Sheffield Resources Ltd
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27 January 2015

QUARTERLY REPORT FOR PERIOD ENDING 31 DECEMBER 2015

HIGHLIGHTS

Thunderbird Mineral Sands Project

- Maiden Ore Reserve of 682.7 million tonnes @ 11.3% HM (Proved and Probable)
- Appointment of Jim Netterfield as BFS Project Manager
- BFS process has commenced and Tier 1 project management services contract will be awarded in February 2016
- Native Title negotiations progressing
- Public Environmental Review process is advancing
- Exceptional results obtained from 110 infill drill holes in up-dip region of deposit:
  - Confirms very high grade and excellent continuity of mineralisation
  - Increases confidence in area of deposit targeted for early production
  - Infill drilling pattern now largely complete for BFS
- Encouraging exploration drilling results from Bells Tower, 20km north of Thunderbird

Fraser Range Nickel Project

- Diamond and RC drilling program completed at the Stud Prospect at Red Bull – assay results due Q1 2016

Cash Position

- Strengthened cash position of A$7.9 million as a result of:
  - A$5.3 million raised through share placement and share purchase plan
  - A$1.8 million received from 2015 R & D Tax Rebate

As at 31/12/15:

Issued Shares	**147.0 million**	ASX Code	**SFX**	Closing Price	**A$0.405**
Market Cap	**A$59.5 million**	Cash Reserves	**A$7.9 million**		

SUMMARY

Following completion of the Pre-feasibility Study in October 2015, the Company commenced a Bankable Feasibility Study (BFS) on its flagship Thunderbird Mineral Sands Project.

A$5.3 million of capital was raised, primarily to provide funding for the Thunderbird BFS. The Company's cash reserves were A$7.9 million at quarter end.

Highly experienced mineral development project manager Jim Netterfield was appointed as Project Manager for Thunderbird and will assume responsibility for the BFS and permitting.

The BFS has been tendered and the Company expects to appoint a Tier 1 BFS Consultant in February 2016.

The majority of the field-based BFS work has already been completed, including infill resource drilling and collection of a 100t bulk sample. In December 2015, 40t of the bulk sample was freighted to the metallurgical laboratory in Brisbane for BFS metallurgical testwork and flow sheet optimisation. This work has now commenced and is scheduled for completion by mid CY2016.

The Thunderbird Native Title negotiations and Environmental approvals process are well advanced. MBS Environmental have been appointed as lead consultant for the environmental process.

A short diamond and RC drilling program (total 1,095 metre) was completed at the Red Bull nickel project in the Fraser Range. Although the principal conductor target was demonstrated to be graphite-sourced, assay results are yet to be received.

Exploration and evaluation expenditure for the quarter is A$1,772,000.

Figure 1: Location of Sheffield Resources Projects in Western Australia

THUNDERBIRD MINERAL SANDS PROJECT

Project background, Pre-Feasibility Study (PFS) and work to date

Sheffield's Thunderbird Mineral Sands Project is located near Derby in Western Australia. Thunderbird by virtue of its location, size[1] and quality of product[2] has the potential to become a globally significant mineral sands business. The significance of the Project is supported by the prominent "Lead Agency" project status from the Department of Mines and Petroleum in Western Australia.

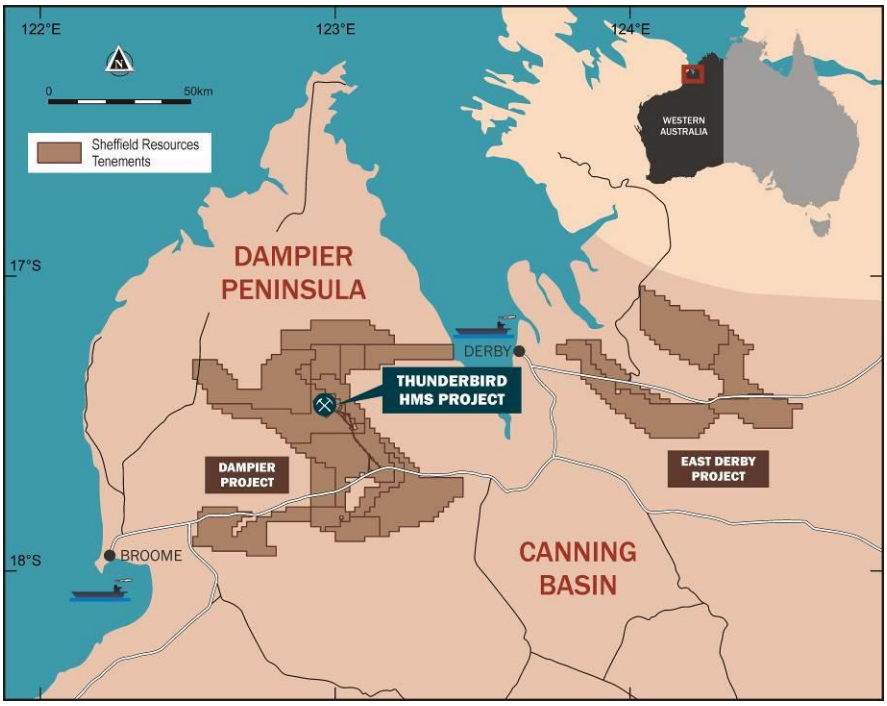

Figure 2: Location of Thunderbird HMS project

Zircon is the key value driver of the Project making up almost 60% of forecast revenue, with the remainder generated from substantial amounts of high grade sulphate ilmenite and "HiTi" leucoxene. The high proportion of zircon sets Thunderbird apart from many of the world's operating and undeveloped mineral sands projects which are dominated by lower value ilmenite.

The PFS Update (see ASX release dated 14 October, 2015) successfully identified and validated key items such as the mine life and mining rate, product type and quality, processing technology and flow sheet design, and product delivery logistics.

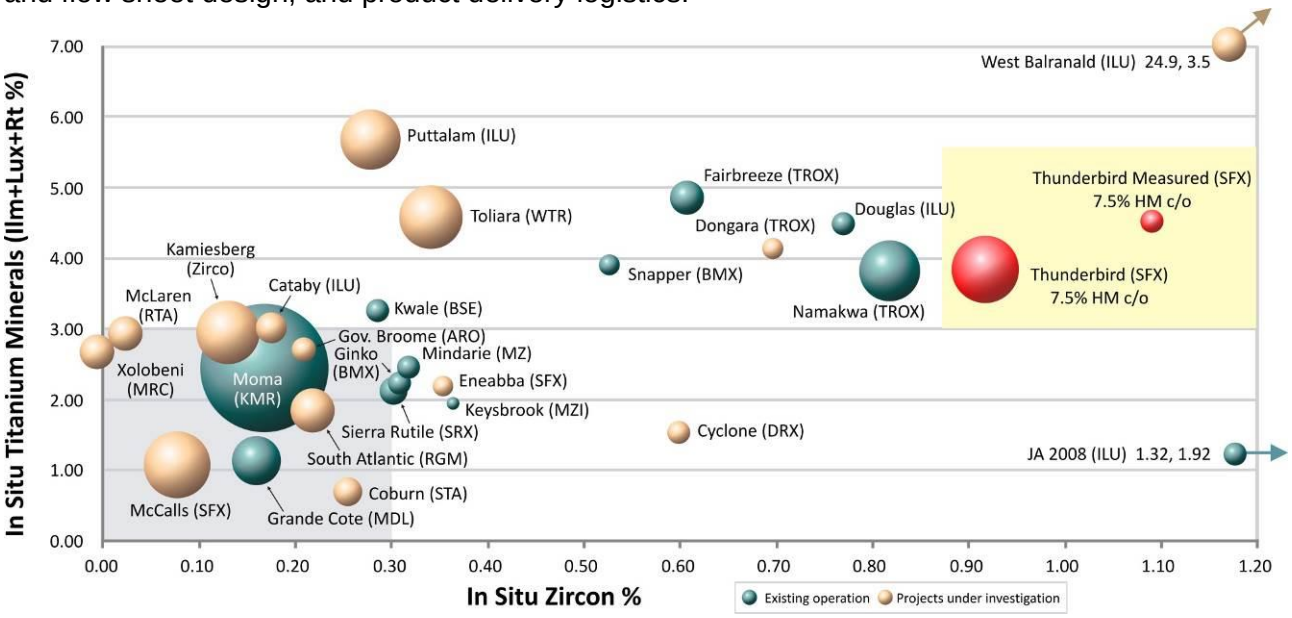

Figure 3: Thunderbird Mineral Resource ranked against current mineral sands operations and projects under investigation globally excluding Rio Tinto projects. Data compiled by Sheffield from open file sources 2015.

[1] The PFS was based on the Thunderbird Mineral Resource announced on 31 July 2015 comprising 3.240Bt @ 6.9% HM (at 3% HM cut off), including a coherent high grade zone of 1.09Bt @ 11.9% HM (at 7.5% cut off) (Measured, Indicated and Inferred). The high grade component contains 9.9Mt of zircon, 3.0Mt of high-titanium leucoxene, 2.8Mt of leucoxene and 36Mt of ilmenite. The Maiden Ore Reserve announced to the ASX 22 January 2016 supports 40 year mine life operation outlined in the PFS.

[2] Leading global mineral sands consulting group TZMI has confirmed that Sheffield's primary zircon and LTR ilmenite are high quality products that are likely to receive strong market support. Collectively these products represent 81% of the total projected revenue. Significant interest has been registered in these products by leading marketing specialists and industry groups.

Bankable Feasibility Study (BFS)

The BFS has commenced and is scheduled for completion by the end of 2016. Apart from some minor confirmatory fieldwork and metallurgical test work, the majority of the BFS work will focus on preliminary engineering, supply quotation and cost estimation. The BFS will yield reliable estimates of quantities and prices of plant, equipment, buildings and civil structures. The key deliverables of the BFS are detailed estimates of capital and operating costs (generally defined as a Class 3 estimate, typically ± 10 to 15%), accompanied by related risk and opportunities associated with the project. Other deliverables include a preliminary project construction plan, legal, commercial and other factors.

During the BFS, Sheffield will explore several opportunities to further improve the Project's robust financial returns with a focus on:

- CAPEX and OPEX reductions and savings identified through engineering and sourcing
- Further optimisation of;
    - project definition to provide the best outcome in terms of CAPEX, OPEX and risk
    - process design, focused on increasing processing efficiency, product quality and recoveries
    - product marketing and offtake

Based on the long-life Ore Reserve at Thunderbird, the high quality products, and the likelihood of international funding, the decision was made to utilise a Tier 1, internationally recognised project management and engineering consultant to ensure the study will meet the standards required for investment decisions. It is anticipated that the successful BFS consultant will be announced in February 2016.

The bidding BFS consultants have indicated study completion by the end of CY2016. This study will advance in parallel with the environmental approvals process, Native Title negotiations and, funding and offtake negotiations.

Environmental approvals

An environmental impact assessment referral was lodged with the Office of the Environmental Protection Authority and was assessed at the Public Environmental Review (PER) level. Documentation for the PER process is progressing.

Native Title

Native Title negotiations progressed through the quarter including a meeting held with Traditional Owners in Broome. Sheffield is targeting an agreement to be completed in 2016.

Thunderbird Maiden Ore Reserve

Subsequent to the end of the quarter, the Company announced its maiden Ore Reserve for the Thunderbird Project (see ASX release dated 22 January, 2016). The maiden Ore Reserve supports the 40 year mine life as detailed in the Pre-feasibility Study (PFS) released on 14 October 2015 and further highlights the world class significance of the Thunderbird project for the local Kimberley communities and Western Australia at large.

The Ore Reserve estimate for the Thunderbird Project as at January 2016 is shown in Table 1.

Table 1: Thunderbird Ore Reserve 22 January 2016

Ore Reserve				Valuable HM Grade (In-Situ)					
DEPOSIT	Reserve Category	Material (Mt)	HM (%)	Zircon (%)	HiTi Leuc (%)	Leucoxene (%)	Ilmenite (%)	Oversize (%)	Slimes (%)
Thunderbird	Proved	115.1	13.7	1.01	0.29	0.28	3.67	12.7	17.3
	Probable	567.6	10.9	0.85	0.27	0.29	3.03	10.2	16.1
	Total	682.7	11.3	0.88	0.27	0.29	3.14	10.6	16.3

Calculations have been rounded to the nearest 100,000 tonne, 0.1% grade. Differences may occur due to rounding. The in-situ grade is determined by multiplying the percentage of HM by the percentage of each valuable heavy mineral within the heavy mineral assemblage. Ore Reserve is reported by economic cut-off with appropriate consideration of modifying factors, costs, mineral assemblage, process recoveries and product pricing.

The Ore Reserve estimate was prepared by Entech Pty Ltd, an experienced and prominent mining engineering consultancy with appropriate mineral sands experience.

The Ore Reserve estimate is based on the July 2015 mineral resource estimate generated for Sheffield by QG Pty Ltd (see ASX release dated 31 July 2015). Measured and Indicated Mineral resources were converted to Proved and Probable Ore Reserves, subject to mine designs, modifying factors and economic evaluation (refer to ASX release dated 22 January 2016 for further details). All Mineral Resources for Thunderbird referred to in this report are inclusive of the Thunderbird Ore Reserves.

Thunderbird Infill Drilling

Exceptionally high grade results were returned from infill drilling in the shallow, northern part of the Thunderbird deposit. The results relate to 110 infill aircore drill holes completed during Q3 2015 and are subsequent to the current 31 July 2015 Mineral Resource. Significant results include:

- 28.5m @ 14.7% HM from 1.5m (THAC664), including **16.5m** @ **21.6% HM** from 6m
- 28.5m @ 14.3% HM from 1.5m (THAC663), including **16.5m** @ **20.0% HM** from 4.5m
- 18.0m @ 15.0% HM from 0m (THAC651), including **12.0m** @ **21.1% HM** from 0m
- 37.5m @ 12.3% HM from 0m (THAC673), including **21.0m** @ **16.8% HM** from 0m
- 40.5m @ 12.1% HM from 4.5m (THAC621), including **24.0m** @ **16.5% HM** from 6m
- 24.0m @ 14.2% HM from 0m (THAC660), including **15.0m** @ **19.7% HM** from 1.5m
- 31.5m @ 12.2% HM from 3m (THAC633), including **15.0m** @ **18.6% HM** from 6m

(>3.0% HM cut-off, including >7.5% HM cut-off, refer to ASX release dated 10 December 2015 for full details)

The infill drilling completes a closely-spaced drill pattern of 125m x 250m within the shallow up-dip portion of the deposit targeted for early production and largely fulfils the drilling requirement for the BFS.

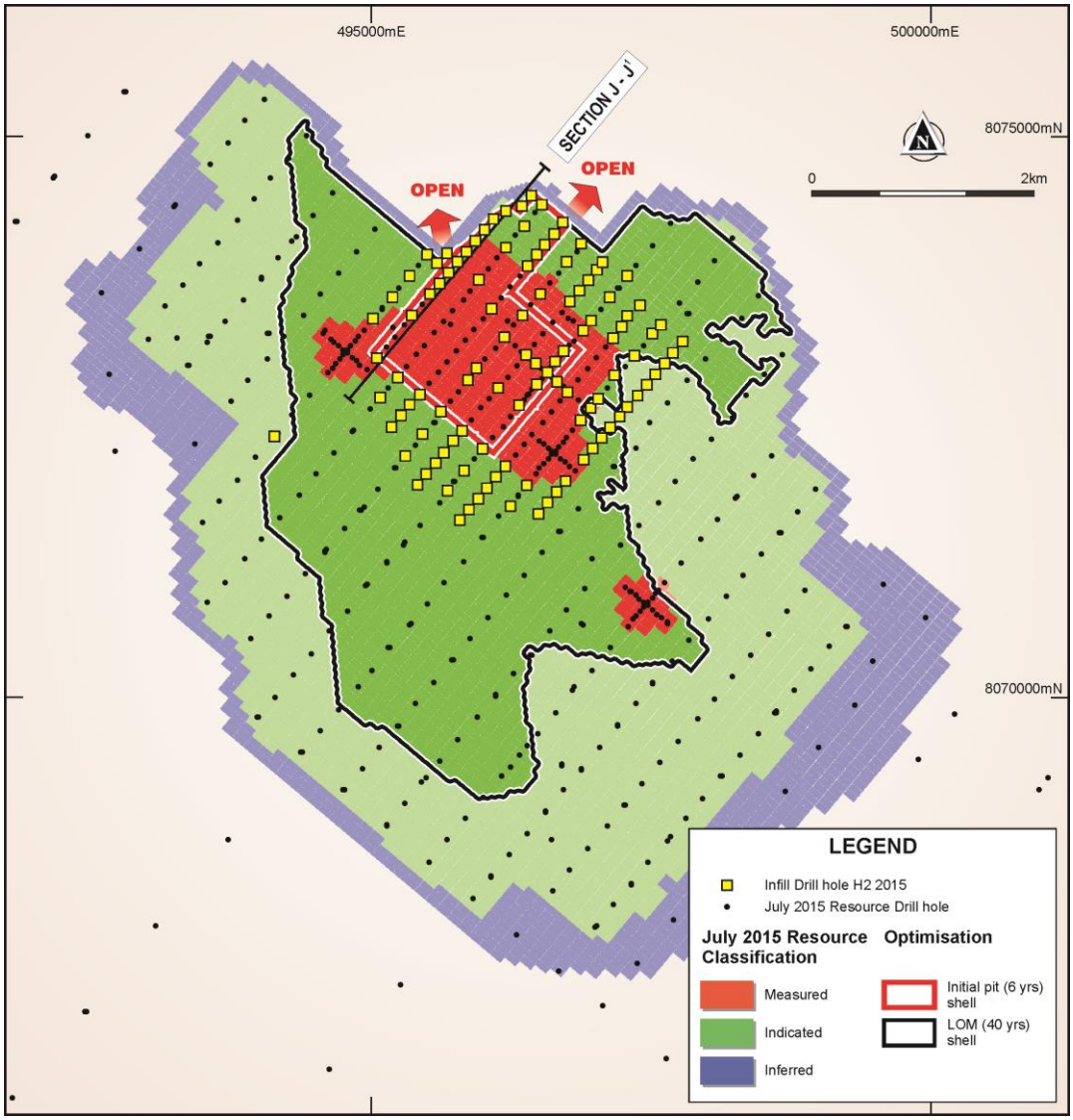

Figure 4: Plan view of Thunderbird deposit showing mineral resource classifications and location of infill drill holes

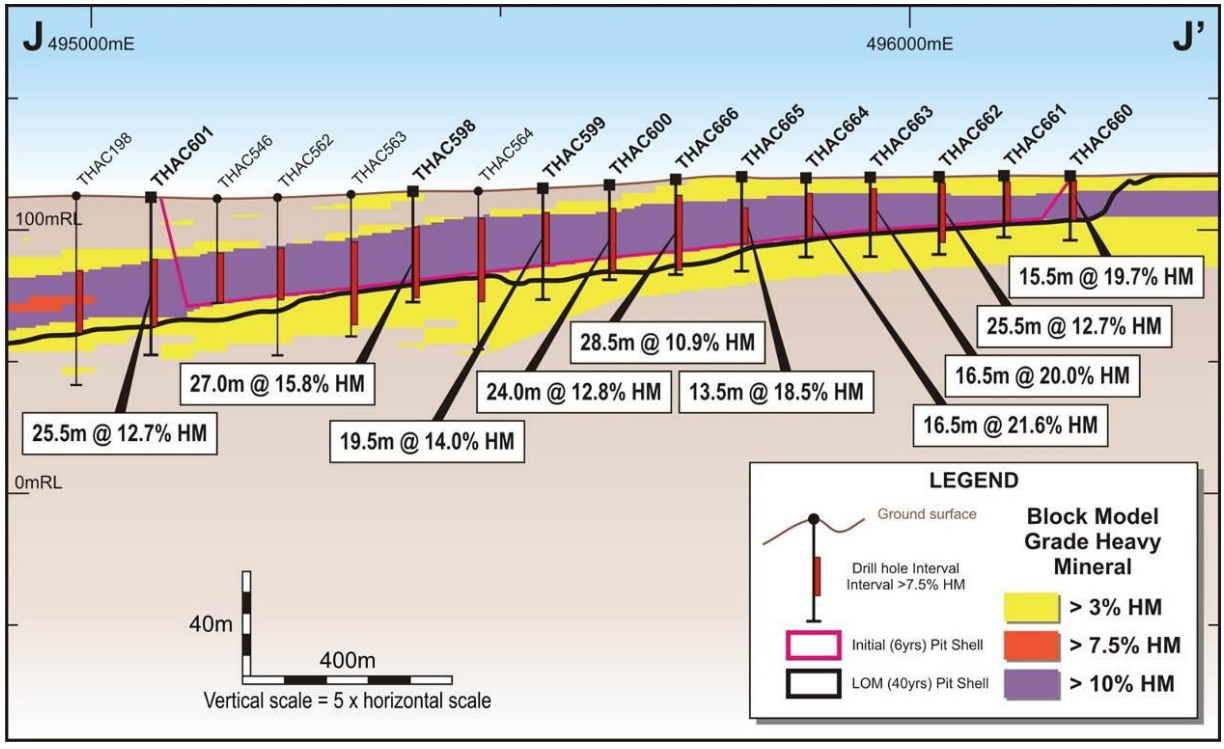

Figure 5: Cross-section J-J' showing infill drilling at the Thunderbird deposit

DAMPIER REGIONAL MINERAL SANDS

Remaining assay results were obtained from regional exploration aircore drilling undertaken during Q3 2015 in the Bells Tower area, about 20km north of Thunderbird.

The results relate to 29 broadly-spaced (1-4km apart) drill holes totalling 1,505m that targeted a similar stratigraphic position to Thunderbird. Significant results include:

- **9m** @ **3.78% HM** from 46.5m (DAAC075), including **6m** @ **5.18% HM** from 46.5m
- **4.5m** @ **4.27% HM** from 42m (DAAC072), including **3m** @ **5.49% HM** from 43.5m
- **3m** @ **5.83% HM** from 19.5m (DAAC068)
- **9m** @ **2.73% HM** from 40.5m (DAAC071), including **3m** @ **4.93% HM** from 43.5m
- **7.5m** @ **2.58% HM** from 42m (DAAC074), including **4.5m** @ **3.51% HM** from 43.5m
- **6m** @ **3.17% HM** from 36m (DAAC087), including **4.5m** @ **3.53% HM** from 37.5m

(refer to Table 2 and Appendix 2 for full details)

The drilling has outlined a mineralised zone about 4km wide along a single east-west line of holes (DAAC069 to DAC075).The mineralisation is from 3m to 9m thick and has been intersected from 34.5 to 46.5m depth. Visual appraisal of the mineralisation indicates a high proportion of valuable heavy mineral (VHM) in the HM assemblage, to be confirmed by further mineral assemblage test work scheduled for Q1 2016.

The drilling results are extremely encouraging as they occur in sand units similar to those immediately below the Thunderbird stratigraphic position. These results along with the exciting discovery outlined at Night Train (refer ASX release dated 22 September 2015) demonstrate the potential for additional deposits of the Thunderbird-type in the region. Further regional-scale exploration drilling is planned to test this potential during 2016.

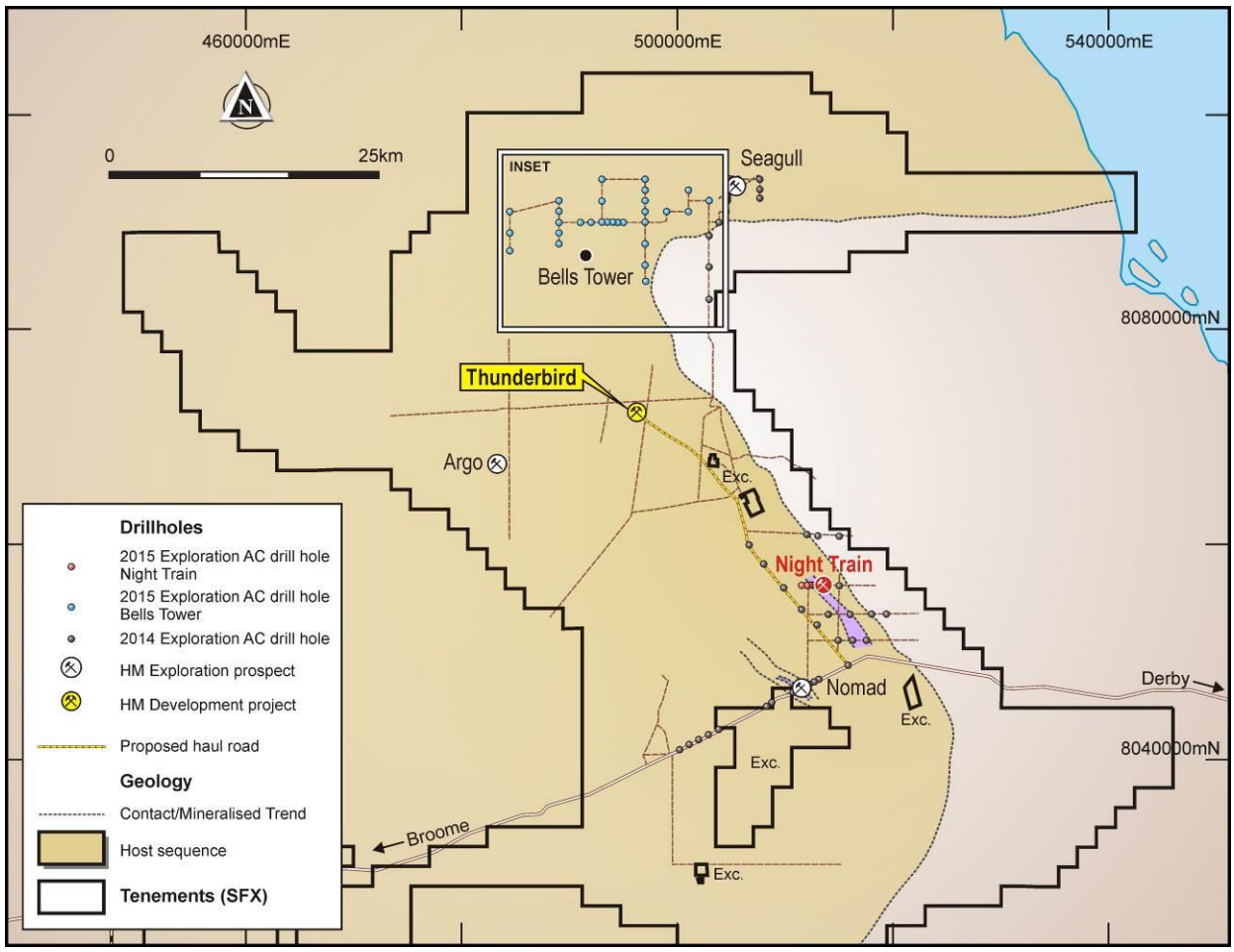

Figure 6: Dampier Project regional plan showing location of aircore drill holes at Bells Tower

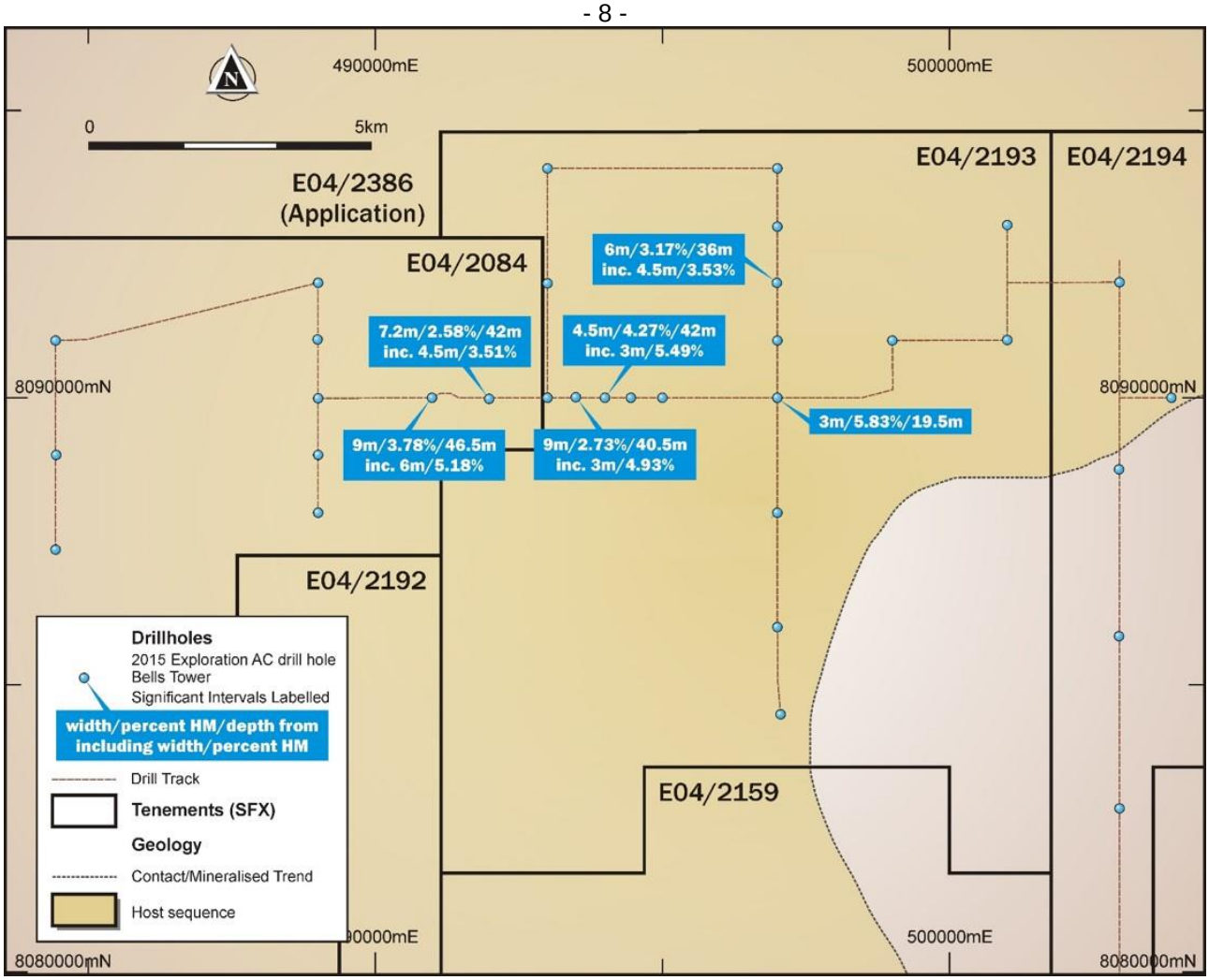

Figure 7: Inset from Figure 5 (above) with detail of selected Bells Tower drilling results

FRASER RANGE NICKEL

A short RC and diamond drilling program was completed at the Stud prospect on the Red Bull project (Figure 8). Stud is located just 21km to the south of the Nova nickel-copper deposit.

One diamond drill hole with RC pre-collar (total 453m) targeted a large bedrock conductor, whilst four RC holes (total 642m) targeted zones of IP anomalism coincident with nickel-copper geochemical anomalism in aircore drill holes.

The diamond drill hole (REDD005) intersected a 12m zone of graphitic meta-sediment from 348m depth which is the most likely source of the bedrock conductor. A 13m interval of brecciated ultramafic with trace disseminated sulphides was intersected from 436m depth (see ASX release dated 23 December 2015).

RC drill hole RERC003 intersected a 2m zone of disseminated sulphide mineralisation (predominantly pyrite, up to 10%) from 107m depth, near the contact between mafic granulite and meta-sedimentary units.

The southernmost RC drill hole, RERC004, intersected a substantial down-hole thickness of metamorphosed ultramafic rocks from 48m to 160m (eoh) - a potential host unit for magmatic nickel sulphide deposits. RC drill holes RERC001 & RERC002 did not intersect any alteration or mineralisation of note.

These results are estimates from visual examination of the drill core and chips; assay results are pending and are expected to be received during Q1 2016. Downhole EM surveys are planned in Q1 2016 to confirm the conductor source in REDD005 and search for any off-hole conductors from RERC003.

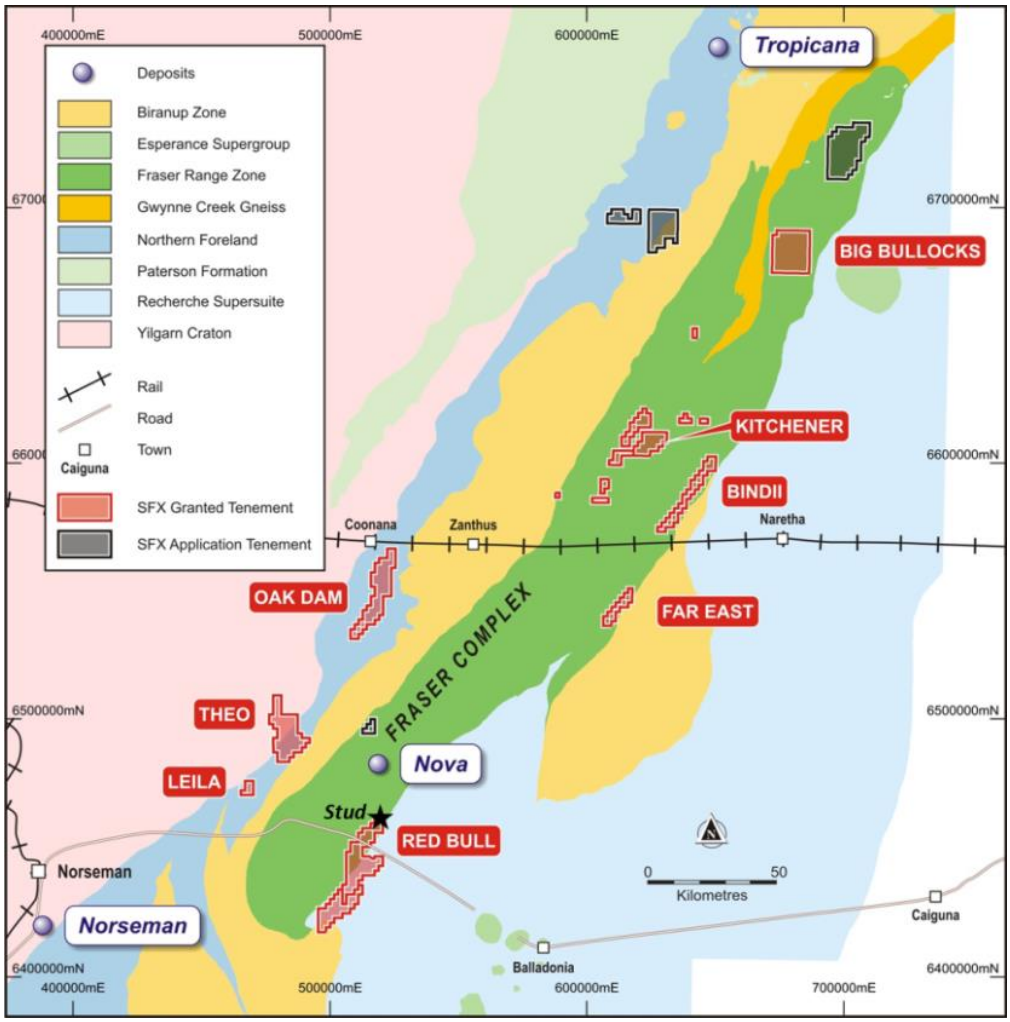

Figure 8: Location of Sheffield's Red Bull project & Stud prospect in relation to Nova Ni-Cu deposit

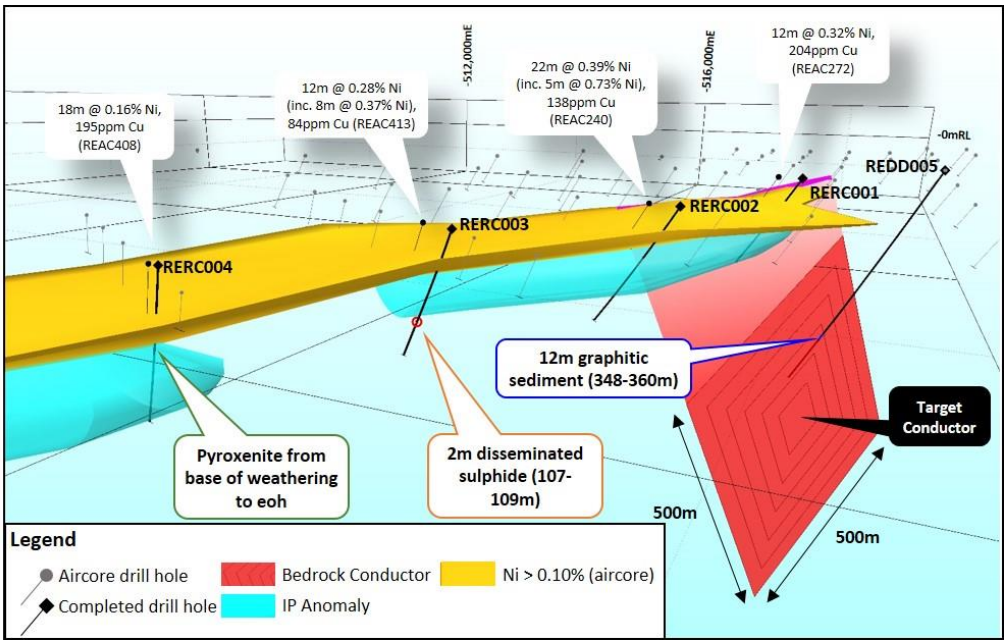

Figure 9: Stud prospect showing completed drill holes (assay results pending)

DERBY EAST MINERAL SANDS

The Derby East project comprises 3 granted tenements E04/2391, E03/2393 and E04/2394 and two tenement applications with a total area of 1,843km^2, covering prospective mineral sands ground to the east of Derby (Figure 2). During the quarter, a field visit was undertaken to brief pastoralists and other stakeholders of the proposed work program for 2016. A review of historical exploration data has commenced.

ENEABBA & McCALLS HEAVY MINERAL SANDS

No field work was undertaken during the quarter. A surface sampling program, targeting dunal HM deposits on the Eneabba project, is planned for Q1 2016.

CASH POSITION

As at 31 December 2015, Sheffield had cash reserves of approximately $7.9 million.

During the quarter, A$4,802,110 was raised from the placement of 10,498,995 shares at an issue price of 44c to domestic and international sophisticated and professional investors. Sheffield's directors will contribute an additional $167,640 to the placement (381,000 shares), subject to shareholder approval scheduled for a meeting on 5 February 2016.

In addition, A$447,000 was raised through the issue of 1,015,929 shares at 44cps under a share purchase plan.

The Company also received $1.8 million from its 2015 Research and Development tax return.

A$201,750 was raised from the exercise of options.

Bruce McFadzean
Managing Director
27 January 2015

Table 2: Dampier Project regional exploration aircore drill results (see Appendix 2 for additional details)

Hole ID	Depth From (m)	Depth To (m)	Interval Width (m)*	HM wt%	Slimes wt%	Osize wt%	Drill Hole Collar Information				
							Easting	Northing	RL	Depth (m)	Comment
DAAC062	no significant interval						502955	8092012	72	42.0	
DAAC063^	no significant interval						501006	8091004	58	36.0	
DAAC064	no significant interval						499000	8090998	65	30.0	
DAAC065	no significant interval						497062	8084494	73	30.0	
DAAC066	no significant interval						497002	8086004	71	30.0	
DAAC067^	no significant interval						496999	8087999	69	30.0	
DAAC068^	19.5	22.5	3.0	5.83	20.9	0.0	497002	8090005	81	60.0	
DAAC069	34.5	40.5	6.0	2.00	26.5	0.6	494994	8090002	86	60.0	
DAAC070	37.5	42.0	4.5	3.67	20.4	0.0	494454	8090003	89	60.0	
including	*37.5*	*40.5*	*3.0*	*4.07*	*20.5*	*0.0*					
DAAC071	33.0	37.5	4.5	2.13	27.2	1.7	493999	8090010	90	60.0	
and	40.5	49.5	9.0	2.73	24.4	1.8	493999	8090010	90	60.0	
including	*43.5*	*46.5*	*3.0*	*4.93*	*23.6*	*1.8*					
DAAC072	30.0	33.0	3.0	2.33	19.2	1.1	493497	8090008	89	60.0	
and	42.0	46.5	4.5	4.27	22.8	0.6	493497	8090008	89	60.0	
including	*43.5*	*46.5*	*3.0*	*5.49*	*22.4*	*0.6*					
DAAC073^	45.0	49.5	4.5	3.22	27.1	0.6	493000	8090004	91	66.0	
DAAC074	42.0	49.5	7.5	2.58	30.3	0.7	491988	8089986	94	60.0	
including	*43.5*	*48.0*	*4.5*	*3.51*	*29.2*	*0.8*					
DAAC075	46.5	55.5	9.0	3.78	23.8	0.7	490992	8090002	99	72.0	
including	*46.5*	*52.5*	*6.0*	*5.18*	*25.2*	*0.9*					
DAAC076	no significant interval						489002	8089992	113	72.0	
DAAC077	10.5	13.5	3.0	1.08	5.6	2.7	489007	8089002	115	60.0	
DAAC078	49.5	52.5	3.0	3.89	29.8	1.6	489006	8087997	114	72.0	
and	55.5	58.5	3.0	1.16	17.4	0.1	489006	8087997	114	72.0	

Hole ID	Depth From (m)	Depth To (m)	Interval Width (m)*	HM wt%	Slimes wt%	Osize wt%	Drill Hole Collar Information				
							Easting	Northing	RL	Depth (m)	Comment
DAAC079	45.0	48.0	3.0	1.50	18.5	10.9	489001	8091017	115	60.0	
DAAC080	no significant interval						489005	8092000	111	47.0	
DAAC081	55.5	58.5	3.0	1.17	17.5	0.3	484440	8091000	133	60.0	
DAAC082	no significant interval						484443	8089001	132	48.0	
DAAC083	39.0	43.5	4.5	1.01	15.9	1.2	484440	8087353	137	48.0	
DAAC084	no significant interval						493003	8091992	98	42.0	
DAAC085	no significant interval						493003	8093998	99	42.0	
DAAC086	no significant interval						497001	8093998	82	42.0	
DAAC087	10.5	15.0	4.5	1.26	22.6	4.2	496996	8092003	75	60.0	
and	36.0	42.0	6.0	3.17	22.2	2.7	496996	8092003	75	60.0	
including	*37.5*	*42.0*	*4.5*	*3.53*	*23.8*	*3.5*					
DAAC088	30.0	42.0	12.0	1.58	20.5	1.6	497000	8090996	77	48.0	
DAAC089	no significant interval						497001	8092975	78	66.0	
DAAC090	no significant interval						501005	8093003	62	42.0	

*All intervals calculated using 1% HM lower cut-off, 3m minimum width, maximum 1.5m internal waste; "*including"* intervals >3% HM, 3m minimum width, maximum 1.5m internal waste. ^ indicates interval same at 1% and 3% cut-off. HM, Slimes and Oversize ("Osize") determined by Heavy Liquid Separation (HLS) using TBE (sg. 2.96g/cc); screen sizes: slimes 38µm and oversize ("Osize") +1mm. Drill hole collar locations were determined by handheld GPS with expected accuracy of +/- 15m horizontal. RL determined by projection to a regional DTM model created from SRTM data. Easting and Northing coordinate system is MGA Zone 51 (GDA94), RL is AHD. All holes were drilled vertically. Refer to Appendix 2 for additional details.

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	Granted
Mineral Sands	E04/2349	Sheffield Resources Ltd	100%	Canning Basin	Granted
Mineral Sands	E04/2350	Sheffield Resources Ltd	100%	Canning Basin	Granted
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	Granted
Mineral Sands	E04/2392	Sheffield Resources Ltd	100%	Canning Basin	Pending
Mineral Sands	E04/2393	Sheffield Resources Ltd	100%	Canning Basin	Granted
Mineral Sands	E04/2394	Sheffield Resources Ltd	100%	Canning Basin	Granted
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	Granted
Mineral Sands	L04/85	Sheffield Resources Ltd	100%	Canning Basin	Granted
Mineral Sands	L04/86	Sheffield Resources Ltd	100%	Canning Basin	Granted
Mineral Sands	L04/92	Sheffield Resources Ltd	100%	Canning Basin	Granted
Mineral Sands	L04/93	Sheffield Resources Ltd	100%	Canning Basin	Granted
Mineral Sands	E70/3762	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	E70/3929	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
Mineral Sands	E70/4719	Sheffield Resources Ltd	100%	Perth Basin	Pending
Mineral Sands	E70/4747	Sheffield Resources Ltd	100%	Perth Basin	Pending
Mineral Sands	E70/4748	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

Project	Tenement	Holder	Interest	Location	Status
Nickel	E28/2428	Sheffield Resources Ltd	100%	Fraser Range	Granted
Nickel	E69/3181	Sheffield Resources Ltd	100%	Fraser Range	Pending
Nickel	E28/2563	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	Granted
Gold	E28/2453	Sheffield Resources Ltd	100%	Tropicana Belt	Granted
Nickel	E39/1865	Sheffield Resources Ltd	100%	Tropicana Belt	Pending
Nickel/Gold	E39/1891	Sheffield Resources Ltd	100%	Tropicana Belt	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
Manganese	E45/4558	Sheffield Resources Ltd	100%	Pilbara	Pending
Manganese	E45/4573	Sheffield Resources Ltd	100%	Pilbara	Pending
Manganese	E45/4574	Sheffield Resources Ltd	100%	Pilbara	Pending
Manganese	E46/1069	Sheffield Resources Ltd	100%	Pilbara	Pending
Manganese	E46/1070	Sheffield Resources Ltd	100%	Pilbara	Pending
Copper/Manganese	E46/1099	Sheffield Resources Ltd	100%	Pilbara	Pending
Copper	E45/4600	Sheffield Resources Ltd	100%	Pilbara	Pending

Notes:
[1]Iluka Resources Ltd (ASX:ILU) retains a gross sales royalty of 1.5% in respect to tenements R70/35, M70/872, M70/965 & M70/1153.
[2]All tenements are located in the state of Western Australia.

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

COMPLIANCE STATEMENTS

EXPLORATION RESULTS

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 style of mineralisation and type 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, Exploration Targets, Mineral Resources, Ore Reserves and a Pre-feasibility 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 High Grade Resource Update: "*THUNDERBIRD HIGH GRADE RESOURCE UPDATE*" 31 July 2015
- Night Train discovery: "*NEW MINERAL SANDS DISCOVERY AT NIGHT TRAIN*" 22 September, 2015
- Thunderbird Pre-feasibility Study Update: "*PRE-FEASIBILITY STUDY UPDATE CONFIRMS THUNDERBIRD AS THE WORLD'S BEST UNDEVELOPED MINERAL SANDS PROJECT*" 14 October 2015
- Thunderbird infill drilling results: "*NEW HIGH-GRADE RESULTS FROM INFILL DRILLING AT THUNDERBIRD*" 10 December 2015
- Stud drilling results: "*RED BULL NICKEL PROJECT UPDATE, FRASER RANGE",* 23 December 2015
- Thunderbird Ore Reserve: "MAIDEN ORE RESERVE – THUNDERBIRD PROJECT". 22 January, 2016

This report also includes information that relates to 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, Ore Reserves and Pre-feasibility 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.

FORWARD LOOKING AND CAUTIONARY 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 AND RESERVES

(Note Mineral Resources are inclusive of (not additional to) Ore Reserves)

Table 1: Thunderbird Ore Reserves at 22 January 2016

Deposit	Reserve Category	Material (Mt)	HM (%)	Slimes (%)	Oversize (%)	Valuable HM Grade (In-Situ)			
						Zircon (%)	HiTi Leuc (%)	Leucoxene (%)	Ilmenite (%)
Thunderbird	Proved	115.1	13.7	17.3	12.7	1.01	0.29	0.28	3.67
	Probable	567.6	10.9	16.1	10.2	0.85	0.27	0.29	3.03
	Total	**682.7**	**11.3**	**16.3**	**10.6**	**0.88**	**0.27**	**0.29**	**3.14**

Deposit	Reserve Category	Material (Mt)	HM (%)	Valuable HM Assemblage			
				Zircon (%)	HiTi Leuc (%)	Leucoxene (%)	Ilmenite (%)
Thunderbird	Proved	115.1	13.7	7.4	2.1	2.1	26.8
	Probable	567.6	10.9	7.8	2.5	2.6	27.9
	Total	**682.7**	**11.3**	**7.7**	**2.4**	**2.5**	**27.7**

Calculations have been rounded to the nearest 100,000 tonne, 0.1% grade. Differences may occur due to rounding. The Valuable HM Grade (in-situ) is determined by multiplying the percentage of HM by the percentage of each valuable heavy mineral within the heavy mineral assemblage. The Valuable HM Assemblage is reported as a percentage of the heavy mineral (HM). This Ore Reserve is reported by economic cut-off with appropriate consideration of modifying factors, costs, mineral assemblage, process recoveries and product pricing.

Table 2: Sheffield's contained Valuable HM (VHM) Resource inventory at 31 July 2015

Deposit	Resource Category	Zircon (kt)*	Rutile (kt)*	HiTi Leuc. (kt)*	Leuc. (kt)*	Ilmenite (kt)*	**Total VHM (kt)***
Thunderbird	Measured	1,700	-	500	500	5,800	**8,400**
Thunderbird	Indicated	14,000	-	4,500	5,300	46,700	**70,500**
Thunderbird	Inferred	2,800	-	900	1,200	9,300	**14,200**
Yandanooka	Measured	13	2	-	3	87	**105**
Yandanooka	Indicated	250	77	-	78	1,450	**1,850**
Yandanooka	Inferred	4	1	-	2	23	**29**
Durack	Indicated	142	29	-	47	715	**933**
Durack	Inferred	26	4	-	12	123	**166**
Drummond Crossing	Indicated	143	102	-	37	540	**822**
Drummond Crossing	Inferred	6	5	-	1	28	**41**
Ellengail	Inferred	92	90	-	20	658	**860**
West Mine North	Measured	16	35	-	35	198	**283**
West Mine North	Indicated	59	81	-	45	502	**687**
McCalls	Inferred	3,490	1,060	-	2,560	42,800	**49,900**
Total	Measured	1700	-	500	500	6,100	**8,800**
Total	Indicated	14,600	300	4,500	5,500	49,900	**74,800**
Total	Inferred	6,400	1,200	900	3,800	52,900	**65,200**
Total	**All**	**22,800**	**1,500**	**5,900**	**9,700**	**108,900**	**148,800**

All tonnages have been rounded to reflect the relative uncertainty of the estimate, thus sum of columns may not equal. The contained VHM tonnages 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 3.

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

Table 3: Sheffield's HMS Mineral Resource[2] Inventory at 31 July 2015

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	230	2.1	9.4	19	10	21	7.9	-	2.2	2.1	27
	Thunderbird	Indicated	3.0	2410	2.0	6.9	16	8	167	8.4	-	2.7	3.1	28
	Thunderbird	Inferred	3.0	600	2.0	5.6	16	9	33	8.4	-	2.8	3.5	28
	Total Dampier	**All**	**3.0**	**3,240**	**2.0**	**6.9**	**16**	**9**	**222**	**8.3**	**-**	**2.7**	**3.1**	**28**
Eneabba	Yandanooka	Measured	0.9	3	2.0	4.1	15	14	0.1	10	1.9	-	2.2	72
	Yandanooka	Indicated	0.9	90	2.0	2.3	16	15	2.1	12	3.7	-	3.7	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	12	3.6	-	3.7	69
	Durack	Indicated	0.9	50	2.0	2.0	15	21	1.0	14	2.8	-	4.6	70
	Durack	Inferred	0.9	15	1.9	1.2	14	17	0.2	14	2.4	-	6.7	67
	Durack	All	0.9	65	2.0	1.8	15	20	1.2	14	2.8	-	4.9	70
	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	9.9	-	2.8	55
	Drummond Crossing	All	1.1	52	2.0	2.1	16	9	1.1	14	10	-	3.6	53
	Ellengail	Inferred	0.9	46	2.0	2.2	16	2	1.0	9	8.7	-	1.9	64
	Ellengail	All	0.9	46	2.0	2.2	16	2	1.0	9	8.7	-	1.9	64
	West Mine North	Measured	0.9	6	2.0	5.6	15	1	0.4	4	9.6	-	9.5	54
	West Mine North	Indicated	0.9	36	1.9	2.3	13	3	0.8	7	9.6	-	5.4	60
	West Mine North	All	0.9	43	1.9	2.8	13	3	1.2	6	9.6	-	6.6	58
	Total Eneabba	Measured	Var.	9	2.0	5.2	15	5	0.5	6	7.7	-	7.7	59
	Total Eneabba	Indicated	Var.	225	2.0	2.2	15	13	5.0	12	5.8	-	4.2	64
	Total Eneabba	Inferred	Var.	68	2.0	1.9	15	6	1.3	10	7.7	-	2.7	64
	Total Eneabba	**All**	**Var.**	**302**	**2.0**	**2.2**	**15**	**11**	**6.8**	**11**	**6.3**	**-**	**4.1**	**64**
McCalls	McCalls	Inferred	0.9	4,431	2.3	1.2	27	1.4	53	7	2.0	-	4.8	81
	Total McCalls	**All**	**0.9**	**4,431**	**2.3**	**1.2**	**27**	**1.4**	**53**	**7**	**2.0**	**-**	**4.8**	**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 TiO_2 minerals defined according to the following ranges: Rutile >95% TiO_2; Leucoxene 85-95% TiO_2; Ilmenite <55-85% TiO_2; 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% TiO_2 >90% Liberation; Leucoxene: 70-94% TiO_2 >90% Liberation; High Titanium Leucoxene (HiTi Leucoxene): >94% TiO_2 >90% Liberation; and Zircon: 66.7% ZrO_2+HfO_2 >90% Liberation. Non-magnetic fractions were submitted for XRF analysis and minerals determined as follows: Zircon: ZrO_2+HfO_2/0.667 and High Titanium Leucoxene (HiTi Leucoxene): TiO_2/0.94. [3] West Mine North, Drummond Crossing, Durack and McCalls deposits are reported below 35% slimes cut-off.

Appendix 2: JORC (2012) Table 1 Report (Dampier Project Regional Exploration drilling results)

Section 1 Sampling Techniques and Data

(Criteria in this section apply to all succeeding sections.)

Criteria	JORC Code explanation	Commentary
Sampling techniques	• *Nature and quality of sampling (eg cut channels, random chips, or specific specialised industry standard measurement tools appropriate to the minerals under investigation, such as down hole gamma sondes, or handheld XRF instruments, etc). These examples should not be taken as limiting the broad meaning of sampling.* • *Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used.* • *Aspects of the determination of mineralisation that are Material to the Public Report.* • *In cases where 'industry standard' work has been done this would be relatively simple (eg 'reverse circulation drilling was used to obtain 1 m samples from which 3 kg was pulverised to produce a 30 g charge for fire assay'). In other cases more explanation may be required, such as where there is coarse gold that has inherent sampling problems. Unusual commodities or mineralisation types (eg submarine nodules) may warrant disclosure of detailed information.*	• 90mm diameter aircore drilling used to collect 2-3kg samples at 1.5m intervals down-hole. • Mineral Sands Industry-standard drilling technique.
Drilling techniques	• *Drill type (eg core, reverse circulation, open-hole hammer, rotary air blast, auger, Bangka, sonic, etc) and details (eg core diameter, triple or standard tube, depth of diamond tails, face-sampling bit or other type, whether core is oriented and if so, by what method, etc).*	• Aircore system approx. 90mm diameter holes. • Blade drill bit used • Where hard rock layers were intersected and unable to drill with blade bit, a Reverse Circulation (RC) hammer was used. • Drill system used as an industry standard.
Drill sample recovery	• *Method of recording and assessing core and chip sample recoveries and results assessed.* • *Measures taken to maximise sample recovery and ensure representative nature of the samples.* • *Whether a relationship exists between sample recovery and grade and whether sample bias may have occurred due to preferential loss/gain of fine/coarse material.*	• Sample quality (including wet vs. dry and qualitative recovery) is logged at the drill site. • Orientation process undertaken at the beginning of program to set up sampling system to collect 2-3kg sub-sample from 1.5m intervals. • Sample weight recorded at laboratory • Drill system is optimised for HMS. • Duplicate samples are collected at the drill site (see below) to enable analysis of data precision. • The sample quality is considered appropriate, for example, to establish context of exploration results and support Mineral Resource estimation.
Logging	• *Whether core and chip samples have been geologically and geotechnically logged to a level of detail to support appropriate Mineral Resource estimation, mining studies and metallurgical studies.* • *Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc) photography.* • *The total length and percentage of the relevant intersections logged.*	• Every drill sample is washed and panned, then geologically logged on-site in 1.5m intervals, recording primary, secondary and oversize lithology, qualitative hardness, grainsize, rounding, sorting, and washability, visual estimates of HM%, SL% and OS%, and depth to water table. • The entire length of the drill hole is logged; minimum (nominal) interval length is 1.5m. • Logging is suitable such that interpretations of grade and deposit geology can be used, for example, to establish context of exploration results and support Mineral Resource estimation.
Sub-sampling techniques and sample	• *If core, whether cut or sawn and whether quarter, half or all core taken.* • *If non-core, whether riffled, tube sampled,*	**HM%, SL% OS% Determination** Drill Site • 2-3kg sample collected at 1.5m intervals in

Criteria	JORC Code explanation	Commentary
preparation	*rotary split, etc and whether sampled wet or dry.* • *For all sample types, the nature, quality and appropriateness of the sample preparation technique.* • *Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples.* • *Measures taken to ensure that the sampling is representative of the in situ material collected, including for instance results for field duplicate/second-half sampling.* • *Whether sample sizes are appropriate to the grain size of the material being sampled.*	numbered bags at the drill site via rotary splitter at cyclone discharge point. • Duplicate samples (field duplicates) collected at drill site 1 in every 40 samples. • Reference standard and blank material samples inserted 1 each in every 40 samples. • Sample submitted to external laboratory for heavy liquid separation (HLS) determination of weight per cent heavy mineral (HM), Slimes (SL) and Oversize (OS). Laboratory • 2-3kg drill sample sub-split via rotary splitter to approx. 200g for analysis. • HM, SL and OS calculated as percentage of total sample weight. • Laboratory repeats are conducted 1 in every 20 samples, and laboratory reference standard inserted 1 in every 40 samples. All • Spacing of duplicate, standard, blank and lab repeat samples are designed to identify sample misplacement or misallocation during sample collection and laboratory analysis. • Sample representivity and data precision has been determined as acceptable through analysis of results from field duplicate samples and laboratory repeats. • Visual estimates of HM, Slimes and OS logged at the drill site are compared against laboratory results to identify any major errors. • Analysis of duplicates show the data has acceptable precision, indicating sampling techniques are appropriate for the deposit style. • Techniques are considered appropriate for use in public reporting of exploration results and Mineral Resource estimation.
Quality of assay data and laboratory tests	• *The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total.* • *For geophysical tools, spectrometers, handheld XRF instruments, etc, the parameters used in determining the analysis including instrument make and model, reading times, calibrations factors applied and their derivation, etc.* • *Nature of quality control procedures adopted (eg standards, blanks, duplicates, external laboratory checks) and whether acceptable levels of accuracy (ie lack of bias) and precision have been established.*	**HM%, SL% OS% Determination** • Assay and laboratory procedures are industry standard for HMS, although laboratories' methods and heavy liquid composition vary slightly. TBE (2.96g/ml) is used for these results. • Method produces a total grade as weight per cent of the initial sample. • Method does not determine the relative amounts of valuable (saleable or marketable) and non-valuable heavy mineral species. • QAQC sample frequency is described above. The HM reference sample used is a field-homogenised bulk sample with expected values and ranges determined internally from assay results. Blank material used is commercially available builder's sand. • Reference standards and blanks are examined for performance over time and within laboratory batches. Batches or sub-batches are re-analysed if unacceptable QAQC data are returned. • Analysis of reference standards, blanks and laboratory repeats show the data to be of acceptable accuracy and precision for use in public reporting of exploration results and Mineral Resource estimation.
Verification of sampling and assaying	• *The verification of significant intersections by either independent or alternative company personnel.* • *The use of twinned holes.* • *Documentation of primary data, data entry*	• Significant intervals are reviewed by senior Sheffield personnel prior to release. • Data is logged electronically using "validation at point of entry" systems prior to storage in the Company's drill hole database, which is managed by Company personnel and an

Criteria	JORC Code explanation	Commentary
	procedures, data verification, data storage (physical and electronic) protocols. • *Discuss any adjustment to assay data.*	external consultancy. • Documentation related to data custody and validation are maintained on the Company's' server. • No assay data have been adjusted.
Location of data points	• *Accuracy and quality of surveys used to locate drill holes (collar and down-hole surveys), trenches, mine workings and other locations used in Mineral Resource estimation.* • *Specification of the grid system used.* • *Quality and adequacy of topographic control.*	• Drill hole collar locations were determined by handheld GPS with expected accuracy of +/- 15m horizontal. • RL was determined by projection to a regional DTM model created from SRTM data. • Coordinates are referenced to the Map Grid of Australia (MGA) zone 51 on the Geographic Datum of Australia (GDA94), RL are AHD. • The quality and accuracy of the topographic control is considered sufficient for the reporting of exploration results.
Data spacing and distribution	• *Data spacing for reporting of Exploration Results.* • *Whether the data spacing and distribution is sufficient to establish the degree of geological and grade continuity appropriate for the Mineral Resource and Ore Reserve estimation procedure(s) and classifications applied.* • *Whether sample compositing has been applied.*	• See figures in body of announcement for drill hole spacing. • Significant intervals are reported as indicated in the relevant table(s) in the body of the announcement.
Orientation of data in relation to geological structure	• *Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type.* • *If the relationship between the drilling orientation and the orientation of key mineralised structures is considered to have introduced a sampling bias, this should be assessed and reported if material.*	• Mineralisation is generally flat-lying, vertical drill holes therefore approximate true thickness and perpendicular intersection of mineralisation. • The strike direction of the mineralisation is not known at this early stage, and therefore across-strike widths of the mineralisation are approximations only. Additional work is required to define this further.
Sample security	• *The measures taken to ensure sample security.*	• Sample security is not considered a significant risk given the location of the deposit and bulk nature of mineralisation. • Nevertheless, the use of recognised transport providers, and sample dispatch procedures directly from the field to the laboratory are considered sufficient to ensure appropriate sample security.
Audits or reviews	• *The results of any audits or reviews of sampling techniques and data.*	• No formal external audits or review of sample techniques or data have been conducted. • Audits are not considered necessary at this stage, Industry-standard methods are being employed.

Section 2 Reporting of Exploration Results

(Criteria listed in the preceding section also apply to this section.)

Criteria	Statement	Commentary
Mineral tenement and land tenure status	• *Type, reference name/number, location and ownership including agreements or material issues with third parties such as joint ventures, partnerships, overriding royalties, native title interests, historical sites, wilderness or national park and environmental settings.* • *The security of the tenure held at the time of reporting along with any known impediments to obtaining a licence to operate in the area.*	• The exploration results reported are from Exploration Licences held 100% by Sheffield Resources Ltd located on the Dampier Peninsula about 60km west of Derby and north of the sealed Great Northern Hwy joining Derby and Broome. • The results are from the following tenements. E04/2084 was granted on 22/03/2013 and is due to expire on 21/03/2018. E04/2193 and E04/2194 were granted on 01/11/2012 and are due to expire on 31/10/2017. • There are no known or experienced impediments to obtaining a licence to operate in the area. • Sheffield has been operating successfully in the region for more than 4 years to date.
Exploration	• *Acknowledgment and appraisal of exploration*	• No previous exploration is relevant to the area

Criteria	Statement	Commentary
done by other parties	*by other parties.*	reported.
Geology	• *Deposit type, geological setting and style of mineralisation.*	• The Dampier Project is within the Canning Basin in the Kimberley region of Western Australia. The Canning Basin is an intracratonic basin which contains Ordovician to Cretaceous deposits covered by Cenozoic sediments. • The drilling is within deeply weathered Cretaceous-aged formations. • Sheffield is exploring for Heavy Mineral Sand deposits in offshore depositional settings, similar to that of the nearby Thunderbird deposit. • No analysis of HM assemblage has been conducted on the samples to date, however visual examination indicates a substantial proportion of valuable heavy minerals are present. Further work will be required to determine the HM assemblage.
Drill hole Information	• *A summary of all information material to the understanding of the exploration results including a tabulation of the following information for all Material drill holes:* ○ *easting and northing of the drill hole collar* ○ *elevation or RL (Reduced Level – elevation above sea level in metres) of the drill hole collar* ○ *dip and azimuth of the hole* ○ *down hole length and interception depth* ○ *hole length.* • *If the exclusion of this information is justified on the basis that the information is not Material and this exclusion does not detract from the understanding of the report, the Competent Person should clearly explain why this is the case.*	• Information relating to the number of drill holes, assayed samples, location accuracy, orientation etc. is included in this table, and in the body of the announcement. • Diagrams in the body of the announcement show the location of and distribution of drill holes.
Data aggregation methods	• *In reporting Exploration Results, weighting averaging techniques, maximum and/or minimum grade truncations (e.g. cutting of high grades) and cut-off grades are usually Material and should be stated.* • *Where aggregate intercepts incorporate short lengths of high grade results and longer lengths of low grade results, the procedure used for such aggregation should be stated and some typical examples of such aggregations should be shown in detail.* • *The assumptions used for any reporting of metal equivalent values should be clearly stated.*	• Criteria for calculating significant intervals are included at the end of Table 1 in the body of the announcement. Minimum widths, maximum internal waste intervals and cut-off grades have been selected to most-appropriately represent the mineralisation, taking into account the early-stage, reconnaissance nature of the drill program. No “high” or “top-cuts” are applied. Higher-grade components of significant intervals are detailed in Table 1 preceded by the term *“including”.*
Relationship between mineralisation widths and intercept lengths	• *These relationships are particularly important in the reporting of Exploration Results.* • *If the geometry of the mineralisation with respect to the drill hole angle is known, its nature should be reported.* • *If it is not known and only the down hole lengths are reported, there should be a clear statement to this effect (e.g. ‘down hole length, true width not known’).*	• Regionally, mineralisation is generally flat-lying to 5deg. dip, vertical drill holes therefore approximate true thickness. • There is not enough information to determine these relationships at this stage, and so the regional interpretation is applied.
Diagrams	• *Appropriate maps and sections (with scales) and tabulations of intercepts should be included for any significant discovery being reported These should include, but not be limited to a plan view of drill hole collar locations and appropriate sectional views.*	• See body of announcement.
Balanced reporting	• *Where comprehensive reporting of all Exploration Results is not practicable, representative reporting of both low and high grades and/or widths should be practiced to*	• All current drill hole results are reported in this announcement. Where results do not meet the criteria of significant interval these are reported in Table 1 as “no significant interval”.

Criteria	Statement	Commentary
	avoid misleading reporting of Exploration Results.	• All information considered material to the reader's understanding of the exploration results have been reported.
Other substantive exploration data	• *Other exploration data, if meaningful and material, should be reported including (but not limited to): geological observations; geophysical survey results; geochemical survey results; bulk samples – size and method of treatment; metallurgical test results; bulk density, groundwater, geotechnical and rock characteristics; potential deleterious or contaminating substances.*	• Where relevant this information has been referred to in the body of this announcement.
Further work	• *The nature and scale of planned further work (eg tests for lateral extensions or depth extensions or large-scale step-out drilling).* • *Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive.*	• The results reported are from a regional scale exploration program. Additional drilling is required to further define the significance of these results (as stated in the body of the announcement). • Further work is planned, comprising additional drilling and mineral assemblage analysis.