

**ASX and Media Release**

**19 November 2012**

**VTEM COMMENCED IN FRASER RANGE NICKEL PROVINCE**

**KEY POINTS**

- **VTEM survey commenced over prospective 144km<sup>2</sup> target area within 20km of the recent Nova nickel-copper discovery**
- **Survey to provide a first pass test for sulphide mineralisation over the 8km long Ni-Cu-Co anomalous trend identified at Red Bull**
- **New tenement application expands footprint in the Fraser Range Nickel Province**

Sheffield Resources (“Sheffield”, “the Company”) (ASX:SFX) is pleased to announce the commencement of a VTEM airborne electromagnetic survey at its Red Bull Project, 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 1).

The 525km<sup>2</sup> Red Bull project comprises two exploration licences, the northernmost of which remains under application.

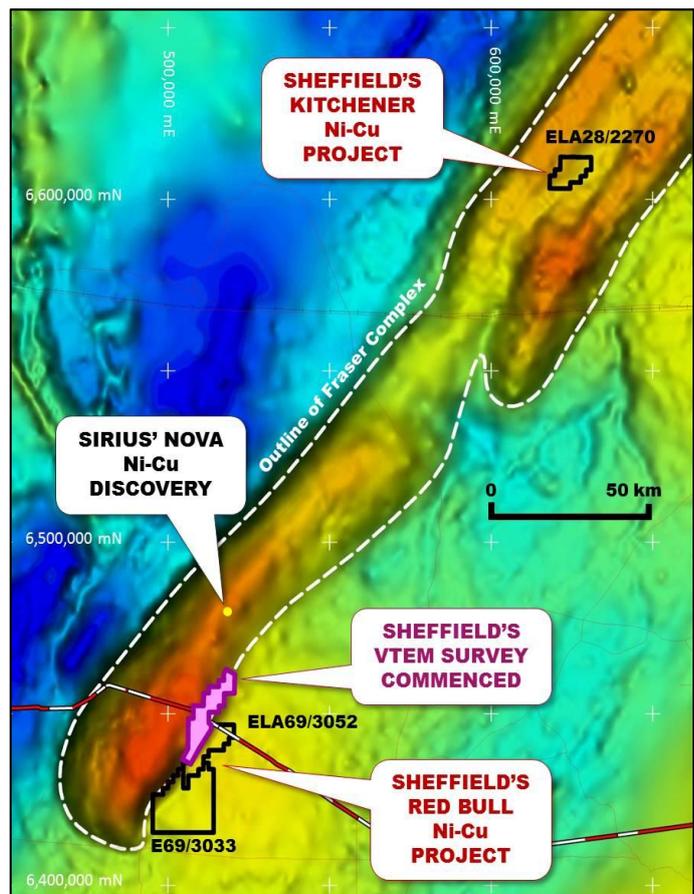
The VTEM survey (Figures 2 & 3) will target prospective mafic and ultramafic sequences of the Fraser Complex beneath shallow transported cover over an area of 144km<sup>2</sup>.

Within the target zone, Sheffield has identified an 8km long Ni-Cu-Co anomalous trend from a review of historic aircore drilling results (see ASX release dated 24 September 2012).

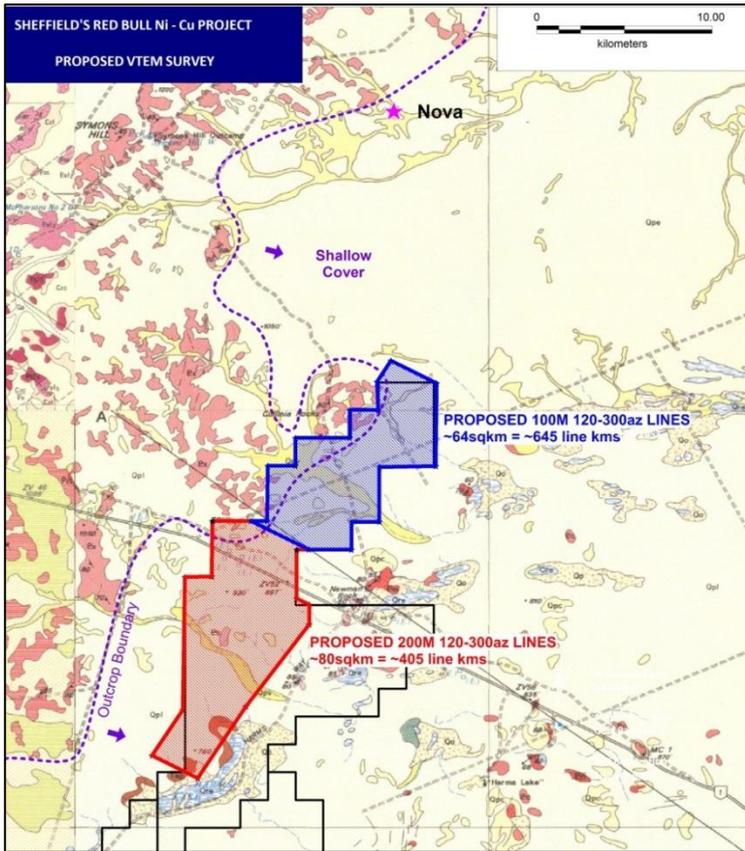
Within this anomalous trend, nickel values in the weathered bedrock commonly exceed 0.1% Ni over widths of 190m to 280m, with maximum values of 0.34% Ni, 670ppm Cu, 320ppm Co, 15ppb Pt, 21ppb Pd and 41ppb Au.

The VTEM survey will accelerate Sheffield’s exploration for Ni-Cu sulphide mineralisation at Red Bull. Processing of the survey data is expected to be completed in Q1 2013.

Sheffield recently expanded its tenement holding in the Fraser Range nickel province to 608km<sup>2</sup> with a new tenement application, ELA28/2270 (“Kitchener”). The Kitchener tenement is located 160km northeast of Nova and overlies part of the Fraser Complex (Figure 1).



**Figure 1: Location of Sheffield’s Red Bull and Kitchener Projects & VTEM survey outline over gravity image**



**Figure 2: Proposed VTEM survey over GSWA geology relative to Sirius' Nova discovery. GSWA geology map showing the extent of cover (yellow-pale yellow) over Proterozoic basement (pink-red).**



**Figure 3: Example of Geotech's VTEM system in action (photo courtesy of Geotech Airborne Pty Ltd).**

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 @ 55cps - \$54.1m

Issued shares – 98.4m

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

The Company has over 6,000km<sup>2</sup> 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 525km<sup>2</sup> 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.