.

Field Trip Bootu Creek

Inspection of VTEM Anomalies

Executive Summary

Bligh recently flew a 785 line Km Variable Time-Domain Electromagnetic (VTEM) survey at its Bootu Creek Two Project, identifying 10 VTEM anomalies 40 km south of OM Holdings' Bootu Creek Mine.

These VTEM anomalies that have been identified as potentially representing high grade manganese mineralisation based on electromagnetic responses and conductive ranges (Figure 1 & Table 1). The Bootu Creek Two Project has similar geology and structural setting to the OMH Bootu Creek Mine, **and Bligh's VTEM anomalies are situated on or within the Bootu Creek Formation contact zone - the primary source of manganese mineralisation in the region.**

A field visit over ten day period was carried out on site (Bill Guy and Xavier Brawn). David Broomfield from Territory Resources was also onsite for 2 days 31 July and 1 August 2012.

In general terms the VTEM anomalies occur in recessive area's associated with the Bootu Creek Dolomites. Geologically the target is manganese mineralisation replacing the carbonate minerals in the dolomite. In the field examples of the replacement mineralisation process were discovered with some samples returning around 20% Mn.

Proud outcrops of high grade manganese were not found. The manganese mineralisation occurs as sub crop and in creek sections. The mineralisation ranges between 5 to 20% Mn with varying Fe vales up to peak vales of 53 % Fe. As the VTEM anomalies sit in topographical recessive area's all targets are covered or partial covered in shallow scree and alluvium. The scree usually consists of sandstone and quartzite from the topographic high ridges formed by the sediments.

The only VTEM anomalies down grade via field work was targets BCrk_VC 3 and BCrk_VC 4 where the central anomaly was dominated by sandstones within target area. Anomalies BCrk_VC-1, 2, 5, 8 contains area' of subcrop Mn between 5-13%. On the edge of anomaly BCrk_VC7 a 20m creek section returned vales from 6 to 20% Mn.

Anomalies BCrk-VC 9 & 10 are completely cover by colluvium. Both anomalies are high priority geophysical targets.

Note anomaly BCrk_VC-6 is mostly covered by heritage site

Anomalies BCrK_VC-1,2,5,7,8,9,10 will require drill testing.

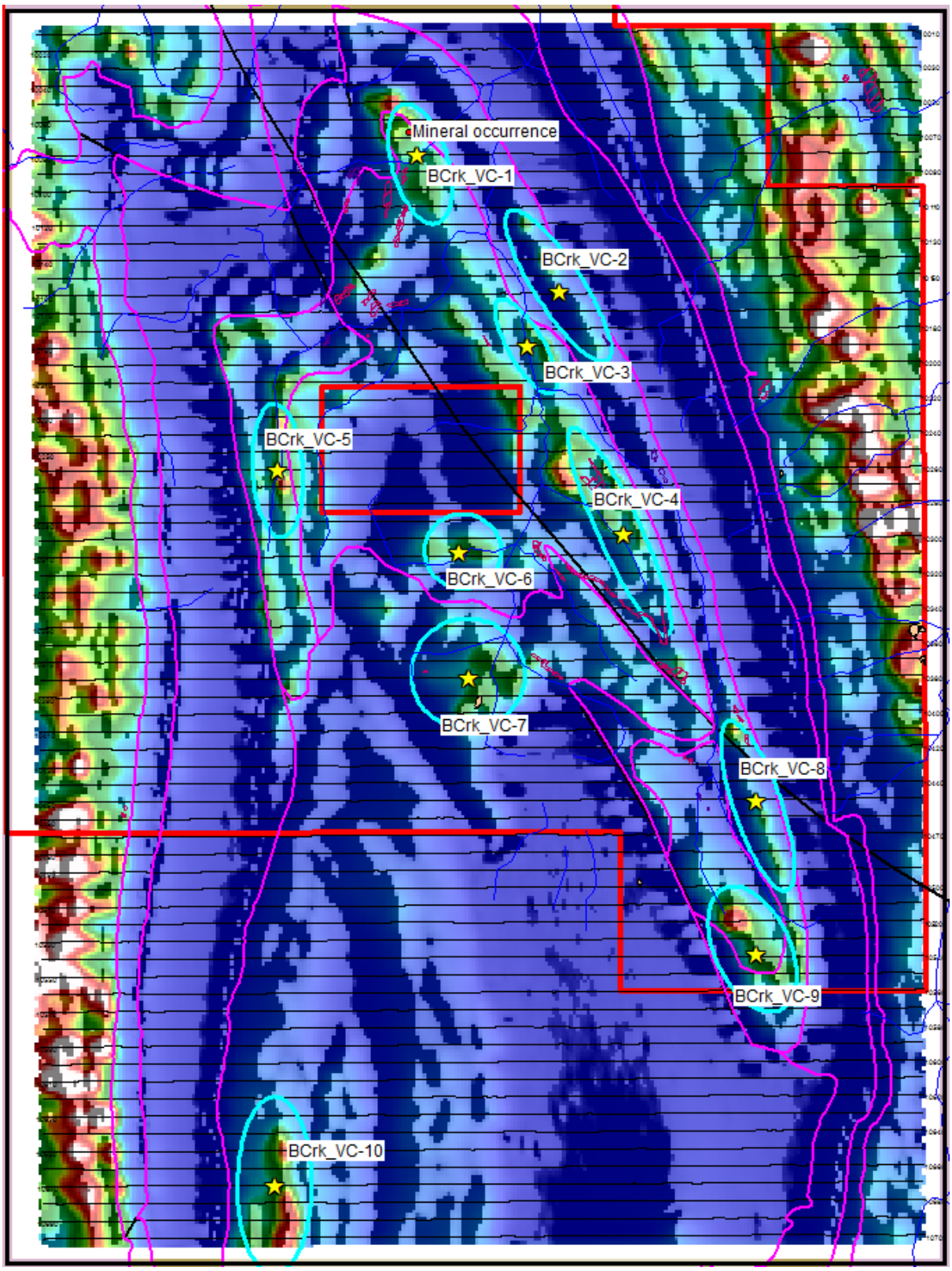


FIGURE 1 ANOMALY LOCATION MAP

TABLE 1 SUMMARY OF POTENTIAL TARGETS

Target	Location	Priority	Comments
BCrk_VC-1	399,520 mE, 7,891,910 mN*, Line 10080*	1	*This anomaly is the northern most part of a conductive zone along the eastern arm of the syncline and is of primary exploration interest. Located in nose of syncline - in geologically similar placement to Bootu Creek type deposits.*
BCrk_VC-2	*401,150 mE, 7,890,340 mN, Line 10160*	*3*	*Anomaly is situated in the Attack Formation. Appears to be a shallow EM feature, therefore not a high priority. Might be structurally bound by possible faulting/ folding at this point in the syncline.*
BCrk_VC-3	400,790 mE, 7,889,710 mN*, Line 10190*	2	*Manganiferous unit possibly restricted by folding and/or faulting within the syncline arm and therefore a probable area of mineralisation.*
BCrk_VC-4	401,895 mE, 7,887,550 mN, Line 10300	1-2	Anomaly strata bound within Bootu Creek formation to the east and faulting to the south west.
BCrk_VC-5	397,920 mE, 7,888,300 mN, Line 10260	2	*Anomaly primarily mapping contact between Bootu Creek and Attack formation units; probable area of manganese mineralisation.*
BCrk_VC-6	400,005 mE, 7,887,350 mN, Line 10310	4	*EM response and derived CDIs indicate a shallow, surficial anomalous feature and is a low priority.*
BCrk_VC-7	400,110 mE, 7,885,920 mN, Line 10380	4	*Similar to BCrk_VC-6. Some indication of manganese at surface However EM response is mostly early to mid time indicating shallow surficial anomaly. Low priority.*
BCrk_VC-8	403,400 mE, 7,884,510 mN, Line 10450	2-3	*While located in the Attack Formation, the complex folding of the extremity of the eastern arm of the syncline, coupled with known faulting to the north, has probably made this area more favourable for Mn mineralisation. Therefore a higher priority than* BCrk_VC-2
BCrk_VC-9	403,410 mE, 7,882,750 mN, Line 10540	1-2	*Anomaly located in extremity of the eastern arm of the syncline, within the Bootu Creek unit. Priority second to* BCrk_VC-1
BCrk_VC-10	397,890 mE, 7,880,100 mN, Line 10670	1?	*Anomaly is probably the western arm of the syncline, obscured by Attack Formation and/ or alluvial material. There is a possibility that manganiferous units might be in place if Bootu Creek Formation is present. Area may be favourable for mineralisation.*

These anomalies are prioritised using several factors:

1) Strength and nature of the EM response.

2) Relation to CDI depth slices; with a bias toward anomalies that are close to the surface end have depth extent.

3) Position of anomaly in relation to known geology, particularly in regard to structures enhancing deposition such as fold (mostly synclinal) noses.

4) Favourable / prospective host rock units (Bootu Creek type deposits).

5) Possible relation to known surficial manganese occurrence.

6) Known historical workings.

BOOTU CREEK TWO FIELD TRIP REPORT JULY 2012

All coordinates are given in MGA (GDA94) Zone 53

TARGET BCrk_VC-1

399593mE 7892208mN

Grey dolomite sub-outcrop under sandstone scree. Dolomite partly replaced by Mn and Fe oxides.

Sample BCII-12001

XRF reading (Mining Cu-Zn) #18: 5.29%Mn – 5.5%Fe – 0.16Cu

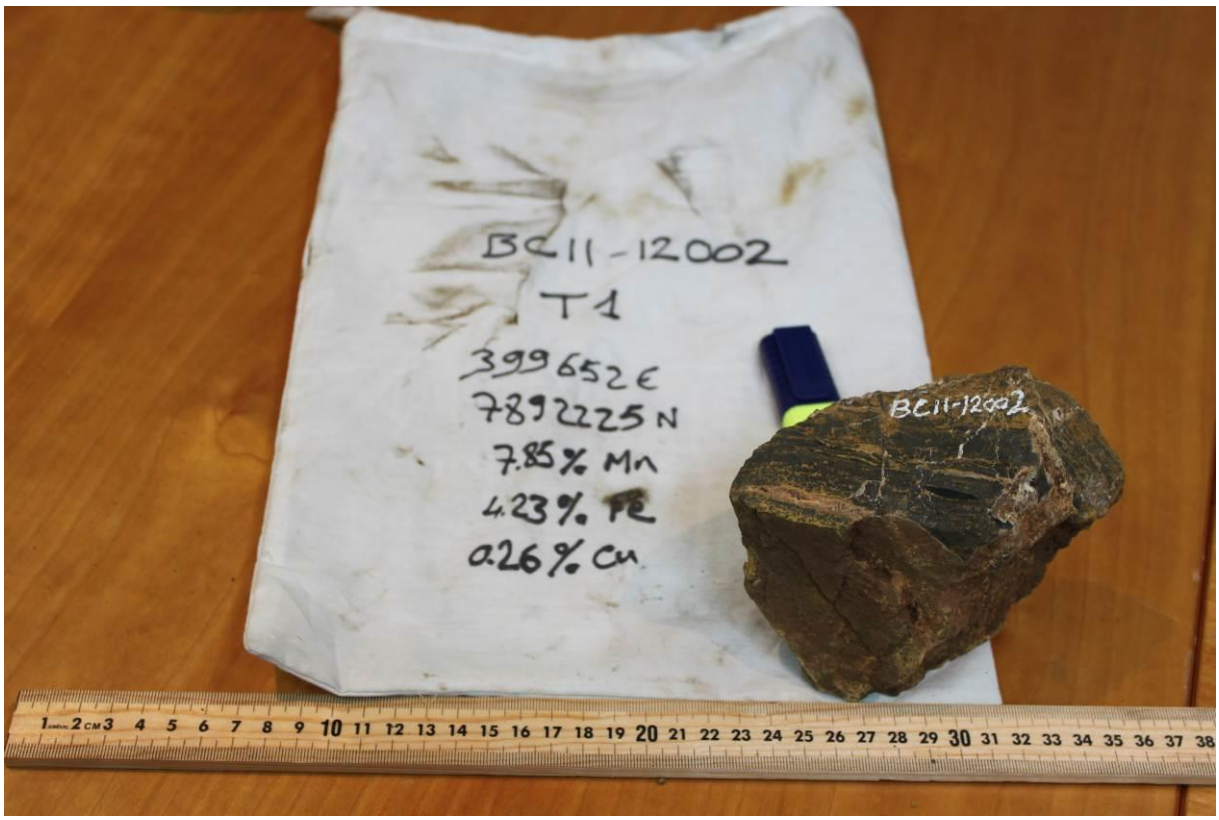
Sample BC11-12001- Manganese replacing dolomite in matrix

399652mE 7892225mN

Dolomite sub-outcrop in creek bed under sandstone scree. Dolomite is partly replaced by Mn and Fe oxides.

Sample BCII-12002

XRF reading (Mining Cu-Zn) #19: 4.23%Mn – 7.85%Fe – 0.257%Cu



Sample – BCLL-12002

TARGET BCrk_VC-2

401656mE 7889827mN

Manganese oxide stained dolomite. Manganese also occurs as veinlets and stringers filling fractures.

XRF reading (Mining Cu-Zn) #66: 4.96%Mn – 2%Fe

401697mE 7889737mN

Strong Fe oxide replacement in dolomite bed along strike from Mn replacement.

Sample BCII-12008

XRF reading (Mining Cu-Zn) #67: 4.9%Mn – 41.95%Fe – 0.8%Cu

TARGET BCrk_VC-3

No site of significance have been visually identified within the boundaries of this target.

TARGET BCrk_VC-4

Two sites have been identified to the east of target 4 approximately 250m and 550m outside the inferred anomaly boundary.

402088mE 7888237mN

Grey carbonate sub outcrop partly covered by sandstone scree.

XRF reading (Mining Cu-Zn) #51: 0.2%Mn – 1.1%Fe – 32%Ca

XRF reading shows that this carbonate is mostly limestone. This sub-outcrop shows that the carbonate units are present within the recessive topography. Topographic highs are armed by more or less silicified sandstone units.

402261mE 7888469mN

Dolomite unit with manganese and iron oxides replacement.

Sample BCII-12006

XRF reading (Mining Cu-Zn) #53: 5.64%Mn – 7.15%Fe

TARGET Bcrk_VC-5

397881mE 7887917mN

Black manganese-iron oxide sub-outcrop. Oxides occur as replacement within a carbonate. Sub-outcrop extends over a zone of 50m x 5m.

XRF reading (Mining Cu-Zn) #26: 6.79%Mn – 18.67%Fe

TARGET Bcrk_VC-6

400924mE 7887663mN

Interbedded manganese replaced dolomite beds and non-replaced carbonate beds. This site is located 500m to the ENE of the inferred target BCrk_VC-6 boundary.

Sample BCII-12007

XRF reading (Mining Cu-Zn) #56: 21.68%Mn – 2.95%Fe

Sample BCII-12007

399987mE 7887237mN

Iron oxide replacement in a dolomitic mudstone / siltstone bed. Outcrop in a creek bank.

XRF reading (Mining Cu-Zn) #60: 6.91%Mn – 20.18%Fe

399971mE 7887219mN

Iron +/- manganese oxide replacement in a dolomitic mudstone. Chemical zoning is clearly shown by the picture.

Outcrop in creek bank.

XRF reading (Mining Cu-Zn) #64: 3.30%Mn – 36.95%Fe

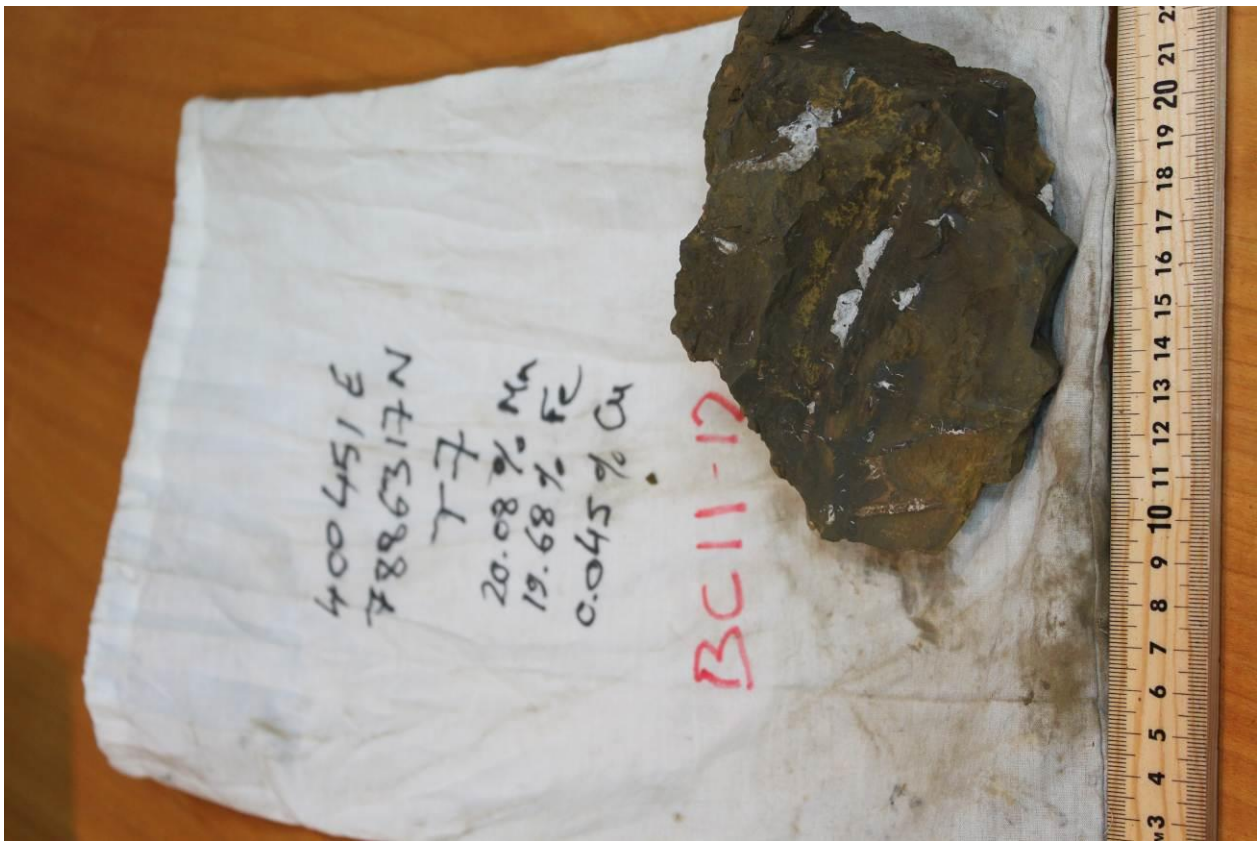
TARGET Bcrk_VC-7

400451mE 7886317mN

Manganese-Iron oxides replaced dolomite sub-outcrop in creek bed.

XRF reading (Mining Cu-Zn) #38: 20.08%Mn – 19.68%Fe

Sample BCII-12004



Sample BCII-12004 Dolomite with goethite and manganese mineralisation

400436mE 7886302mN

Manganese and Iron oxide replaced dolomitic mudstone outcrop in creek bank

XRF reading (Mining Cu-Zn) #39: 5.16%Mn – 41.17%Fe

TARGET Bcrk_VC-8

403452mE 7884898mN

Iron oxide replaced/enriched sandstone sub-outcrop.

XRF reading (Mining Cu-Zn) #43: 0.01%Mn – 51%Fe

403502mE 7884803mN

View looking towards N200 mag. Photo taken from a silicified sandstone ridge showing the recessive topography around the center of anomaly BCrk_VC-8.

On this photo the anomaly center is located in the middle of the valley, filled by sandstone scree and fine alluvium.

403386mE 7884621mN

Iron-manganese oxides replaced dolomite sub-outcrop. The sub-outcrop extends over a 2m x 10m zone.

XRF reading (Mining Cu-Zn) #44: 5.54%Mn – 39.8%Fe

TARGET Bcrk_VC-9

No sites of significance have been visually identified within the boundaries of this target.

TARGET Bcrk_VC-10

No sites of significance have been visually identified within the boundaries of this target.