



HIGH ORDER VTEM ANOMALIES IDENTIFIED AT RED BULL

KEY POINTS

- Numerous electromagnetic anomalies identified from initial Red Bull VTEM survey
- 4 high order anomalies represent immediate targets for follow up, 3 of these have coincident magnetic anomalies
- Infill VTEM lines currently being flown over the 4 high order anomalies

Sheffield Resources (“Sheffield”, “the Company”) (ASX:SFX) today announced the identification of four high order anomalies from the first pass VTEM airborne electromagnetic (EM) survey undertaken at its Red Bull Project. Red Bull is located within 20km of Sirius Resources NL’s (ASX:SIR) recent Nova nickel-copper discovery in the newly identified Fraser Range Nickel Province in Western Australia (Figure 3).

Geophysical consultants, Southern Geoscience Consultants have identified four high order EM anomalies (RB_VA1 to 4 – Figures 1 & 2), three of which show correlation with magnetic anomalies. Over ten second order VTEM anomalies have been defined, which will require further detailed assessment of the data and infill results to rank them accordingly (Figure 1).

A program of infill VTEM surveying is underway to reduce the line spacing over these anomalies to 100m.

Managing Director, Bruce McQuitty said the early results provide Sheffield with immediate targets for follow up work.

“While it is early days, to have four high-order anomalies generated from the first VTEM survey at Red Bull is an exciting result, and provides an immediate focus for ground based work.”

“Follow-up reconnaissance of these targets will begin immediately.”

“Interpretation of the survey data is ongoing and is likely to generate further targets.”

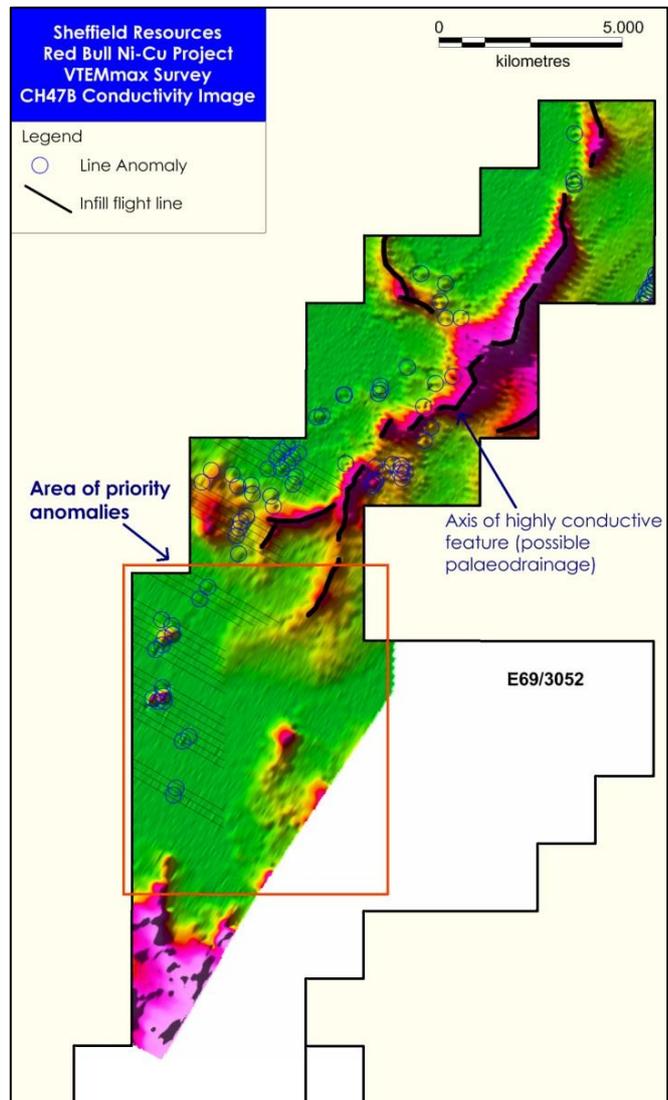


Figure 1: Late Channel B-Field EM Imagery from the Red Bull VTEM survey, anomalies and planned infill lines.

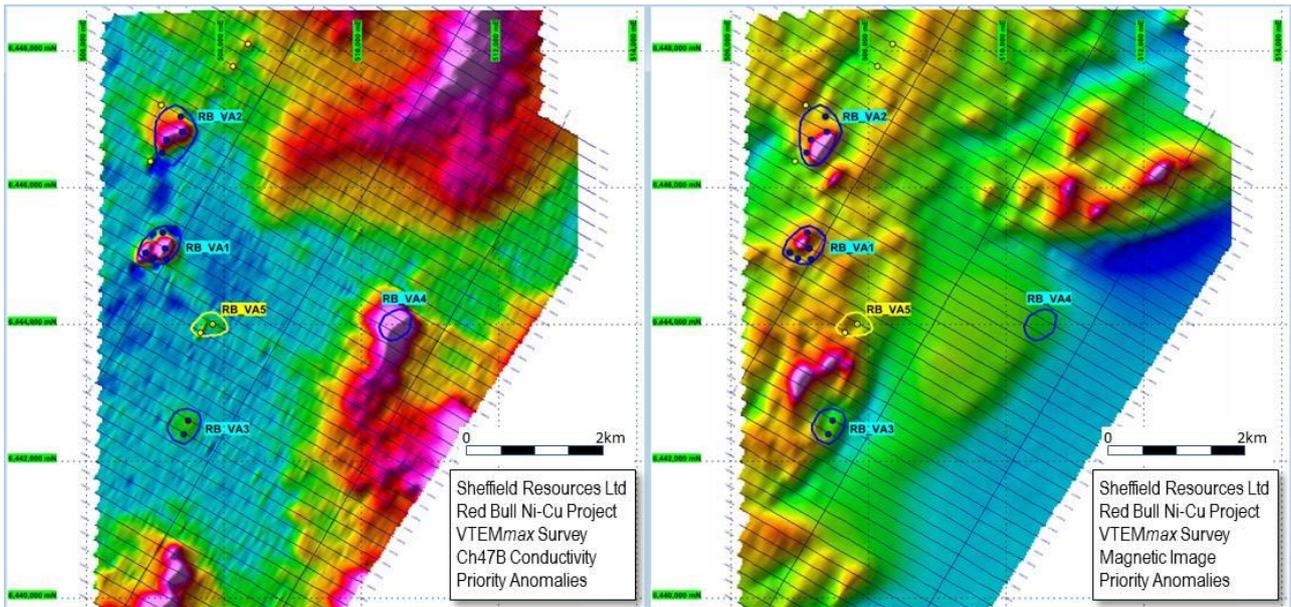


Figure 2: Late Channel B-field EM (left) and TMI magnetics (right) within the area of high-order priority targets RB_VA1 to RB_VA4. Note the correlating magnetic anomalies for targets RB_VA1 to 3.

Sheffield engaged Southern Geoscience Consultants (SGC) to design and manage the programme, and provide data processing and interpretation services. Preliminary comments from SGC on the priority anomalies identified to date (Figure 2) are as follows:

- **RB_VA1** – Strong, high amplitude VTEM anomaly apparent over two main survey lines, strike ~200-400m. Source is likely to be at shallow depth <100m. Clear relationship to a local magnetic anomaly.
- **RB_VA2** – Moderate-Strong VTEM anomaly apparent over two main survey lines, strike ~200-400m. Source is likely to be at shallow-moderate depth ~100m+. Clear relationship to a local magnetic anomaly.
- **RB_VA3** – Moderate-Strong, low amplitude VTEM anomaly apparent over two main survey lines, strike ~200-400m. Source is likely to be at moderate-deep level >>100m. Clear relationship to the margin of a local circular magnetic anomaly/ potential intrusive body.
- **RB_VA4** – Moderate-Strong VTEM anomaly apparent over 3-4 main survey lines, strike >400m. Source is likely to be at moderate depth level ~100m+. Appears to be situated along the margin of a broad, deep seated magnetic body.

The additional lower-order anomaly shown in area (RB_VA5) is a possible localised bedrock anomaly; infill surveying will assist confirming whether this is of interest or a second order target.

Areas of high conductivity, likely to be related to palaeodrainage features are apparent in the data (Figure 1). In these areas the VTEM effectiveness is limited, however ground based EM methods will be considered to survey areas of geological interest as a second phase.

VTEM Survey details

The 144km² VTEM survey targeted prospective mafic and ultramafic sequences of the Fraser Complex beneath shallow transported cover in the northern half of tenement E69/3052 (which is pending grant). Sheffield initially planned surveying at 100m line-spacing over the northern half of the target area, and 200m line spacing in the south for a total 1,112.8 line km. Following identification of priority anomalies in the south, an additional 90 line km of infill lines were designed and are currently being surveyed. Only preliminary datasets have been received to date.

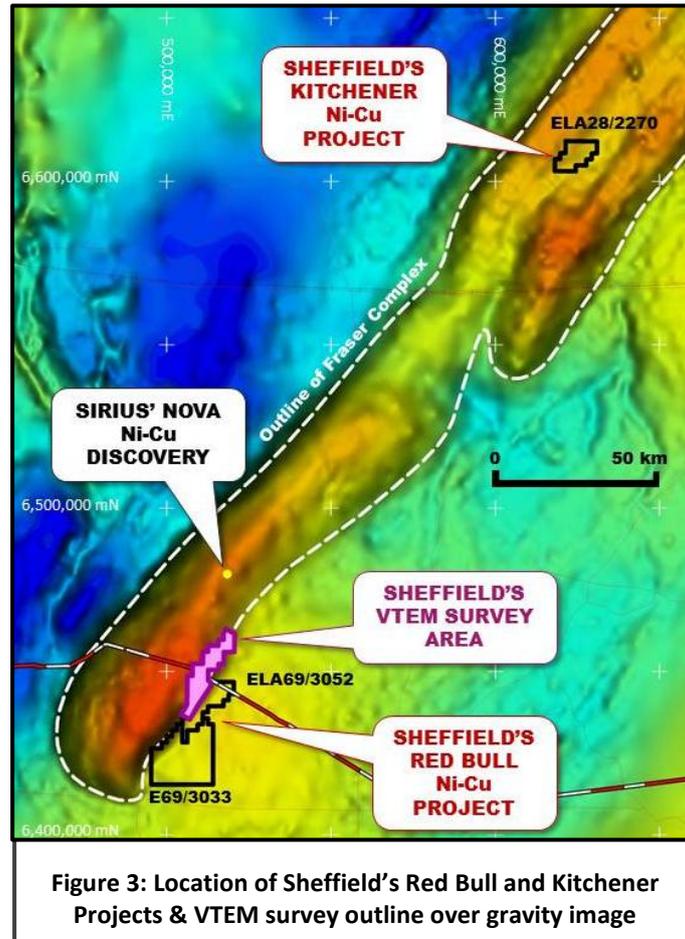


Figure 3: Location of Sheffield's Red Bull and Kitchener Projects & VTEM survey outline over gravity image

ENDS

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COMPETENT PERSONS' STATEMENT

The information in this announcement that relates to exploration results is based on information compiled by David Archer. Mr Archer is a full time employee of the Company. Mr Archer is a Member of the Australasian Institute of Geoscientists and has sufficient experience which is relevant to the style of mineralisation and type of deposit under consideration and the activity to which they are undertaking to qualify as Competent Person as defined in the 2004 Edition of the 'Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves ("JORC Code")'. Mr Archer consents to the inclusion in the report of the matters based on their information in the form and context in which it appears.

FORWARD LOOKING AND EXPLORATION TARGET STATEMENTS

Some statements in this announcement regarding estimates or future events are forward-looking statements. They involve risk and uncertainties that could cause actual results to differ from estimated results. Forward-looking statements include, but are not limited to, statements concerning the Company's exploration programme, outlook, target sizes and mineralised material estimates. They include statements preceded by words such as "expected", "planned", "target", "scheduled", "intends", "potential", "prospective", "strategy" and similar expressions.

ABOUT SHEFFIELD RESOURCES

Sheffield Resources Limited (**Sheffield**) is a rapidly emerging heavy mineral sands (HMS) company.

ASX Code – SFX

Market Cap @ 48cps - \$47.2m

Issued shares – 98.4m

Cash - \$7.3m (at 30/9/2012)

The Company has over 6,000km² of highly prospective tenure, all situated within the state of Western Australia.

HEAVY MINERAL SANDS

The Dampier project, located near Derby in WA's Kimberley region, contains the large, high grade zircon-rich Thunderbird HMS deposit.

The Eneabba project comprises multiple HMS deposits and is located near Eneabba approximately 140km south of the port of Geraldton in WA's Mid-West region.

Sheffield is also evaluating the large McCalls chloride ilmenite project, located 110km to the north of Perth.

NICKEL-COPPER

Sheffield's 525km² Red Bull project is located in the highly prospective Fraser Complex within 20km of Sirius Resources NL's (ASX:SIR) Nova Ni-Cu discovery.

IRON

Sheffield has identified iron mineralisation on three of its tenements in the Pilbara iron ore province. Thick hematite mineralisation was intersected in first pass RC drilling at the Three Pools project, 20km north of Newman.

TALC

Sheffield's large Moora Talc Belt project contains numerous talc occurrences and is located near Imerys' long-life Three Springs talc mine in WA's Mid-West region. The Company is targeting high purity talc, similar to that produced from the simple quarrying operation at Three Springs.