ASX and Media Release

25 October 2011

1Mt CONTAINED HM INFERRED RESOURCE AT ELLENGAIL

KEY POINTS

- **Inferred Resource of 46.45 million tonnes (Mt) @ 2.2% of heavy mineral (HM),containing 1.040Mt HM estimated for the Ellengail project**
- **Includes a high grade core of 11.25Mt at 5.0% HM containing 560,000t HM (Inferred)**
- **Ellengail has a high value mineral assemblage: 8.9% zircon, 8.7% rutile, 63.5% ilmenite and 1.9% leucoxene**
- **Sheffield's resource inventory boosted to 2.88Mt contained HM, including 305,000t zircon and 216,000t rutile**

Bulk minerals explorer Sheffield Resources ("Sheffield") (ASX:SFX) today announced an Inferred Resource for its Ellengail heavy mineral sand (HMS) project, located 7km west of Eneabba in Western Australia's mid-west region, of **46.45Mt @ 2.2% HM** for **1.040Mt of contained HM,** including an Inferred Resource for the high grade core to the deposit of **11.25Mt at 5.0% HM** for **560,000t of contained HM** (Table 2).

Managing Director, Bruce McQuitty said the Ellengail resource builds upon Sheffield's recent success in the North Perth Basin, and follows the release on 16 August of a resource estimate for the Yandanooka deposit.

"*The Ellengail resource is an important milestone in Sheffield's near-term strategy to build a significant mineral sands resource base in the North Perth Basin.*"

"*We have a large pipeline of mineral sand projects queued for exploration and evaluation work. The West Mine North deposit, located just 3km south of Ellengail, is scheduled for resource estimation work next, followed by the large McCalls deposit," he said.*

Sheffield purchased the Ellengail and West Mine North projects from Iluka just 10 months ago. Iluka retains a 1.5% royalty. Recent surges in titanium dioxide and zircon prices further support Sheffield's strategy to build a resource base in the Mid-West, and to investigate the sequential mining of these deposits utilising a flexible mobile plant.

Table 1: Sheffield Resources' contained Valuable HM (VHM) Resource inventory (0.9% HM cutoff)*.

Deposit	Resource Category	Zircon (kt)	Rutile (kt)	Leuc. (kt)	Ilmenite (kt)	**Total VHM (kt)**
Yandanooka	Indicated	201	117	168	1,072	**1,558**
Yandanooka	Inferred	12	8.5	15	73	**108**
Ellengail	Inferred	92	90	20	658	**860**
Total	Indicated	201	117	168	1,072	**1,558**
Total	Inferred	104	99	35	730	**968**
Total	**All**	**305**	**216**	**203**	**1,802**	**2,527**

Ellengail is typical of the Eneabba deposits mined in the region for many years and has a high value assemblage of 83% valuable heavy mineral, comprising 8.9% zircon, 8.7% rutile, 63.5% ilmenite and 1.9% leucoxene.

The Ellengail resource estimate is based entirely on historic drilling by Iluka Resource Ltd and RGC Ltd, who completed close-spaced drilling on the deposit. This reliance on historic data has influenced the Inferred Resource categorisation, even though the mineralisation exhibits strong continuity throughout the deposit. Sheffield plans to complete further drilling at Ellengail in 2012 to allow a higher confidence resource category to be applied.

Table 2: Ellengail Project – Mineral Resources[1] as at 25 October 2011, at a 0.9% HM cutoff.

Domain	Resource Category	Material (Mt)*	Bulk Density	HM %	Slimes %	Osize %	**In-situ HM (kt)***	Mineral Assemblage[2] Zircon %	Rutile %	Leuc. %	Ilmenite %
HG Core	Inferred	11.25	2.0	5.0	15.4	2.6	**560**	8.9	8.7	1.9	63.5
LG Main	Inferred	11.50	1.9	1.3	14.6	0.8	**150**	8.9	8.7	1.9	63.5
LG East	Inferred	11.65	2.0	1.2	18.8	3.7	**150**	8.9	8.7	1.9	63.5
LG West	Inferred	8.10	1.9	1.6	14.2	0.8	**130**	8.9	8.7	1.9	63.5
LG West Lower	Inferred	3.95	1.9	1.3	13.1	2.1	**50**	8.9	8.7	1.9	63.5
Total	**Inferred**	**46.45**	**2.0**	**2.2**	**15.6**	**2.1**	**1,040**	**8.9**	**8.7**	**1.9**	**63.5**

Table 3: Ellengail Project – Mineral Resources[1] as at 25 October 2011, at a 1.5% HM cutoff.

Domain	Resource Category	Material (Mt)*	Bulk Density	HM %	Slimes %	Osize %	**In-situ HM (kt)***	Mineral Assemblage[2] Zircon %	Rutile %	Leuc. %	Ilmenite %
HG Core	Inferred	11.25	2.0	5.0	15.4	2.6	**559**	8.9	8.7	1.9	63.5
LG Main	Inferred	1.15	1.9	1.6	10.1	0.8	**19**	8.9	8.7	1.9	63.5
LG East	Inferred	1.00	2.1	1.8	20.1	5.6	**18**	8.9	8.7	1.9	63.5
LG West	Inferred	3.90	1.9	2.1	12.2	0.8	**80**	8.9	8.7	1.9	63.5
LG West Lower	Inferred	0.25	1.9	1.5	10.6	0.5	**3.5**	8.9	8.7	1.9	63.5
Total	**Inferred**	**17.55**	**2.0**	**3.9**	**14.5**	**2.2**	**680**	**8.9**	**8.7**	**1.9**	**63.5**

Table 4: Sheffield Resources' Mineral Resource[1] inventory at a 0.9% HM cutoff as at 25 October 2011.

Deposit	Resource Category	Material (Mt)*	Bulk Density	HM %	Slimes %	Osize %	**In-situ HM (Mt)***	Mineral Assemblage[2] Zircon %	Rutile %	Leuc. %	Ilmenite %
Yandanooka	Indicated	61.00	2.0	2.8	14.7	9.4	**1.72**	11.7	6.8	9.8	62.3
Yandanooka	Inferred	10.75	1.9	1.1	12.9	9.0	**0.12**	10.1	7.0	12.5	59.8
Yandanooka	Total	71.75	2.0	2.6	14.4	9.3	**1.84**	11.5	6.9	10.2	61.9
Ellengail	Inferred	46.45	2.0	2.2	15.6	2.1	**1.040**	8.9	8.7	1.9	63.5
Ellengail	Total	46.45	2.0	2.2	15.6	2.1	**1.040**	8.9	8.7	1.9	63.5
Total	Indicated	61.00	2.0	2.8	14.7	9.4	**1.72**	11.7	6.8	9.8	62.3
Total	Inferred	57.20	2.0	2.0	15.1	3.4	**1.16**	9.1	8.4	3.9	62.8
Total	**All**	**118.25**	**2.0**	**2.4**	**14.9**	**6.5**	**2.88**	**10.5**	**7.6**	**6.9**	**62.6**

*Tonnes have been rounded to reflect the relative uncertainty of the estimate.

[1] This estimate is classified and reported in a manner compliant with the JORC code and guidelines (JORC, 2004).

[2] The Mineral Assemblage is represented as the percentage of the Heavy Mineral (HM) component of the deposit, as determined by QEMSCAN. TiO_2 minerals defined according to the following ranges: Rutile >95% TiO_2; Leucoxene 85-95% TiO_2; Ilmenite <55-85% TiO_2.

About the Ellengail Deposit

Ellengail is on one of a number of parallel heavy mineral strandlines in the Eneabba region. It is situated on vacant crown land just 5km from an existing sealed highway (the Brand Highway), with Eneabba 7km to the east, and Geraldton Port only 110km by road to the north (Figure 1).

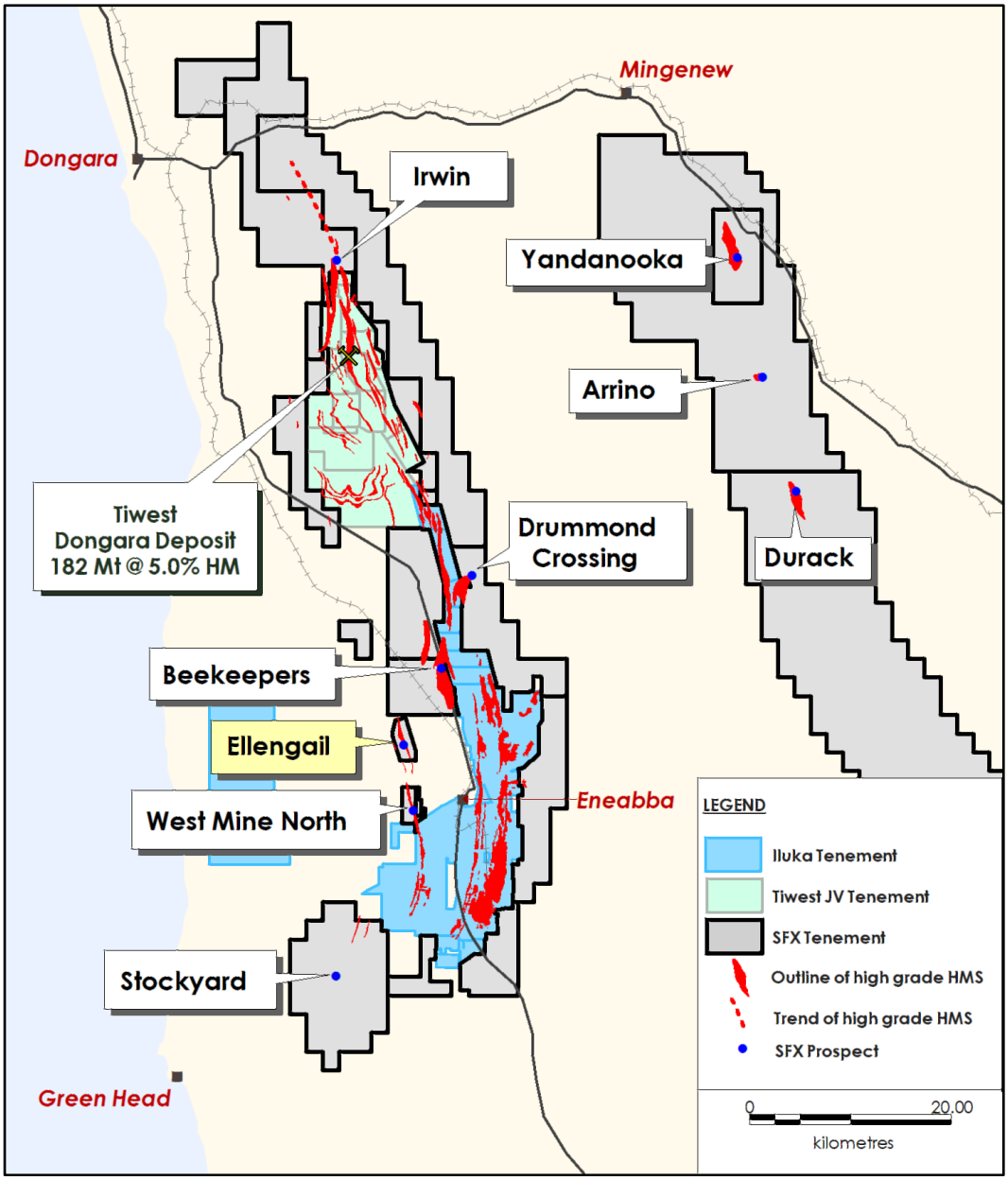

Figure 1: Location of Sheffield's Ellengail and other HMS Projects in the Eneabba Region

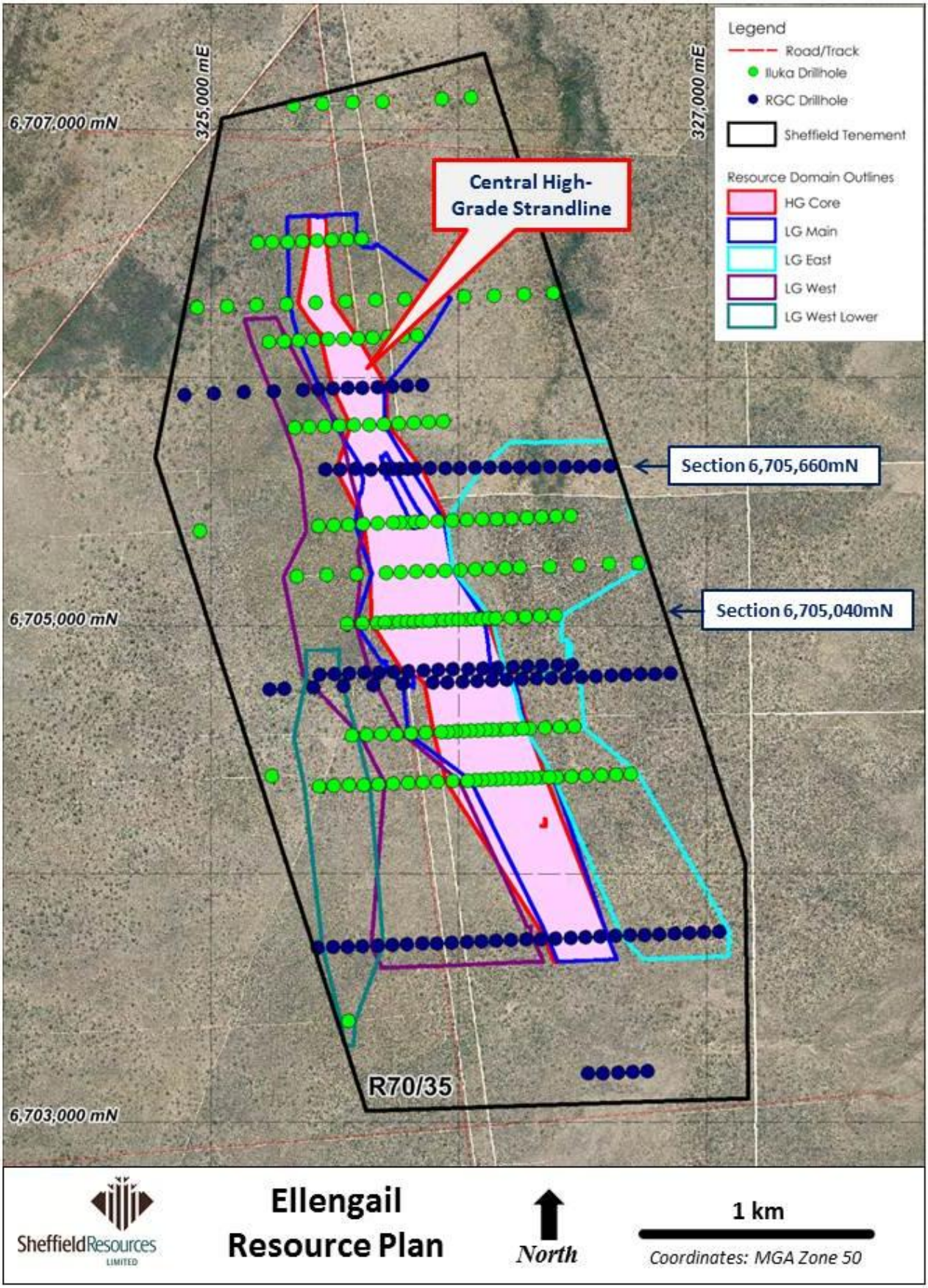

Figure 2: Plan view of the Ellengail Deposit showing holes collars and resource domain outlines

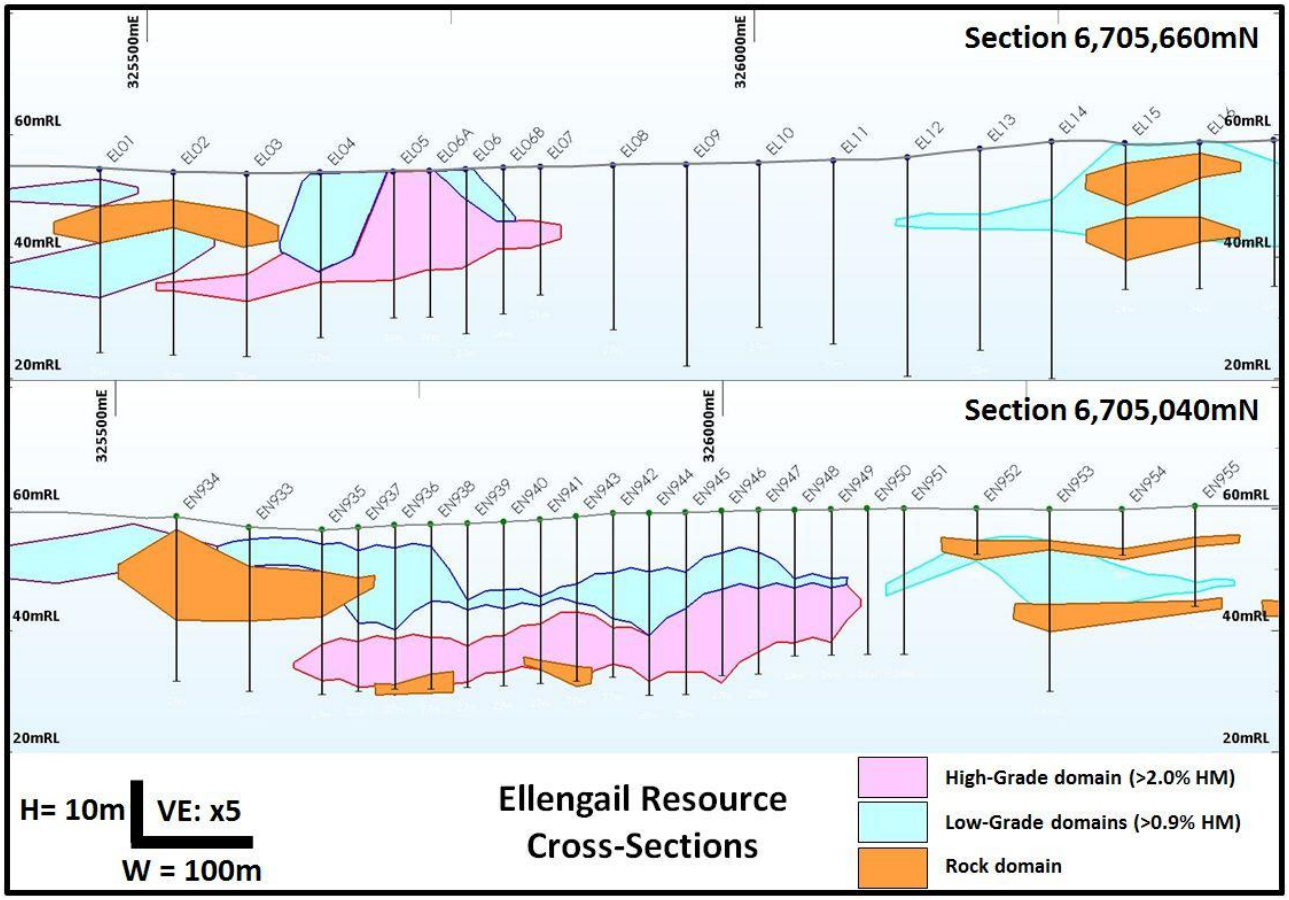

Figure 3: Typical cross-sections, looking north, through the Ellengail deposit showing resource domain outlines and drill holes.

The deposit has a central high-grade (>2% HM) core surrounded by 4 lower grade (>0.9% HM) zones interpreted to be dunal-style mineralisation. The deposit area is 3.2km long by up to 1.4km wide, with individual zones typically 300-400m wide and 5m to 15m thick. Overburden varies from 0m to 15m. Laterite and cemented overburden occur on the margins of the deposit in the low grade domains, but do not affect the central high grade mineralised zone (Figures 2 & 3).

The heavy mineral assemblage is dominated by ilmenite and significant levels of zircon and rutile, with valuable HM comprising 83% of the mineral assemblage. Previous work by Iluka Resources Ltd has determined a TiO_2 content of the ilmenite of 54.7%, based on analysis of 11composite samples. Sheffield will conduct further metallurgical testing to gain information on the ilmenite quality following planned drilling in 1H 2012.

Ellengail is 6km north of West Mine North, also held by Sheffield (Figure 1). Both projects are interpreted to lie along the northern continuation of high grade strand mineralisation mined by Iluka at Eneabba West in the 1990's.

ENDS

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COMPETENT PERSONS' STATEMENT

[1]The information in this announcement that relates to resource estimation is based on information compiled under the guidance of John Vann. Mr Vann is a Principal of Quantitative Group and acts as a consultant to the Company. Mr Vann is a Fellow of the Australasian Institute of Mining and Metallurgy and a Fellow of the Australasian Institute of Geoscientists and has sufficient experience which is relevant to the style of mineralisation and type of deposit under consideration and the activity to which they are undertaking to qualify as Competent Person as defined in the 2004 Edition of the 'Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves ("JORC Code")'. Mr Vann consents to the inclusion in the report of the matters based on their information in the form and context in which it appears.

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

FORWARD LOOKING AND EXPLORATION TARGET STATEMENTS

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

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 @ 25cps - $14.7m
Issued shares – 58.7m	Cash - $4.1 (at 30/6/2011)

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

TALC

Sheffield has 1,152km^2 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 Imerys 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^2 of mineral sands tenure in the established North Perth Basin mineral sands province and the emerging Carnarvon, Eucla and Canning Basin provinces.

The Dampier project, located near Derby in WA's Kimberley region is the most recent addition to Sheffield's heavy mineral sands project portfolio. Dampier is a large scale zircon play formerly explored by Rio Tinto.

Sheffield's North Perth Basin tenement package of over 2,500km^2 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 5 granted tenements and 8 tenement applications, 6 of which 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. High grade iron mineralisation has been identified on three of the Company's tenements.

ANNEXURE 1 – TECHNICAL DETAILS

The Ellengail deposit was discovered by RGC Ltd in the 1980's and 1990's with wide spaced drilling, followed up in the early 2000's by Iluka Resources Ltd who completed infill drilling to close the drill coverage.

Resources were estimated from the results of 271 vertical aircore holes for a total of 6,627m on a drilling pattern of approximately 300m to 200m x 30m to 60m. The resource drill hole database comprises entirely historic holes drilled by previous explorers: RGC 108 holes (40%) and Iluka Resources 163 holes (60%). The drill hole database was supplied by Iluka upon purchase of the tenement.

Of the total resource drill hole database, 79% of the holes have been surveyed by GPS. To account for topographic changes between sections, drill hole RL (height) data was projected to a digital elevation model (DEM) generated from spot data supplied by Landgate (accuracy +/- 1.5m). This DEM was subsequently used in the resource estimation process in order to represent a consistent land surface.

Heavy Mineral, Slimes and Oversize determinations were by Heavy Liquid Separation techniques. Holes drilled by Iluka used -53µm and 2mm screen sizes, with static separation in LST (SG 2.85), representing 49% of the samples database. Holes drilled by RGC used -75µm and 2mm screen sizes, with static separation in TBE, representing 51% of the samples database. Given the average particle size of the HM concentrate determined from QEMSCAN is 125µm, any effect on HM % caused by the larger screen size used by RGC will be to underestimate the HM grade.

Resource domains were based on a combination of grade and geological factors driven by deposit continuity. Bulk Density was determined using an industry-standard formula which assumes density and proportionately accounts for grain size and mineral component of the material.

A "rock" domain was defined from geological logging in areas where the hardness of the material was of potential concern for mining; and had potential to affect the HM assay. Assay intervals intersecting this domain were excluded from estimation, and from the resource tabulation, with a resultant conservative impact on reported tonnages.

The mineral assemblage of the resource was determined from results of QEMSCAN analysis by Bureau-Veritas in Queensland of 3 Heavy Mineral Concentrate (HMC) composite samples. The HMC samples were supplied by Iluka with the purchase of the project. Two composites were from the High-Grade Core domain, one was from the Low-Grade Main domain. Results from the three composites were averaged to apply across the entire deposit.

QEMSCAN uses observed mass and chemistry to classify minerals according to specific breakpoints, especially with regard to the TiO_2 minerals (rutile >95% TiO_2; leucoxene 85-95% TiO_2; ilmenite <55-85% TiO_2). Sheffield has selected breakpoints for the TiO_2 minerals which most-closely compare with mineral assemblage data defined by Iluka Resources for the region.

Resource estimation was by Trent Strickland, who is a full time employee of Quantitative Group (QG). QG is an internationally recognised, independent consultancy group specialising in resource evaluation. This estimate was prepared under the supervision of, and with technical review by, John Vann[1] who is a full time employee of QG. John Vann acts as the Competent Person for the resource estimate while Mark Teakle[2] acts as the Competent Person with respect to the reporting of resource and exploration results. Details of the estimation methodology are contained in Annexure 2.

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Strategic Mine Planning
Geometallurgical Modelling
Mine Geology
Training

Sheffield Resources Ltd
14 Prowse Street
West Perth WA 6005

Attention: Mr Bruce McQuitty

21 October 2011

Dear Sir,

Re: Ellengail Mineral Sands Deposit Resource Estimate

The mineral resource estimate of the Ellengail Mineral Sands deposit as of the 21st of October 2011 is presented in the attached tables (Table 1 & 2).

The estimate was prepared by Mr Trent Strickland under the supervision and technical review of Mr John Vann. Trent Strickland is a full time employee of Quantitative Group (QG) and a Member of the Australasian Institute of Mining and Metallurgy (AusIMM). John Vann is a Director and Principal Consultant of QG and a Fellow of both the AusIMM and the Australian Institute of Geoscientists (AIG). Mr Vann has over 25 years experience in the minerals industry, including 18 as a consultant Geostatistician, and 10 years as Director of QG. Mr. Vann has sufficient experience to satisfy the requirements to act as the competent person for this estimate as defined in the 2004 Edition of the Australasian Code for Reporting of Mineral Resources and Ore Reserves. Mr Vann consents to the inclusion in this report of the Ellengail Mineral Sands resource estimate.

Yours faithfully,

John Vann
Principal Consultant / Director

Quantitative Group
Our Skills On *Your* Team™

Geostatistics
Resources & Reserves
Reconciliation & Grade Control
Audit and Due Diligence
Strategic Mine Planning
Geometallurgical Modelling
Mine Geology
Training

Technical Notes on Mineral Resource Estimation

Four 0.9% Heavy Mineral (HM) grade domains were defined to model the low grade mineralisation and a 2.0% HM domain to model the high grade mineralisation. HM grade was used along with specific geological considerations to define the domain wireframes. The robustness of these domains was assessed by QG using a variety of measures including statistical analysis and by critically examining the geological interpretation, and they are considered geologically robust in the context of the resource classification applied to the estimate.

A "rock wireframe" was constructed to define areas where the hardness of the material was of potential concern for mining. Due to the possible influence of such areas on the reliability of the heavy mineral assay, all intervals intersecting the wireframe were excluded from estimation. These areas were also flagged in the model and excluded from the resource tabulation. This has a conservative impact on the reported tonnages.

Exploratory data analysis was conducted within the low grade and high grade domains, including univariate and multivariate analysis and variography. These domains were considered to be statistically sound and robust.

Estimation of heavy mineral %, heavy mineral % within the sand component, oversize % and slime % was by Ordinary Kriging (OK) and the search (or 'neighbourhood') employed was optimised using Quantitative Kriging Neighbourhood Analysis (QKNA). Density was assigned on a domain basis.

The mineral assemblage results from three Heavy Mineral Concentrate (HMC) composites from within both mineralisation types were averaged and assigned to represent the heavy mineral material within the deposit.

The estimate was checked and considered to be robust. The estimate was validated by QG as follows:

- A visual checking of the interpolation results in both plan and section;
- Global input vs. output statistics were compared, including clustered and declustered composites; and
- Semi-local input vs. output statistics using moving window averages.

The tonnes and grades of the Ellengail estimate are reported above both a 0.9 HM% and 1.5 HM% cut off.

Classification of the Ellengail estimate considered all aspects of the integrity of the estimate, including: data quality, geological interpretation, domaining approach, data distribution and density, modelling spatial continuity and estimation confidence. The entire Mineral Resource above a cut off of 0.9 HM% is classified as Inferred. The reported tonnages above 1.5 HM% are also classified as Inferred, but with somewhat lower confidence than those above 0.9 HM%.

The following tables summarise the Mineral Resource estimate at cut offs of 0.9 HM% (Table 1) and 1.5 HM% (Table 2). Note: material tonnes within these tables are expressed in millions of tonnes, whereas the in-situ heavy mineral tonnes are expressed in kilotonnes (KT).

Domain	Mineral Resource Category	Material Million Tonnes*	Bulk Density	HM %	Slimes %	Osize %	In-situ HM Tonnes* (KT)
HG Core	Inferred	11.25	2.0	5.0	15.4	2.6	560
LG Main	Inferred	11.50	1.9	1.3	14.6	0.8	150
LG East	Inferred	11.65	2.0	1.2	18.8	3.7	150
LG West	Inferred	8.10	1.9	1.6	14.2	0.8	130
LG West Lower	Inferred	3.95	1.9	1.3	13.1	2.1	50
Total	**Inferred**	**46.45**	**2.0**	**2.2**	**15.6**	**2.1**	**1,040**

Domain	Mineral Resource Category	In-situ HM Tonnes* (KT)	Mineral Assemblage (% of HM Tonnes)[1]				
			Zircon	Rutile	Leucoxene	Ilmenite	Total VHM
ALL DOMAINS	**Inferred**	**1,040**	**8.9**	**8.7**	**1.9**	**63.5**	**83.0**

*Tonnes have been rounded to reflect the relative uncertainity of the estimate.

[1] The Mineral Assemblage is represented as the percentage of the Heavy Mineral (HM) component of the deposit, as determined by QEMSCAN. TiO_2 minerals defined according to the following ranges: Rutile >95% TiO_2; Leucoxene 85-95% TiO_2; Ilmenite <55-85% TiO_2.

Table 1. Ellengail resource estimate at a 0.9 HM% cut off.

Domain	Mineral Resource Category	Material Million Tonnes*	Bulk Density	HM %	Slimes %	Osize %	In-situ HM Tonnes* (KT)
HG Core	Inferred	11.25	2.0	5.0	15.4	2.6	559
LG Main	Inferred	1.15	1.9	1.6	10.1	0.8	19
LG East	Inferred	1.00	2.1	1.8	20.1	5.6	18
LG West	Inferred	3.90	1.9	2.1	12.2	0.8	80
LG West Lower	Inferred	0.25	1.9	1.5	10.6	0.5	3.5
Total	**Inferred**	**17.55**	**2.0**	**3.9**	**14.5**	**2.2**	**680**

Domain	Mineral Resource Category	In-situ HM Tonnes* (KT)	Mineral Assemblage (% of HM Tonnes)[1]				
			Zircon	Rutile	Leucoxene	Ilmenite	Total VHM
ALL DOMAINS	**Inferred**	**680**	**8.9**	**8.7**	**1.9**	**63.5**	**83.0**

Table 2. Ellengail resource estimate at a 1.5 HM% cut off.