

## **ASX and Media Release**

27 July 2011

# SHEFFIELD HMS UPDATE: NORTH PERTH BASIN

## **KEY POINTS**

- TZMI appointed to carry out scoping studies on HMS projects in North Perth Basin
- Updated drilling and resource estimation schedule for HMS projects in North Perth Basin

**Bulk minerals explorer Sheffield Resources ("Sheffield") (ASX:SFX)** today announced it has appointed leading mineral sands consultancy, TZMI, to undertake scoping studies on its advanced North Perth Basin HMS projects.

It is expected that these studies will commence in Q4 2011 to allow for delivery of assays and JORC resource estimation in accordance with the following updated timetable (Table 1).

Managing Director Bruce McQuitty said that the appointment demonstrated the Company's confidence in the potential development of these assets in a region that is historically well known for its HMS endowment.

"We also note with interest Iluka Resources' announcement yesterday that it plans to resume its mothballed HMS mining and processing operations at Eneabba in the North Perth Basin, underpinning our confidence in our own projects in the region and the global mineral sands market," Mr McQuitty said.

Iluka said in a statement yesterday that its resumption of mining activities at Eneabba and restart of the Synthetic Rutile kiln is a direct response to the supply constrained high grade titanium dioxide and zircon markets.

Sheffield acquired three mining leases and a retention licence from Iluka earlier this year (ASX Announcement 11 March 2011), including two advanced HMS exploration projects near Eneabba, namely the West Mine North and Ellengail projects (Figure 1).

Managing Director Bruce McQuitty said that Sheffield's Yandanooka, West Mine North, and McCalls HMS targets are known to contain high grade titanium dioxide ilmenite potentially suitable for Synthetic Rutile feedstock.

JORC resources will be estimated on these targets prior to the commencement of scoping studies (Table 1).

#### Talc update

A talc diamond drilling program of 1,238m was completed during June 2011. The programme returned significant talc intersections from four of the six targets tested (see ASX release 27 June 2011). Sampling and processing of the drill core has subsequently been completed. Samples will be submitted for XRF analysis and brightness measurements to determine the suitability of the talc for various end use applications. The results of this work are expected by mid-September.

#### ENDS

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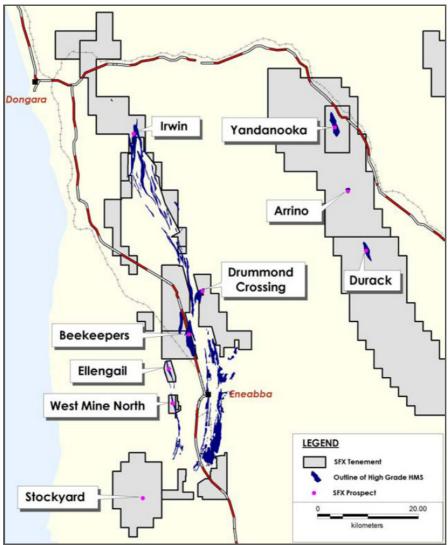
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Project	Drilling status	Assay timetable	<b>Resource Estimation</b>	Scoping Study
Yandanooka	130 holes completed	Results received (see ASX release 16 May 2011)	Commenced, results due early August 2011	Commence October 2011
Ellengail	Compilation of historic drilling completed	Not applicable	Commenced, results due August 2011	Commence October 2011
West Mine North	90 holes completed	Results due early August, 2011	Commence August, results due September 2011	Commence October 2011
McCalls	30 holes completed	Results due early August, 2011	Commence August, results due October 2011	Commence October 2011
Irwin	31 holes completed	Results due September, 2011	N/A	N/A
Drummond Crossing	30 holes completed	Results due September 2011	N/A	N/A
Other projects	Rig secured to drill new targets in October /November 2011	N/A	N/A	N/A

#### Table 1 – Drilling and Resource Estimation Schedule

Note - these dates are indicative only and remain subject to possible delays arising from laboratory assay and other factors



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Figure 1: Location of HMS Projects in the North Perth Basin

#### 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", "seek" and similar expressions. The terms "Direct Shipping Ore (DSO)", "Target" and "Exploration Target", where used in this announcement, should not be misunderstood or misconstrued as an estimate of Mineral Resources and Reserves as defined by the JORC Code (2004), and therefore the terms have not been used in this context. Exploration Targets are conceptual in nature and it is uncertain if further exploration or feasibility study will result in the determination of a Mineral Resource or Reserve.

#### ABOUT SHEFFIELD RESOURCES

Sheffield Resources Limited (**Sheffield**) is a new exploration company with a bulk minerals focus. The Company's Projects are geared towards the steel industry feed cycle (iron ore and tungsten) and the emerging fillers-ceramics-pigments cycle (talc, zircon, titanium dioxide).

ASX Code – SFX	Market Cap @ 26cps - \$15.2m
Issued shares – 58.3m	Cash - \$4.1 (approx.)

The Company has over 6,000km<sup>2</sup> of highly prospective tenure, all situated within the state of Western Australia.

## TALC

Sheffield has 1,152km<sup>2</sup> of tenure over the 175km-long Moora Talc Belt which represents a dominant ground position over a region that has, for the last 50 years, been exclusively controlled by major mining companies.

The Moora Talc Belt includes the large Three Springs mine which is owned by Rio Tinto Limited subsidiary Luzenac Australia Pty Ltd. Three Springs is renowned for producing high purity talc and is a relatively simple "dig-and-deliver" operation.

The existing infrastructure is excellent. A railway and a sealed highway transect the project and connect to Geraldton port approximately 170km to the northwest.

Sheffield's large tenement holding contains numerous talc occurrences and has the potential to become a strategic talc asset. Sheffield therefore represents a unique opportunity for investors to gain exposure to one of the few high-grade talc explorers in the world.

### HEAVY MINERAL SANDS

Sheffield controls over 5,000km<sup>2</sup> of mineral sands tenure in the established North Perth Basin mineral sands province and the emerging Carnarvon, Eucla and Canning Basin provinces.

Sheffield's North Perth Basin tenement package of over 2,500km<sup>2</sup> contains seven advanced exploration projects: West Mine North, Ellengail, Yandanooka, Durack, Beekeepers, and Irwin which are located near Eneabba and the large McCalls deposit - a former BHP project located near Gingin. These projects are well located close to existing mineral sands operations and to a network of highways and railway lines connecting to Geraldton and Fremantle/Kwinana ports. Sheffield's strategy is, subject to exploration success, to build multiple HMS projects capable of supporting a flexible mobile mining plant.

## IRON

Sheffield's Pilbara iron ore projects consist of five granted tenements and 12 tenement applications, of which three are second-in-time applications and five are subject to ballot with multiple competing parties. Sheffield's strategy is to target hematite mineralisation adjacent to infrastructure in the world class Pilbara iron province and to build up consolidated tenement holdings over time. Reconnaissance mapping has so far identified iron enrichment on three of the Company's tenements.