary mud m	Diamond, NQ2 m
BCD001	506580	7606560	222	-90	216	333.7

The hole intersected foliated, feldspar-chlorite altered and variously magnetic amphibolite in the upper section of the basement and red feldspar altered migmatitic gneiss in the lower section. No anomalous assays were returned (Appendix 1).

Magnetic susceptibility data plotted against lithological units show higher magnetic responses associated with amphibolites in the upper section of the basement. The lower part is characterised by lower values with spikes of high responses coinciding with sections of mafic gneiss.

The highest magnetic susceptibility of 9249.5 SI units at 242 m was returned from magnetic amphibolite and is likely to be a source of the magnetic anomaly.

4.3 Prospect Geology

4.3.1 Mesozoic Sediments

EPM 12023 is situated on northwestern margin of the Mesozoic Eromanga Basin, which unconformably overlies the Proterozoic basement. There is no Proterozoic outcrop within the tenement. The Mesozoic section comprises Toolebuc Formation limestones and shales and Alluru Formation mudstones. The cover sediments thicken to the east and were 210 m thick in the drill hole.

4.3.2 Proterozoic Basement Lithologies

The Proterozoic rocks in the drill hole are migmatitic gneisses, amphibolites, gneisses, migmatites and granites. These rocks are interpreted to belong to the Soldiers Cap Group.

The gneisses are cream to dark green and consist of dark green mafic and lighter coloured felsic layers in varying thicknesses. The migmatites locally show magnetic variations suggesting they may have an amphibolitic protolith.

Highly foliated rocks characterised by alternating feldspar and hornblende layers were interpreted as migmatites and occurred between 405 and 435 m.

Amphibolites were the most common unit in the drill hole and are dark green, foliated and magnetic. They consist of 80% foliated hornblende and minor feldspar, and are generally weak-moderate chlorite altered and variously magnetic. Locally the amphibolites are strongly biotite-chlorite altered. Rare and weak pyrite disseminations and veinlets usually occur in association with biotite-chlorite.

Pegmatites consisting predominantly of feldspar were hosted by amphibolites and intersected throughout the hole. The pegmatitic units were white to red, coarse-grained and leucocratic. Their apparent width varies from 0.3 m to 3 m. The pegmatites commonly host isolated clusters of hornblende–biotite with weak patchy pyrrhotite–pyrite ± magnetite ± chalcopyrite mineralisation. The hornblende–biotite–sulphide–magnetite assemblage also occurs as narrow alteration selvages adjacent to pegmatites.

Granite occurs as dykes up to 2.5 m wide. The unit consists of dominant subhedral to rarely euhedral plagioclase, subordinate quartz and minor mafics. The granite hosts trace pyrite and minor blotchy magnetite. It cuts both the amphibolites and the pegmatitic dykes and appears to be the youngest basement unit intercepted in the hole. A single narrow section of granite containing trace molybdenite was intersected at 327.3 m but did not give anomalous assay results.

4.3.3 Alteration and Mineralisation

The basement rocks display amphibolite facies metamorphism. Alteration mostly comprises chlorite ± magnetite within amphibolites with an overprint of red feldspar ± pyrite (albite?). Feldspar-actinolite ± pyrite was noted predominantly within gneisses and migmatites towards the bottom of the hole; and forms 5-20 m wide sections with trace to weak pyrite veining (maximum 2% per metre).

Mineralisation is restricted to isolated weak pyrite and pyrrhotite ± chalcopyrite ± magnetite within pegmatites, amphibolites, gneisses and migmatites. The latter mineralisation assemblage mainly occurs as selvages and to a lesser extent as patchy aggregates within leucocratic pegmatites.

Assays returned a maximum of 2 m @ 0.08% Cu and 0.05 g/t Au from 504-506 m from biotite-magnetite altered gneiss with 2% pyrite.

The late stage granites locally host minor magnetite veining.

4.4 Conclusions

The curvilinear and rather zoned nature of the magnetic anomalies at Back Creek is believed to be caused by folded and magnetic amphibolites that were intersected in the drill hole.

The highest priority part of the magnetic anomaly in the Relinquished Sub-blocks has been drill tested with no anomalous assays returned. No further work is recommended in this area.

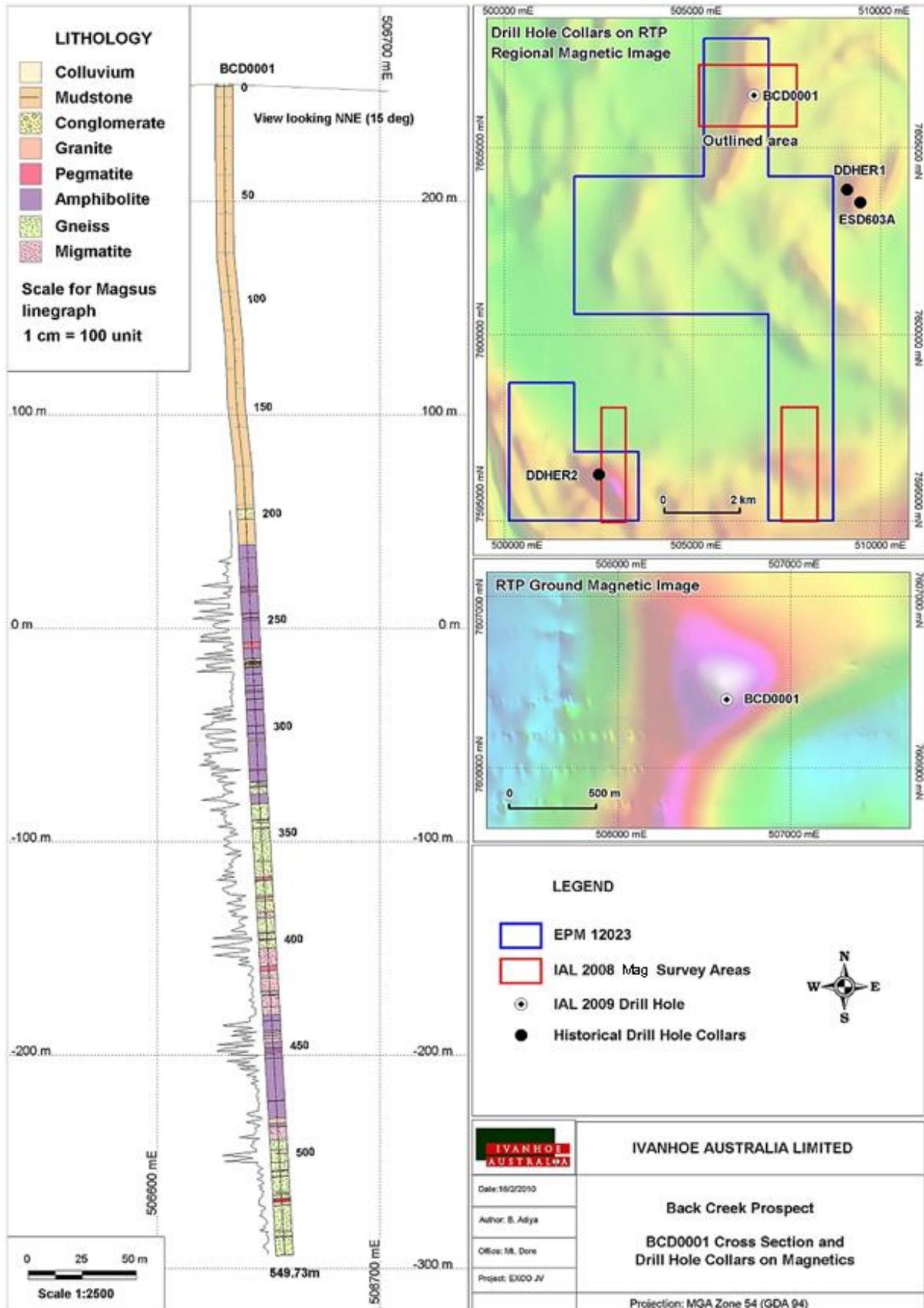


Figure 3: EPM 12023 Back Creek BCD0001 cross section and collar location on magnetics

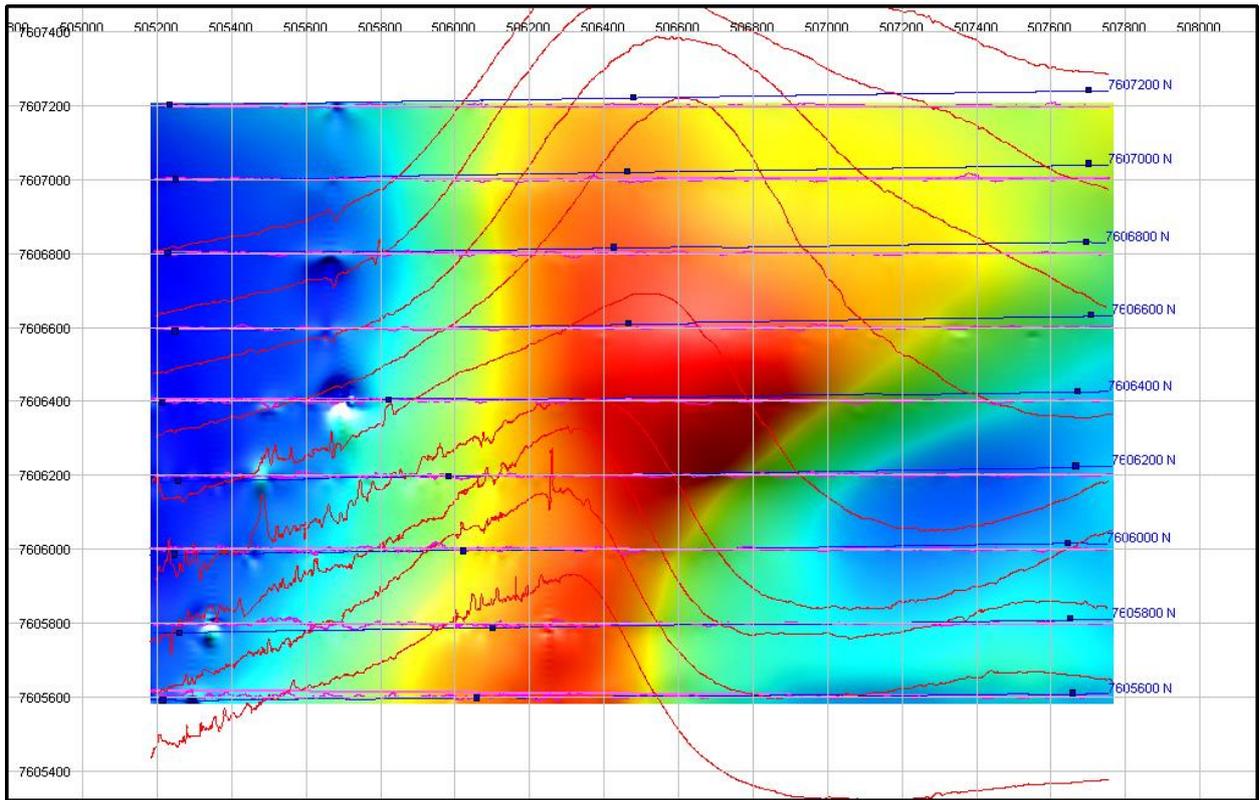


Figure 4: Ground magnetic survey lines on RTP image

Appendix 1: BCD001 Assay data

Digital data included as a separate component in QDEX.