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SOUTHERN GEOSCIENCE CONSULTANTS

MEMORANDUM

TO	Bill Guy, Bligh Resources Ltd.
FROM	David Mackay
DATE	2/07/2012
REPORT NO.	SGC2422
RE	Targeting of Manganese mineralization by the use of VTEM in the Bootu Creek 2 survey area.

Southern Geoscience Consultants (SGC) were asked to process and review the data acquired by a VTEM airborne EM survey flown in May 2012. This survey was undertaken to assess the Bootu Creek 2 area (near Tennant Creek, Northern Territory), for high grade manganese mineralization.

1 METHODOLOGY

Anomalies have been picked primarily from noting EM channel response profiles/peaks, which have strong to moderate expression in the early to mid time channels, and is usually characteristic of the range of responses and conductivities that may be present for high grade manganese mineralization. As the EM peaks are often broad and multi-peaked, distinct "bullseye" targets cannot be adequately determined. Instead, conductive targets are expressed as regions or zones; their locations are shown as light blue ellipses on accompanying diagrams. Locations mentioned in the summary (marked by Gold star on Mapinfo overlays and images) are the central point of these regions and should be thought of as a starting point for initial exploration. These targets 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 and 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.

2 RESULTS AND INTERPRETATION

EM responses for the survey are generally strong to moderate with two dominant zones to the west and east of the survey area showing material of high conductivity within the Morphett Creek Formation sediments. The central area has strong to moderate EM response and conductivity which successfully maps the stratigraphic contacts and faulting, particularly the contact between the Lower Bootu Creek and Attack Formations, which is geologically similar to where economically viable manganese deposits are located at the OM Holdings Bootu Creek operations (40km north of tenement). Similar to the setting found at Bootu Creek, the survey area is dominated by a northerly trending syncline comprising the Lower Bootu Creek unit. Surface mapping of faulting and the present VTEM survey results suggest a complex history of folding, faulting (including thrusting), with subsequent alluvial deposition over parts of the syncline to the south west. The structural setting may have generated conditions which could favour mineralisation deposition.

Ten anomalous areas have been identified as regions of possible interest after considering EM channel responses and conductivity depth images (CDIs); these are detailed below (see Figure 1 and 2). The current survey located sizable conductive zones in the eastern arm of the syncline (BCrk_VC-1, BCrk-3, BCrk_VC-4, and BCrk_VC-9), and these are considered high priority targets. From the shapes of the EM responses and CDIs these conductive anomalies are tabular, have consistent strike over several flight lines , lie close to the surface, are shallow dipping to the west (consistent with the synclinal folding) and have significant depth extent (~50m or greater). BCrk_VC-1 and BCrk_VC-9 are situated at structurally constricted points of the syncline (nose and end of eastern arm), which might have concentrated fluid movement and enhanced mineralization development. Both have manganese representation at surface, with BCrk_VC-1 the site of historical manganese mining/workings.

The western side of the syncline is not as strongly represented with significant EM responses inside the Bootu Creek unit. Instead responses are primarily mapping contacts between rock units (particularly the sandstone, and carbonate rock units found within the Attack Formation). CDIs suggest that these anomalies are confined near surface except for BCrk_VC-5 has similar characteristics to anomalous zones on the eastern side of the syncline; except that the anomaly is migrating east at depth. It is not known whether this anomalous zone is purely the contact between rock types or is found in the Lower Bootu Creek itself. As such its priority is less than BCrk_VC-1, BCrk-3, BCrk_VC-4, and BCrk_VC-9. The priority would be higher if the anomaly was located within the Lower Bootu Creek Formation.

The BCrk_VC-2 and BCrk_VC-8 targets sit near the Bootu Creek unit but within the Attack Formation. The Conductivity Depth Slices suggest that theses anomalies are surficial and less conductive than Bootu Creek positioned targets. Due to their location in a rock unit that is not known to host significant manganese at Bootu Creek, their assigned priority is low. However the CDIs indicate that BCrk_VC-8 might be the folded repetition of BCrk_VC-9 on the eastern edge of the syncline. If so, BCrk_VC-8 would therefore have a higher priority than target BCrk_VC-2. BCrk_VC-7 is a similar type target with low priority; however it is not included with BCrk_VC-2 and BCrk_VC-8 due to its placement in a separate rock unit.

BCrk_VC-6 is probably surface conductive material and of lowest priority.

The BCrk_VC-10 conductor is close to surface and may be within a fold along the western arm of the Bootu Creek syncline, obscured by Attack Formation material. As the area is blanketed by alluvial cover the actual source of the anomaly has not been resolved. The conductive zones strike in a northerly direction. The extent of this material expands eastward at later times. The conductive zone is not closed off at the southern edge of the VTEM survey.

3 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.*

4 CONCLUSIONS AND RECOMMENDATIONS

The VTEM survey has been very successful in mapping the stratigraphy and structure within the Bootu Creek Formation dominated syncline. Several Bootu Creek type anomalies have been identified and targeted within the eastern arm of the syncline. Their location and EM signature make them favourable targets for manganese mineralization, warranting follow up exploration.

It is recommended that the CDI dataset be compiled into a 3D model. This would allow for better visualization and understanding of the dip conductive body positions and depth extents. Also the EM responses of the higher priority targets should be modelled in Maxwell prior to the implementation of any drilling programme to refine positions, dips, depth from surface and depth extent of the conductive body.

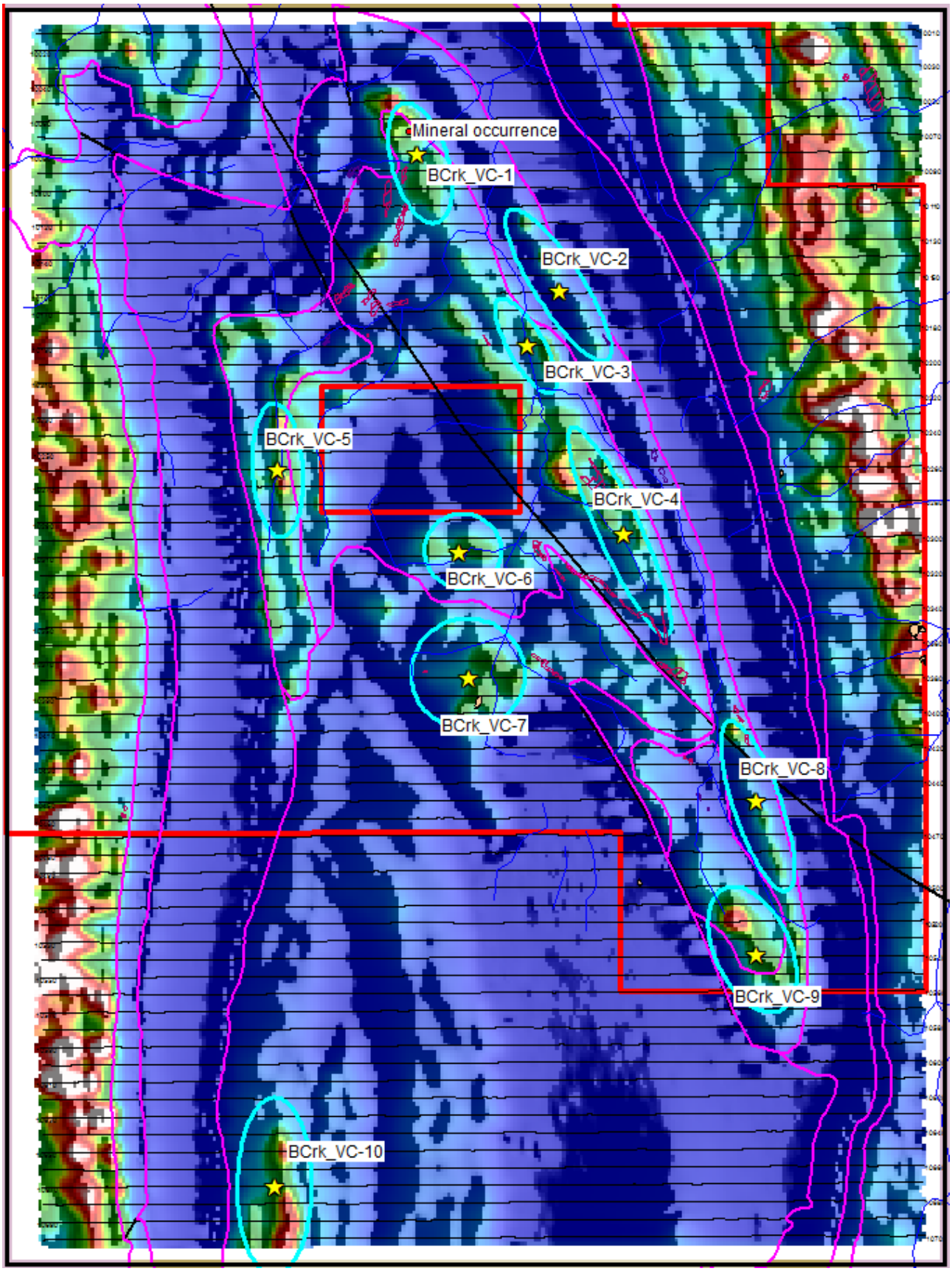

Figure 1 Anomalous target areas (blue ellipses) over channel 20 dB/dt EM response

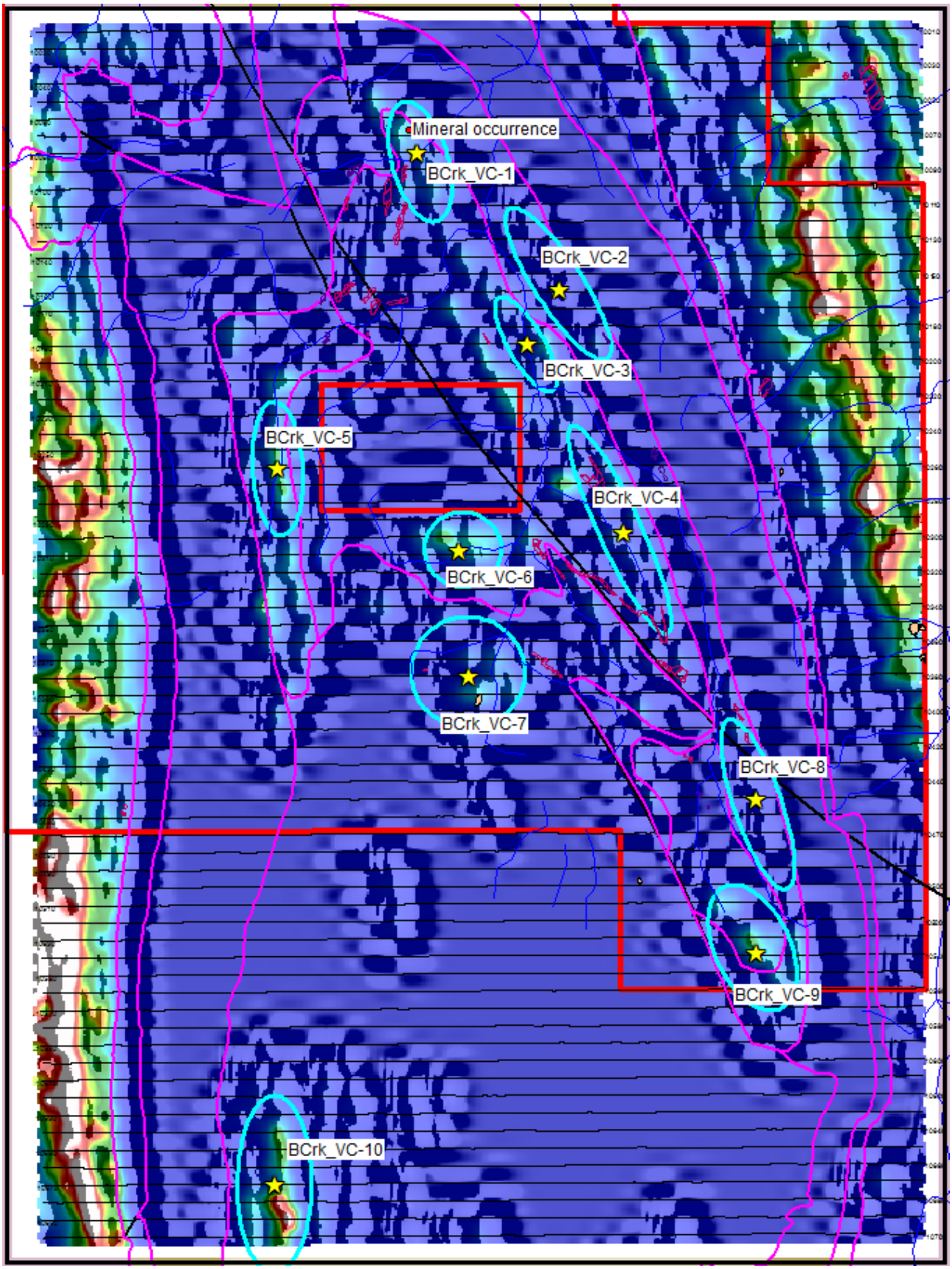

Figure 2 Anomaly targets over Conductivity depth slice @ 20m depth.

