



SheffieldResources LIMITED

Sheffield Resources Ltd
ACN 125 811 083
L1, 57 Havelock Street West Perth WA

23 April 2015

QUARTERLY REPORT FOR PERIOD ENDING 31 MARCH 2015

HIGHLIGHTS

Thunderbird HMS project

- PFS nearing completion and targeted to be released in next few weeks
- Sheffield granted preferred proponent status for bulk commodity handling at Derby wharf
- Thunderbird designated a Level 2 Lead Agency Project Proposal by the WA Department of Minerals and Petroleum
- Excellent results from processing of 12.5t bulk sample using full-scale process equipment
- Overall recovery of zircon increased by 5% (to 67%), with primary zircon constituting 80% of recovered zircon
- Significant positive results in relation to tailings co-disposal testwork, geotechnical investigations and hydrogeological studies
- Exceptionally high grade results from infill drilling in shallow up-dip region of deposit – to be incorporated into mineral resource and PFS updates in H2 2015
- Exploration drilling on broader Dampier project outlines three new mineral sands discoveries with high value mineral assemblage

Fraser Range Nickel project

- Ground EM surveys in progress at Red Bull and maiden scout aircore drilling program completed at Big Bullocks – results expected Q2 2015

Cash Position

- Net cash position increased by \$1m from previous quarter
- Agreed to sell Oxley potash project tenements to Centrex Metals Ltd for \$2.5m – a \$1m deposit was received during the quarter, with the remaining \$1.5m due on completion
- \$1.5m was received from the Company's Research & Development Tax Return

As at 31/03/15:

Issued Shares	134.4M	ASX Code	SFX	Closing Price	\$0.73
Market Cap	\$98.1M	Cash Reserves	\$5.7M		

SUMMARY

During the quarter, the Company maintained its operational focus on its flagship Thunderbird Mineral Sands project.

Considerable progress was made on the Thunderbird Pre-feasibility Study (PFS) which is now close to completion. Metallurgical, process engineering, geotechnical, hydrogeological and tailings co-disposal aspects of the PFS have been completed and reported, with positive results.

In other significant developments, Sheffield was granted preferred proponent status for a bulk commodity handling area at the Derby wharf and Thunderbird was designated a Level 2 Lead Agency Project Proposal by the WA Department of Minerals and Petroleum.

Excellent results were obtained from infill drilling at Thunderbird and scout exploration drilling on the Dampier project.

Ground EM and aircore drilling programs were undertaken for nickel in the Fraser Range, with results pending.

Exploration expenditure for the quarter is \$1,455,000.



Figure 1: Location of Sheffield's Projects

THUNDERBIRD MINERAL SANDS

Sheffield's flagship Thunderbird mineral sands project is located near Derby in Western Australia (Figures 1 & 2).

The Thunderbird Scoping Study, released on 14 April 2014, demonstrated the project has the potential to generate strong cash margins from globally significant levels of production over an initial 32-year mine life.

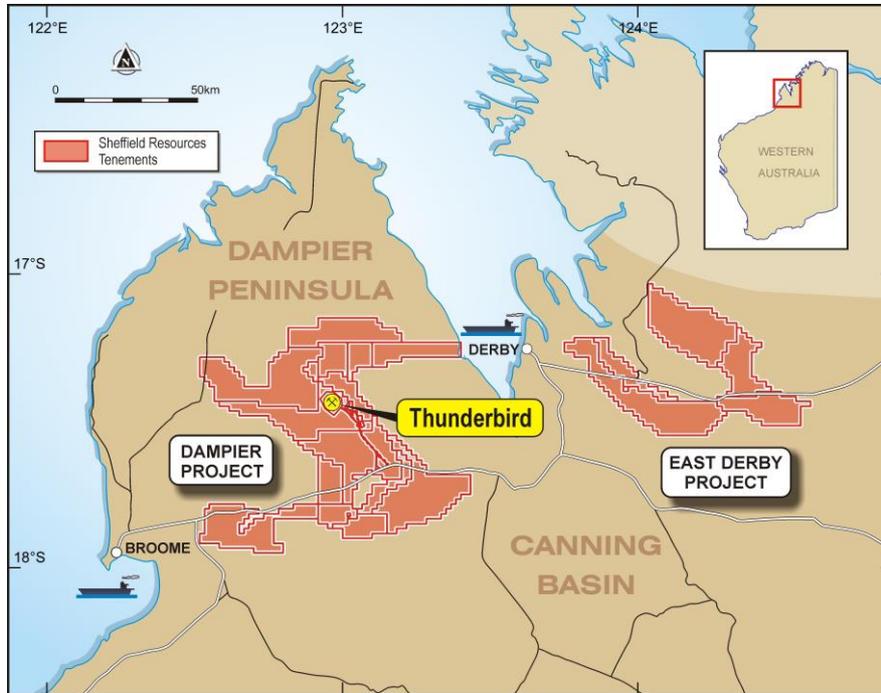


Figure 2: Location of Thunderbird HMS project

Thunderbird has mineral resources of **3.2Bt @ 6.8% HM** (Measured, Indicated and Inferred) (at 3% HM cut-off), containing 95Mt of valuable heavy mineral (VHM), including 19.3Mt of zircon (Appendix 1, refer to ASX release dated 12 December 2015 for full details).

Within this is a coherent high grade zone of **1.080Bt @ 11.8% HM** (Measured, Indicated and Inferred) (at 7.5% HM cut-off), containing 10.0Mt of zircon, 3.1Mt of high-titanium leucoxene, 2.8Mt of leucoxene and 36Mt of ilmenite. This is a 46% increase in the high grade component from the previous March 2014 resource used in the Scoping Study.

The high in-situ VHM grades for this zone of 0.92% zircon, 0.28% high-titanium leucoxene, 0.25% leucoxene and 3.3% ilmenite place Thunderbird in the top tier of mineral sands deposits globally.

Infrastructure and Permitting

Following an expression of interest process, the Shire of Derby/West Kimberley Council granted Sheffield preferred proponent status for a bulk commodity handling area at the Derby wharf. The Company has an exclusive 6 month period to negotiate lease area and terms of lease to the satisfaction of Council and Western Australia's Minister for Transport (see ASX release dated 2 March 2015).

The bulk commodity handling area is to include the exclusive use of part of the Southern Wharf abutment and parts of the main sublease area and car park (Figure 3).

This is an important step towards securing an export facility and will allow Sheffield to undertake its feasibility studies with greater confidence.

The Derby wharf has previously been used to export base metal concentrates from Western Metals' Lennard Shelf operations. That operation utilised a conveyor system to transport product to the wharf for loading onto barges (barging is required due to the high tidal ranges in King Sound). Each barge carried 5,000t of product approximately 20 nautical miles north of Derby for sea

transfer onto larger vessels. Up to 500,000t per annum was exported in this manner. Sheffield is proposing to use a similar system for the loading and shipment of its mineral sands products.

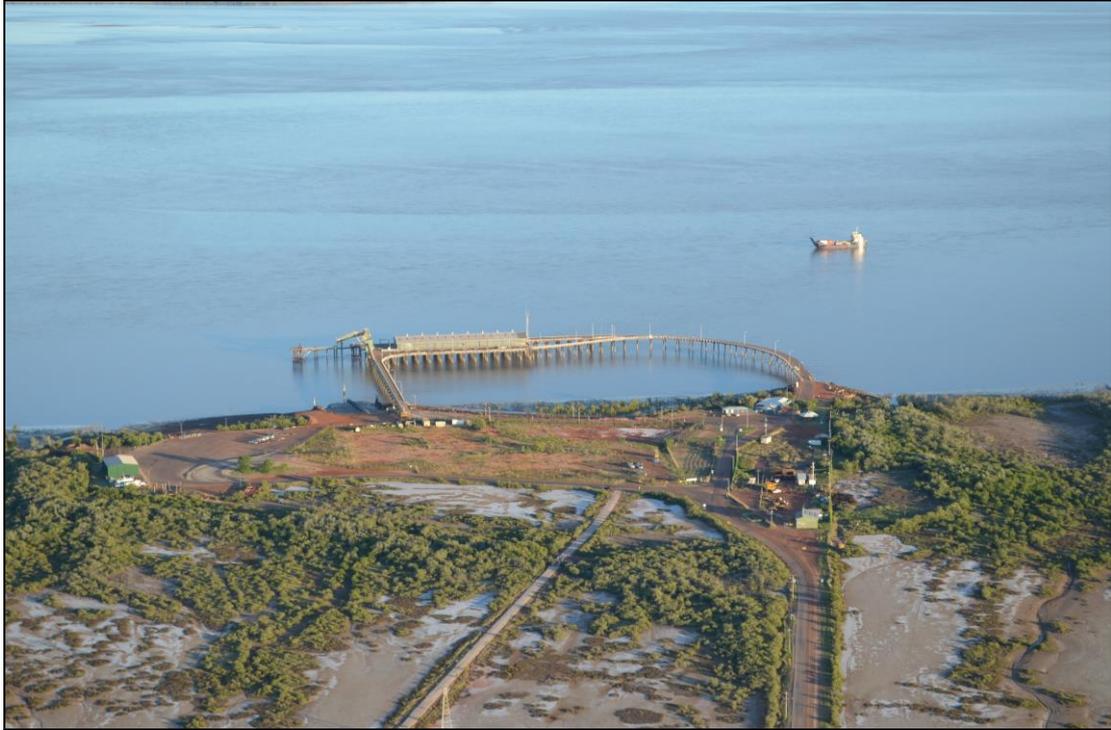


Figure 3: Derby wharf and precinct

The Thunderbird mineral sands project has been assessed and designated a Level 2 Lead Agency Project Proposal by the WA Department of Minerals and Petroleum (“DMP”).

This means the DMP will advise and assist the Company with coordination of approvals across other WA Government agencies during the pre-submission and submission stages of the Project proposal.

The Lead Agency status is an acknowledgement of the significance of the Thunderbird project to the State and the West Kimberley region.

Sheffield has commenced the native title negotiation process with respect to the Thunderbird mining lease application M04/459.

Thunderbird Pre-feasibility

The Thunderbird PFS is nearing completion, with results expected in the next few weeks.

During the quarter, the Company provided a PFS progress update which included the results of metallurgical testwork, process engineering, tailings co-disposal testwork, geotechnical and groundwater investigations (see ASX release dated 16 March 2015).

Metallurgical testwork was undertaken by Robbins Metallurgical on a 12.5 tonne bulk sample composited from closely-spaced drilling in the up-dip region of the Thunderbird deposit. This follows earlier process flowsheet testwork on 6 tonne and 5 tonne bulk samples during the Scoping Study.

The testwork, using full-scale and scalable equipment, achieved higher recoveries of all products compared to those obtained from earlier Scoping Study testwork. The overall zircon recovery increased by 5% (to 67%) with primary zircon constituting 80% of recovered zircon. This is particularly significant as zircon is expected to be the main revenue driver for the project.

Tailings co-disposal testwork indicates polymer treated tails achieve high consolidation rates with low flocculant dosages. High water recovery from tailings is expected and this is likely to result in a reduced operational footprint requirement for tailings disposal and faster environmental rehabilitation.

Geotechnical investigations were undertaken by geotechnical consultants ATC Williams using data collected from 20 sonic core drill holes completed in H2 2014. The results confirm the amenability of the deposit to mining with conventional equipment. Positive results were also obtained from trafficability, permeability and pit slope stability studies.

Hydrogeological consultants Pennington Scott completed a 'H3' Hydrogeological Assessment to support the Company's Section 5C application to the Department of Water to abstract water from the aquifer underlying the Thunderbird deposit. Testing indicates the water is of good quality. The Section 5C Application has been submitted to the Department of Water.

Infill drilling

Exceptionally high grade results were obtained from an infill drilling program in the up-dip region of the Thunderbird deposit. The results relate to 51 infill aircore drill holes completed during October 2014 and include the following intersections:

- **18m @ 21.3% HM** from 0m (THAC528)
- **15m @ 19.5% HM** from 1.5m (THAC526)
- **12m @ 19.2% HM** from 0m (THAC539)
- **16.5m @ 18.9% HM** from 1.5m (THAC529)
- **12m @ 18.9% HM** from 0m (THAC548)
- **21m @ 18.8% HM** from 7.5m (THAC544)

(>7.5% HM cut-off, refer ASX release dated 9 February 2015 for full details).

The drilling targeted a high grade, up-dip portion of the deposit currently scheduled for early production years. This area of approximately 3km² has now been drilled on a 125m x 250m pattern, confirming excellent continuity of grade and consistent widths of mineralisation (Figure 4).

These drill results were not available in time for inclusion in the PFS, which will be based on the December 2014 resource, however they have potential to be of significant benefit to the project economics and will be incorporated into resource and PFS updates scheduled for H2 2015.

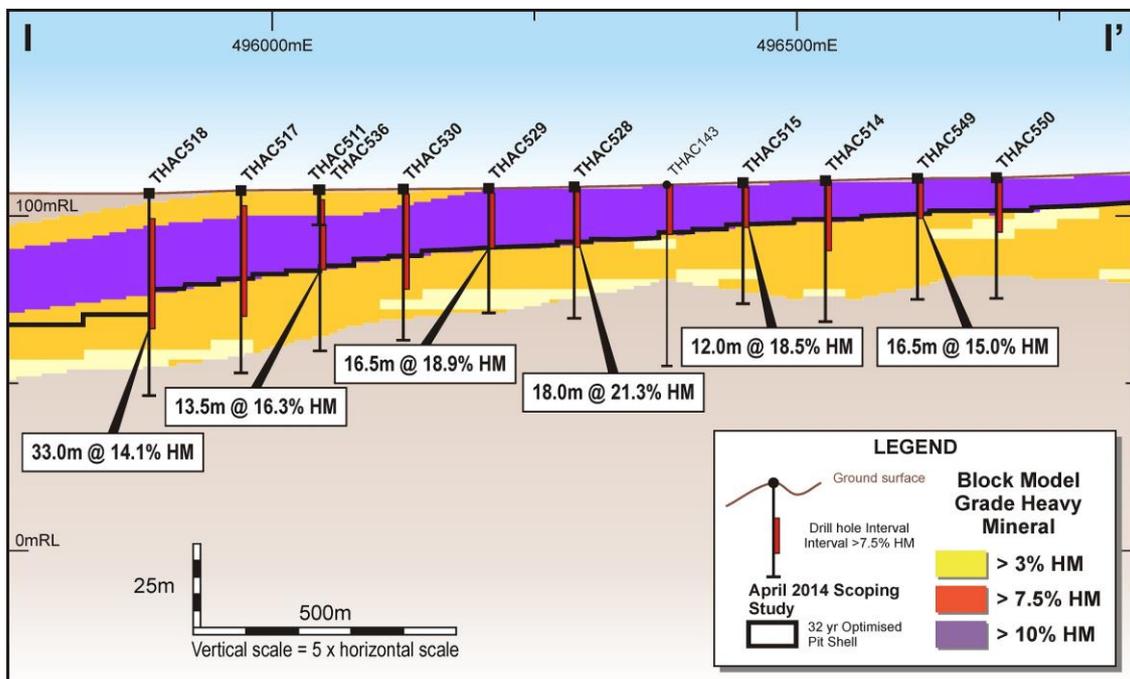


Figure 4: Cross section looking NW through up-dip part of Thunderbird deposit with infill drilling results

DAMPIER REGIONAL MINERAL SANDS

Sheffield's regional exploration strategy on the Dampier Peninsula is to target high grade, shallow deposits with high value mineral assemblage which may compliment the Thunderbird project and enhance its already strong economics.

Results were returned from a 3,000m reconnaissance aircore drilling program, undertaken in October 2014, which targeted interpreted palaeoshoreline positions to the north and south of Thunderbird.

The drilling resulted in three new mineral sands discoveries named Night Train, Nomad and Seagull. Significant results from each prospect include:

Night Train (northern end)

- **9m @ 6.33% HM** from 22.5m (DAAC052), including **7.5m @ 7.23% HM** from 24m
- **7.5m @ 4.08% HM** from 18m (DAAC048)
- **4.5m @ 2.69% HM** from 12m (DAAC050)
- mineral assemblage: 15% zircon, 16% ilmenite, 53% leucoxene and 8% HiTi leucoxene

Nomad

- **15m @ 2.51% HM** from 30m (DAAC021), including **4.5m @ 4.48% HM** from 34.5m
- **13.5m @ 2.99% HM** from 34.5m (DAAC022), including **6m @ 4.81% HM** from 36m
- **15m @ 2.67% HM** from 31.5m (DAAC027), including **4.5m @ 5.27% HM** from 33m
- mineral assemblage: 10% zircon, 27% ilmenite, 4% leucoxene, 4% HiTi leucoxene

Seagull

- **4.5m @ 5.43% HM** from 16.5m (DAAC059)
- **3m @ 6.23% HM** from 27m (DAAC057)
- mineral assemblage: 13% zircon, 43% ilmenite, 9% leucoxene, 4% HiTi leucoxene

(Refer to ASX release dated 25 February 2015 for full details).

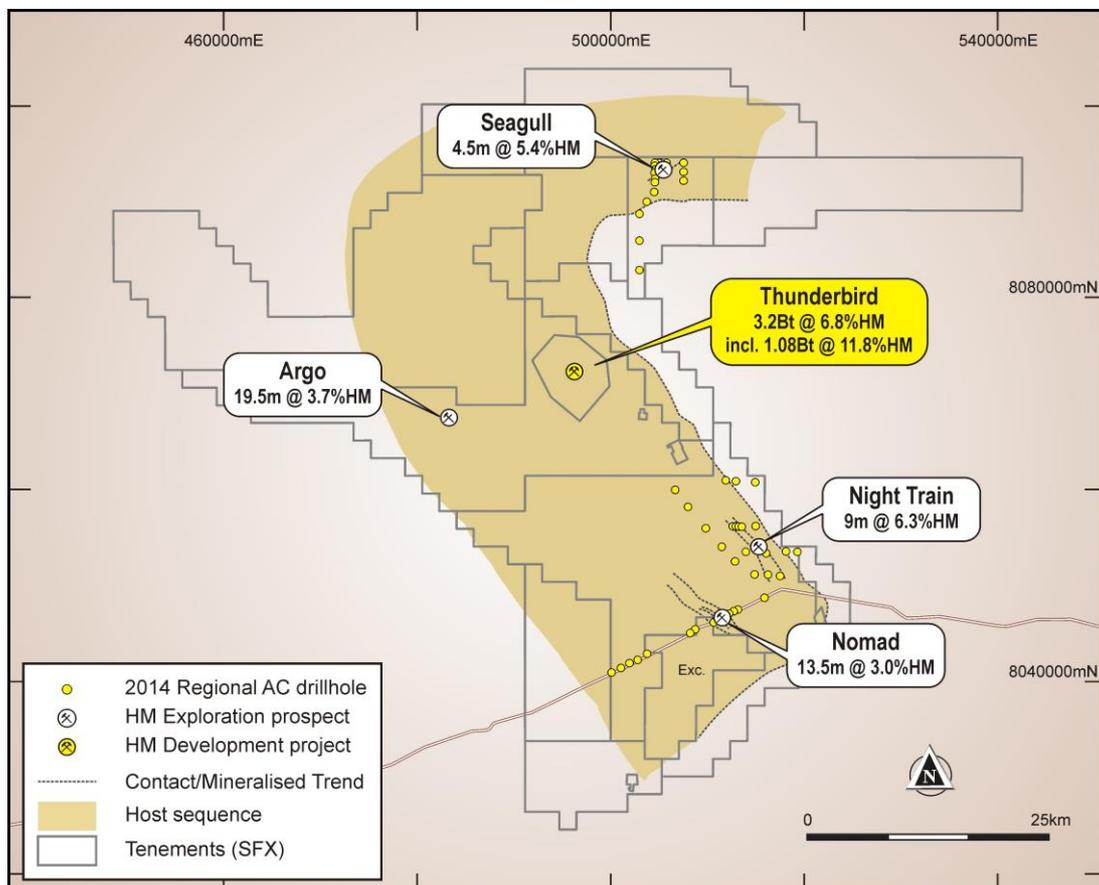


Figure 5: Location of Night Train, Nomad and Seagull prospects

Night Train has a strike length of more than 8km and a mineralised width of at least 1km. Nomad has a potential strike length of 9km (as indicated by an associated linear magnetic trend) and a mineralised width of 1km. The deposit has a 200m wide higher grade zone with geometry typical of a strandline. Seagull has a sheet-like geometry over an area of approximately 2km x 2.5km. Mineralisation remains open at each prospect.

Significantly, the northern end of Night Train has a high value mineral assemblage totalling 92% VHM. This results in very high in situ grades in some drill intersections, e.g. 7.5m @ 1.1% zircon and 5.7% combined titanium minerals from 24m in DAAC052. By comparison, these grades are even higher than the average in situ grade of the high grade component of the Thunderbird resource (0.92% zircon, 3.8% combined titanium minerals (see Appendix 1)).

Many exploration targets remain untested and will be subject to a more extensive, focused exploration drilling program scheduled for H2 2015.

During the quarter, Sheffield lodged three new exploration licence applications with combined area of 1,110km² adjacent to the Dampier Project and five new exploration licence applications covering a total of 1,840km² of highly prospective ground to the east of Derby (Figure 2). This brings Sheffield's total tenement holding in the emerging Canning Basin mineral sands province to 5,800km².

FRASER RANGE NICKEL

Sheffield's tenement holding in the Fraser Range region comprises 12 granted exploration licences and 4 exploration licence applications with a total area of 2,300km² (Figure 6). During the quarter, field programs were undertaken on the Red Bull (E69/3052) and Big Bullocks (E39/1733) tenements. A comprehensive review of historical exploration records commenced on all project tenements.

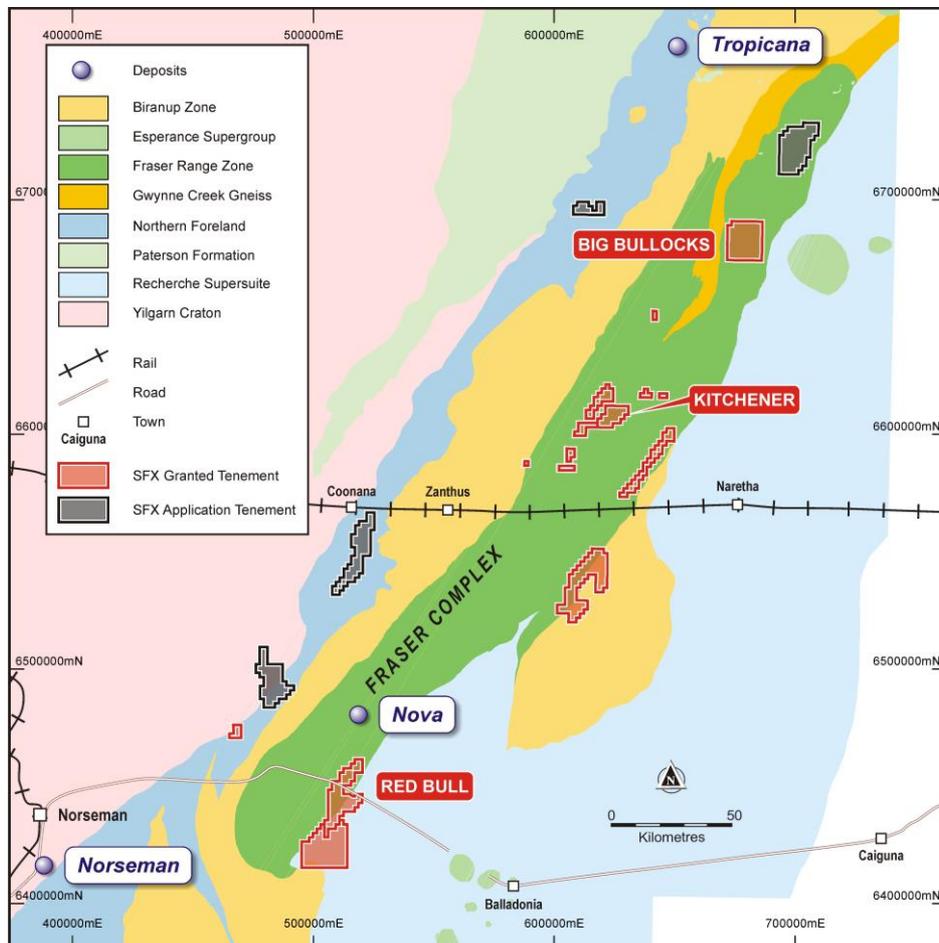


Figure 6: Location of Sheffield's tenements in the Fraser Range region

Red Bull Nickel

High powered Moving loop EM surveys commenced over the Northern Targets region (see ASX release dated 18 February 2015).

The surveys are targeting a layered mafic/ultramafic complex with areas of Ni-Cu-Co anomalism in soils and aircore drilling (see ASX release dated 11 February, 2014).

The EM surveys are expected to be completed during Q2 2015.

Big Bullocks Nickel

The Big Bullocks project (E39/1733) is located in the northeast sector of the Fraser Range and straddles the major regional gravity ridge associated with the Fraser Complex (Figure 6).

A scout aircore drilling program of 110 holes for 3,431m was completed subsequent to the end of the quarter. The program was designed as an initial test of several magnetic lows, interpreted as discrete mafic/ultramafic intrusive bodies (see ASX release dated 16 March 2015). This is the first time the Big Bullocks tenement has been drilled for nickel. Results are expected during Q2 2015.

ENEABBA HEAVY MINERAL SANDS

The Eneabba project comprises five mineral sands deposits: West Mine North, Ellengail, Yandanooka, Durack and Drummond Crossing with combined resources of 6.76Mt of HM (Appendix 1). Sheffield's strategy is to evaluate these deposits with a view to developing a sequential mining operation, whilst actively exploring the region for further deposits.

Subsequent to the end of the quarter, the Company commenced a short aircore drilling program to provide an initial test of dunal-style HMS targets along the Gingin scarp to the east and north of Eneabba.

MCCALLS HEAVY MINERAL SANDS

The McCalls project, located 110km north of Perth, has an Inferred Resource of 4.4Bt @ 1.2% HM containing 53Mt of HM (Appendix 1). Of this, 43 million tonnes is chloride grade ilmenite (66% TiO₂) ranking McCalls as one of the largest undeveloped chloride ilmenite deposits in the world.

Due to prioritisation of work at Thunderbird, work on an updated resource estimate for McCalls, which had commenced last year, will be completed at a later date.

A short aircore drilling program to confirm the grade and mineral assemblage of the Mindarra Springs deposit, located 20km south of McCalls, commenced subsequent to the end of the quarter.

OXLEY POTASH

Sheffield entered into a binding agreement with Centrex Metals Limited (ASX:CXM) to sell 100% interests in the Oxley Potash tenements E70/4318, E70/3777, E70/4004, E70/4320, E70/4319 and E70/4378 for a total consideration of A\$2.5 million (see ASX release dated 9 March 2015). A refundable deposit of \$1.0 million has been paid to the Company.

Completion of the sale is subject to Foreign Investment Review Board approval, any necessary government consents and execution of deeds of assumption with third parties on or before 31 May 2015.

OTHER

Following a strategic review of the Company's project portfolio, the Fowlers talc tenement, E70/3776, was surrendered. This completes Sheffield's exit from the Moora Talc project. Four tenement applications for nickel in the East Kimberley were also withdrawn.

No work was undertaken on the Pilbara Iron project during the quarter.

CASH POSITION

As at 31 March 2015, the Company had cash reserves of approximately \$5.7 million.

This amount includes an upfront cash deposit of \$1 million from the sale of the Oxley potash project received during the quarter (refundable if conditions precedent are not met). A further \$1.5 million is due on completion of the sale.

During the quarter, the Company received \$1,523,800 from its 2014 Research and Development tax return.

\$51,000 was received from Brockman Mining Limited (ASX:BCK) as a supplementary payment relating to the sale of the South Pilbara iron tenements in Q2 2013.



Bruce McQuitty
Managing Director
23 April 2015

Schedule 1: Interests in Mining Tenements at the end of the quarter as required under ASX Listing Rule 5.3.3

Project	Tenement	Holder	Interest	Location ³	Status
Mineral Sands	E04/2081	Sheffield Resources Ltd	100%	Canning Basin	Granted
Mineral Sands	E04/2083	Sheffield Resources Ltd	100%	Canning Basin	Granted
Mineral Sands	E04/2084	Sheffield Resources Ltd	100%	Canning Basin	Granted
Mineral Sands	E04/2159	Sheffield Resources Ltd	100%	Canning Basin	Granted
Mineral Sands	E04/2171	Sheffield Resources Ltd	100%	Canning Basin	Granted
Mineral Sands	E04/2192	Sheffield Resources Ltd	100%	Canning Basin	Granted
Mineral Sands	E04/2193	Sheffield Resources Ltd	100%	Canning Basin	Granted
Mineral Sands	E04/2194	Sheffield Resources Ltd	100%	Canning Basin	Granted
Mineral Sands	E04/2348	Sheffield Resources Ltd	100%	Canning Basin	Pending
Mineral Sands	E04/2349	Sheffield Resources Ltd	100%	Canning Basin	Pending
Mineral Sands	E04/2350	Sheffield Resources Ltd	100%	Canning Basin	Pending
Mineral Sands	E04/2386	Sheffield Resources Ltd	100%	Canning Basin	Pending
Mineral Sands	E04/2390	Sheffield Resources Ltd	100%	Canning Basin	Pending
Mineral Sands	E04/2391	Sheffield Resources Ltd	100%	Canning Basin	Pending
Mineral Sands	E04/2392	Sheffield Resources Ltd	100%	Canning Basin	Pending
Mineral Sands	E04/2393	Sheffield Resources Ltd	100%	Canning Basin	Pending
Mineral Sands	E04/2394	Sheffield Resources Ltd	100%	Canning Basin	Pending
Mineral Sands	E04/2399	Sheffield Resources Ltd	100%	Canning Basin	Pending
Mineral Sands	E04/2400	Sheffield Resources Ltd	100%	Canning Basin	Pending
Mineral Sands	E04/2401	Sheffield Resources Ltd	100%	Canning Basin	Pending
Mineral Sands	M04/459	Sheffield Resources Ltd	100%	Canning Basin	Pending
Mineral Sands	L04/82	Sheffield Resources Ltd	100%	Canning Basin	Pending
Mineral Sands	L04/83	Sheffield Resources Ltd	100%	Canning Basin	Pending
Mineral Sands	L04/84	Sheffield Resources Ltd	100%	Canning Basin	Pending
Mineral Sands	L04/85	Sheffield Resources Ltd	100%	Canning Basin	Pending
Mineral Sands	L04/86	Sheffield Resources Ltd	100%	Canning Basin	Pending
Mineral Sands	E70/3762	Sheffield Resources Ltd	100%	Perth Basin	Granted
Mineral Sands	E70/3812	Sheffield Resources Ltd	100%	Perth Basin	Granted
Mineral Sands	E70/3813	Sheffield Resources Ltd	100%	Perth Basin	Granted
Mineral Sands	E70/3814	Sheffield Resources Ltd	100%	Perth Basin	Granted
Mineral Sands	E70/3846	Sheffield Resources Ltd	100%	Perth Basin	Granted
Mineral Sands	E70/3901	Sheffield Resources Ltd	100%	Perth Basin	Granted
Mineral Sands	E70/3929	Sheffield Resources Ltd	100%	Perth Basin	Granted
Mineral Sands	E70/3931	Sheffield Resources Ltd	100%	Perth Basin	Granted
Mineral Sands	E70/3967	Sheffield Resources Ltd	100%	Perth Basin	Granted
Mineral Sands	E70/3970	Sheffield Resources Ltd	100%	Perth Basin	Granted
Mineral Sands	E70/4190	Sheffield Resources Ltd	100%	Perth Basin	Granted
Mineral Sands	E70/4292	Sheffield Resources Ltd	100%	Perth Basin	Granted
Mineral Sands	E70/4313	Sheffield Resources Ltd	100%	Perth Basin	Granted
Mineral Sands	E70/4314	Sheffield Resources Ltd	100%	Perth Basin	Granted
Mineral Sands	E70/4434	Sheffield Resources Ltd	100%	Perth Basin	Granted
Mineral Sands	E70/4584	Sheffield Resources Ltd	100%	Perth Basin	Granted
Mineral Sands	M70/872 ¹	Sheffield Resources Ltd	100%	Perth Basin	Granted
Mineral Sands	M70/965 ¹	Sheffield Resources Ltd	100%	Perth Basin	Granted
Mineral Sands	M70/1153 ¹	Sheffield Resources Ltd	100%	Perth Basin	Granted
Mineral Sands	R70/35 ¹	Sheffield Resources Ltd	100%	Perth Basin	Granted
Mineral Sands	E70/3859	Sheffield Resources Ltd	100%	Perth Basin	Pending
Mineral Sands	L70/150	Sheffield Resources Ltd	100%	Perth Basin	Pending
Nickel	E69/3033	Sheffield Resources Ltd	100%	Fraser Range	Granted
Nickel	E69/3052	Sheffield Resources Ltd	100%	Fraser Range	Granted
Nickel	E28/2270	Sheffield Resources Ltd	100%	Fraser Range	Granted
Nickel	E39/1733	Sheffield Resources Ltd	100%	Fraser Range	Granted
Nickel	E28/2374-I	Sheffield Resources Ltd	100%	Fraser Range	Granted
Nickel	E28/2448	Sheffield Resources Ltd	100%	Fraser Range	Granted
Nickel	E28/2449	Sheffield Resources Ltd	100%	Fraser Range	Granted
Nickel	E28/2450	Sheffield Resources Ltd	100%	Fraser Range	Granted
Nickel	E28/2323	Sheffield Resources Ltd	100%	Fraser Range	Granted
Nickel	E28/2430	Sheffield Resources Ltd	100%	Fraser Range	Granted
Nickel	E28/2431	Sheffield Resources Ltd	100%	Fraser Range	Granted
Nickel	E28/2428	Sheffield Resources Ltd	100%	Fraser Range	Granted
Nickel	E69/3181	Sheffield Resources Ltd	100%	Fraser Range	Pending
Gold	E63/1696	Sheffield Resources Ltd	100%	Tropicana Belt	Granted
Nickel/Gold	E28/2481	Sheffield Resources Ltd	100%	Tropicana Belt	Pending

Project	Tenement	Holder	Interest	Location	Status
Gold	E28/2453	Sheffield Resources Ltd	100%	Tropicana Belt	Pending
Nickel	E39/1865	Sheffield Resources Ltd	100%	Tropicana Belt	Pending
Iron	E45/3662-I	Ironbridge Resources Pty Ltd ²	100%	Pilbara	Granted
Iron	E45/3822-I	Sheffield Resources Ltd	100%	Pilbara	Granted
Iron	E45/4029	Sheffield Resources Ltd	100%	Pilbara	Granted
Iron	E47/3031-I	Sheffield Resources Ltd	100%	Pilbara	Pending
Manganese	E46/1041	Sheffield Resources Ltd	100%	Pilbara	Pending
Manganese	E46/1042	Sheffield Resources Ltd	100%	Pilbara	Pending
Manganese	E46/1044	Sheffield Resources Ltd	100%	Pilbara	Pending
Talc/potash	E70/4004	Moora Talc Pty Ltd ²	100%	Moora	Granted
Potash	E70/3777	Moora Talc Pty Ltd ²	100%	Morawa	Granted
Potash	E70/4318	Sheffield Resources Ltd	100%	Morawa	Granted
Potash	E70/4319	Sheffield Resources Ltd	100%	Morawa	Granted
Potash	E70/4320	Sheffield Resources Ltd	100%	Morawa	Granted
Potash	E70/4378	Sheffield Resources Ltd	100%	Morawa	Granted

Notes:

¹Iluka Resources Ltd (ASX:ILU) retains a gross sales royalty of 1.5% in respect to tenements R70/35, M70/872, M70/965 & M70/1153.

²Moora Talc Pty Ltd and Ironbridge Resources Pty Ltd are 100% owned subsidiaries of Sheffield Resources Ltd.

³All tenements are located in the state of Western Australia.

Details of tenements and/or beneficial interests acquired/disposed of during the March 2015 Quarter are provided in Section 6 of the Company's Appendix 5B notice for the March 2015 Quarter.

COMPLIANCE STATEMENTS

The information in this report that relates to exploration results is based on information compiled by Mr David Boyd, a Competent Person who is a Member of Australian Institute of Geoscientists (AIG). Mr Boyd is a full-time employee of Sheffield Resources Ltd and has sufficient experience that is relevant to the styles of mineralisation and types of deposit under consideration and to the activity being undertaken to qualify as a Competent Person as defined in the 2012 Edition of the 'Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves'. Mr Boyd consents to the inclusion in the report of the matters based on his information in the form and context in which it appears.

PREVIOUSLY REPORTED INFORMATION

This report includes information that relates to Exploration Results, Mineral Resources and a Scoping Study which were prepared and first disclosed under the JORC Code 2012. The information was extracted from the Company's previous ASX announcements as follows:

- Thunderbird Resource Update: "THUNDERBIRD HIGH GRADE RESOURCE SURPASSES ONE BILLION TONNES", 12 December 2014
- Thunderbird Scoping Study: "SCOPING STUDY HIGHLIGHTS THUNDERBIRD'S EXCEPTIONAL FINANCIAL RETURNS", 14 April, 2014
- Red Bull Results: "LARGE Ni-Cu-Co ANOMALIES IDENTIFIED IN THE FRASER RANGE", 11 February, 2014
- Thunderbird Drilling Results: "EXCEPTIONALLY HIGH GRADES FROM INFILL DRILLING AT THUNDERBIRD MINERAL SANDS PROJECT", 15 February 2015
- Red Bull EM: "GROUND EM SURVEYS COMMENCE AT RED BULL NICKEL PROJECT", 18 February 2015
- Big Bullocks drilling: "DRILLING UNDERWAY IN NORTHERN FRASER RANGE", 16 March 2015

This report also includes information that relates to Exploration Targets, Exploration Results and Mineral Resources which were prepared and first disclosed under the JORC Code 2004. The information has not been updated since to comply with the JORC Code 2012 on the basis that the information has not materially changed since it was last reported. The information was extracted from the Company's previous ASX announcements as follows:

- Ellengail Mineral Resource: "1MT CONTAINED HM INFERRED RESOURCE AT ELLENGAIL", 25 October 2011.
- West Mine North Mineral Resource: "WEST MINE NORTH MINERAL RESOURCE ESTIMATE EXCEEDS EXPECTATIONS", 7 November 2011.
- McCalls Mineral Resource: "4.4 BILLION TONNE MAIDEN RESOURCE AT MCCALLS HMS PROJECT", 20 February 2012.
- Durack Mineral Resource: "ENEABBA PROJECT RESOURCE INVENTORY EXCEEDS 5MT HEAVY MINERAL", 28 August 2012.
- Yandanooka Mineral Resource: "YANDANOOKA RESOURCE UPGRADE AND METALLURGICAL RESULTS", 30 January 2013.
- Drummond Crossing Mineral Resource and Sampling Results from Dunal-Style HM Targets, Eneabba Project: "1Mt HEAVY MINERAL RESOURCE ADDED TO ENEABBA PROJECT", 30 October 2013.

These announcements are available to view on Sheffield Resources Ltd's web site www.sheffieldresources.com.au

The Company confirms that it is not aware of any new information or data that materially affects the information included in the original market announcements and, in the case of estimates of Mineral Resources and Scoping Study results, that all material assumptions and technical parameters underpinning the estimates in the relevant market announcement continue to apply and have not materially changed. The Company confirms that the form and context in which the Competent Person's findings are presented have not been materially modified from the original market announcement.

SCOPING STUDY

The Scoping Study referred to in this report is based on low-level technical and economic assessments, and is insufficient to support estimation of Ore Reserves or to provide assurance of an economic development case at this stage, or to provide certainty that the conclusions of the Scoping Study will be realised.

FORWARD LOOKING STATEMENTS

Some statements in this report 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 "anticipated", "expected", "target", "scheduled", "intends", "potential", "prospective" and similar expressions.

APPENDIX 1: MINERAL RESOURCES

Table 1: Sheffield's contained Valuable HM (VHM) Resource inventory at 12 December 2014

Deposit	Resource Category	Zircon (kt)*	Rutile (kt)*	HiTi Leuc. (kt)*	Leuc. (kt)*	Ilmenite (kt)*	Total VHM (kt)*
Thunderbird	Measured	500	-	200	200	1,800	2,600
Thunderbird	Indicated	15,900	-	5,200	6,500	50,400	78,100
Thunderbird	Inferred	2,800	-	1,000	1,300	9,000	14,100
Yandanooka	Measured	13	2		3	87	105
Yandanooka	Indicated	240	81		83	1,440	1,840
Yandanooka	Inferred	4	1		2	23	29
Durack	Indicated	144	29		52	703	928
Durack	Inferred	26	5		13	121	164
Drummond Crossing	Indicated	143	101		37	542	823
Drummond Crossing	Inferred	7	5		1	28	41
Ellengail	Inferred	92	90		19	658	859
West Mine North	Measured	18	33		42	200	293
West Mine North	Indicated	71	87		46	506	709
McCalls	Inferred	3,490	1,060		2,580	42,910	50,040
Total	Measured	530	35	200	245	2,090	3,100
Total	Indicated	16,500	300	5,200	6,720	53,590	82,310
Total	Inferred	6,420	1,160	1,000	3,915	52,740	65,235
Total	All	23,450	1,500	6,400	10,880	108,420	150,650

All tonnages have been rounded to reflect the relative uncertainty of the estimate, thus sum of columns may not equal. The contained VHM tonnages in the above table are derived from Mineral Resource Estimates for the Yandanooka, Ellengail, West Mine North, McCalls, Durack deposits (estimated using a 0.9% HM cut-off), the Drummond Crossing deposit (estimated using a 1.1% HM cut-off) and the Thunderbird deposit (estimated using a 3% HM cut-off) as detailed in Table 2.

* Valuable Heavy Minerals are classified as zircon, rutile, HiTi leucoxene, leucoxene and ilmenite.

Table 2: Sheffield's HMS Mineral Resource² Inventory at 12 December 2014

Project	Deposit	Resource Category	Cut-off (% HM) ³	Material (Mt)*	Bulk Density	HM %	Slimes % ³	Osize %	Insitu HM (Mt)*	Zircon ² %	Rutile ² %	HiTi ² Leuc. %	Leuc. ² %	Ilm. ² %
Dampier	Thunderbird	Measured	3.0	75	2.1	7.9	19	11	6	9.3	-	2.7	2.7	30
	Thunderbird	Indicated	3.0	2,550	2.1	7.0	16	9	180	8.9	-	2.9	3.6	28
	Thunderbird	Inferred	3.0	580	2.0	5.6	16	9	32	8.8	-	3.0	4.1	28
	Total Dampier	All	3.0	3,205	2.1	6.8	16	9	218	8.9	-	2.9	3.7	28
Eneabba	Yandanooka	Measured	0.9	3	2.0	4.1	15	14	0.1	11	1.9	-	2.2	72
	Yandanooka	Indicated	0.9	90	2.0	2.3	16	15	2.1	11	3.9	-	3.9	69
	Yandanooka	Inferred	0.9	3	2.0	1.2	18	21	0.03	11	3.9	-	4.6	68
	Yandanooka	All	0.9	96	2.0	2.3	16	15	2.2	11	3.8	-	3.9	69
	Durack	Indicated	0.9	50	2.0	2.0	15	21	1.0	14	2.8	-	5.1	69
	Durack	Inferred	0.9	15	1.9	1.2	14	17	0.2	14	2.5	-	7.2	66
	Durack	All	0.9	65	2.0	1.8	15	20	1.2	14	2.8	-	5.6	68
	Drummond Crossing	Indicated	1.1	49	2.0	2.1	16	9	1.0	14	10	-	3.6	53
	Drummond Crossing	Inferred	1.1	3	2.0	1.5	16	8	0.05	13	10	-	2.8	55
	Drummond Crossing	All	1.1	52	2.0	2.1	16	9	1.1	14	10	-	3.5	53
	Ellengail	Inferred	0.9	46.	2.0	2.2	16	2	1.0	8.9	8.7	-	1.9	64
	Ellengail	All	0.9	46	2.0	2.2	16	2	1.0	8.9	8.7	-	1.9	64
	West Mine North	Measured	0.9	6	2.0	5.6	15	1	0.4	4.9	9.1	-	12	55
	West Mine North	Indicated	0.9	36	1.9	2.3	13	3	0.8	8.4	10	-	5.4	60
	West Mine North	All	0.9	43	1.9	2.8	13	3	1.2	7.9	10	-	6.4	59
	Total Eneabba	Measured	var.	9	2.0	5.2	15	5	0.5	6.7	6.8	-	8.7	60
	Total Eneabba	Indicated	var.	225	2.0	2.2	15	13	5.0	12	6.0	-	4.4	64
Total Eneabba	Inferred	var.	68	2.0	1.9	15	6	1.3	10	7.2	-	3.2	64	
Total Eneabba	All	var.	302	2.0	2.2	15	11	6.8	12	6.3	-	4.2	64	
McCalls	McCalls	Inferred	0.9	4,431	2.3	1.2	27	1.4	53	6.6	2.0	-	4.9	81
	Total McCalls	All	0.9	4,431	2.3	1.2	27	1.4	53	6.6	2.0	-	4.9	81

* All tonnages and grades have been rounded to reflect the relative uncertainty of the estimate and maintain consistency throughout the table, thus sum of columns may not equal.

¹ See the compliance statements in this report for important information relating to the reporting of these Mineral Resources. ² The Mineral Assemblage is represented as the percentage of the Heavy Mineral (HM) component of the deposit, determined by QEMSCAN for Eneabba & McCalls, with TiO₂ minerals defined according to the following ranges: Rutile >95% TiO₂; Leucoxene 85-95% TiO₂; Ilmenite <55-85% TiO₂; for Dampier the mineral assemblage was determined by screening and magnetic separation. Magnetic fractions were analysed by QEMSCAN for mineral determination as follows: Ilmenite: 40-70% TiO₂ >90% Liberation; Leucoxene: 70-94% TiO₂ >90% Liberation; High Titanium Leucoxene (HiTi Leucoxene): >94% TiO₂ >90% Liberation; and Zircon: 66.7% ZrO₂+HfO₂ >90% Liberation. Non-magnetic fractions were submitted for XRF analysis and minerals determined as follows: Zircon: ZrO₂+HfO₂/0.667 and High Titanium Leucoxene (HiTi Leucoxene): TiO₂/0.94. ³ West Mine North, Drummond Crossing, Durack and McCalls deposits are reported below 35% slimes cut-off.