Sheffield Resources Ltd
ACN 125 811 083
7 Daglish Street Wembley WA

31 January 2011

QUARTERLY REPORT FOR PERIOD ENDING 31 DECEMBER 2010

HIGHLIGHTS

- Sheffield successfully listed on the Australian Securities Exchange (ASX) on 15 December 2010, following completion of the Company's Initial Public Offering (IPO) which closed early and heavily oversubscribed.
- The issue of 35,000,000 ordinary shares in the IPO raised $7 million, ensuring a strong financial position and adequate funding for exploration.
- Company's strategic exploration focus is on commodities geared to the steel feeds cycle (e.g. iron, tungsten) and the emerging ceramics-fillers-pigments cycle (e.g. talc, heavy mineral sands (HMS)).
- Two strategic transactions expanded Sheffield's exploration project portfolio in the world class North Perth Basin HMS province:
    1. Agreement to purchase four tenements located near Eneabba, including 3 granted mining leases, from Iluka Resources
    2. Subsequent to end of quarter, acquisition of the large McCalls HMS project – an ex-BHP project with an Exploration Target* of 1.5-2.5 Billion tonnes of between 1.1-1.3% HM.
- Sheffield's emergence as a new mineral sands explorer coincides with improving markets for HMS commodities: zircon, rutile and synthetic rutile feedstocks.

As at 31/12/10:

Issued Shares	**56.9M**	ASX Code	**SFX**	Closing Price	**$0.28**
Market Cap	**$15.9M**	Cash Reserves	**$6.4M**		

*Sheffield Resources has not yet reported Mineral Resources at McCalls and any discussion in relation to targets and Mineral Resources is conceptual in nature. There has been insufficient exploration to define a Mineral Resource and it is uncertain if further exploration will result in the determination of a Mineral Resource.

EXPLORATION

Summary

Sheffield has over 6,000km^2 of highly prospective exploration tenure, situated within the state of Western Australia (refer to Figure 1 for project locations). 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).

Sheffield has a significant presence in Western Australia's Mid-West region, where it continues to build large consolidated tenement holdings adjacent to a network of highways and railways connecting to the region's ports.

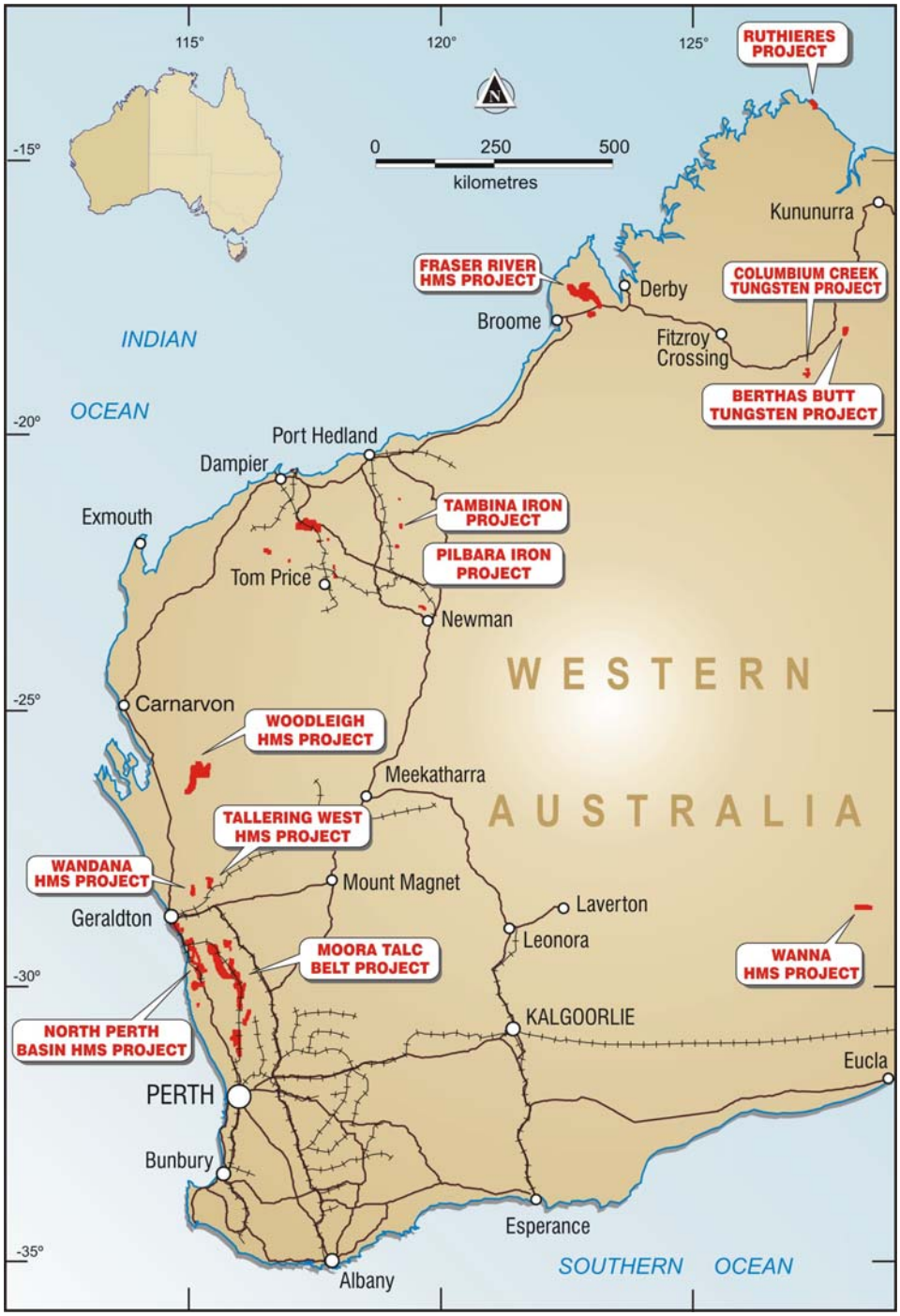

Figure 1: Location of Sheffield's exploration projects in Western Australia

During the quarter, Sheffield expanded its exploration project portfolio through new tenement applications and acquisitions.

On 29 December, the Company announced that it has entered into an agreement to purchase 4 tenements, including 3 granted mining leases, from Iluka Resources Ltd (ASX:ILU). These tenements, which comprise the West Mine North and Ellengail HMS projects, are located near Eneabba in the North Perth Basin. Both West Mine North and Ellengail contain significant concentrations of heavy minerals outlined by extensive prior drilling.

Subsequent to the end of the December quarter, on 17 January 2011, Sheffield announced the acquisition of the McCalls HMS project. McCalls is a large ex-BHP exploration project located 110km north of Perth and is well located with respect to existing infrastructure.

In addition, the Company applied for several new tenements within Western Australia covering prospective talc, heavy mineral sands, iron ore and tungsten-tin projects.

During December seven of Sheffield's tenements were granted, including those covering the high priority Yandanooka and Irwin HMS targets in the North Perth Basin. This brings the total number of granted tenements to 14 and has paved the way for field programmes to begin. Initial drilling of the talc and HMS projects is scheduled to commence late in the March quarter 2011, once access and approvals have been obtained.

Exploration expenditure during the quarter is estimated to be $157,000.

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.

North Perth Basin

Sheffield's North Perth Basin tenement package of over 2,500km^2 contains several 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 positioned close to existing mineral sands operations and to a network of highways and railway lines connecting to Geraldton and Fremantle/Kwinana ports.

West Mine North & Ellengail

On 29 December Sheffield announced that it has entered into an agreement to acquire three mining leases and a retention licence from Iluka Resources Limited (ASX:ILU).

The tenements comprise the West Mine North (M70/872, M70/965 and M70/1153) and Ellengail (R70/35) exploration projects, located near Eneabba in Western Australia's mid-west region (refer to Figure 2 for project locations).

Sheffield will purchase 100% interest in the tenements for a consideration of $150,000 and a 1.5% gross sales royalty. In addition, Sheffield has agreed to continue discussions with Iluka in relation to the sale of synthetic rutile ilmenite extracted from the tenements.

West Mine North is situated immediately along strike to the north of Iluka's Eneabba West mine and is essentially a 3km strike continuation of the high grade strand mineralisation that was dredge mined at Eneabba West in the 1990's. Ellengail lies a further 3km along strike to the north and consists of a 3km strike of strand mineralisation which, in the northern half of the deposit is overlain by near-surface lower grade dunal mineralisation (refer to Sheffield's ASX announcement of 29 December 2010 for further details).

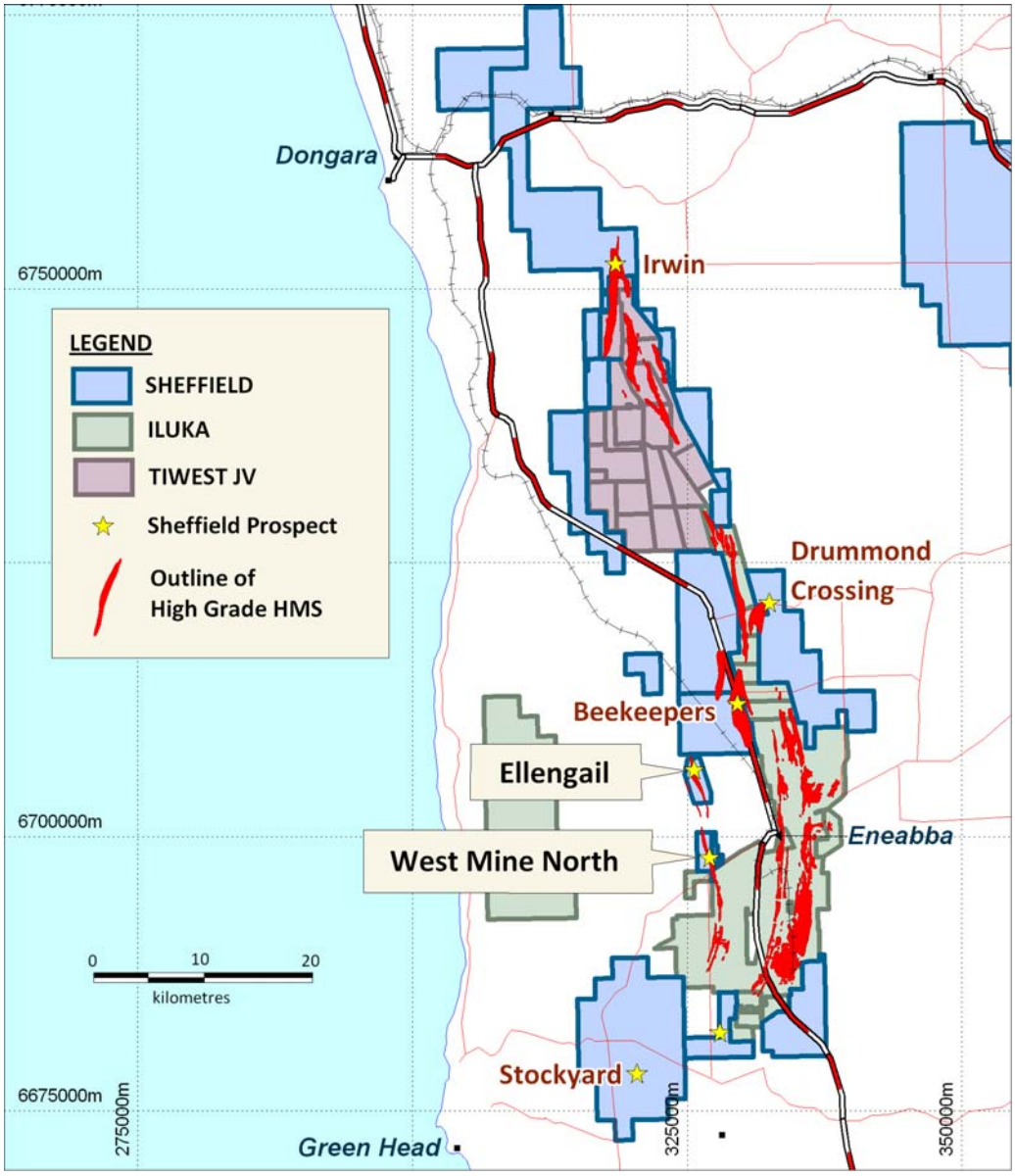

Figure 2: Sheffield's HMS projects near Eneabba

The mineral assemblage at West Mine North comprises 5.6% zircon, 6.3% rutile, 54.3% ilmenite (@ 60.7% TiO_2) and 1.6% leucoxene. The high TiO_2 ilmenite may be suitable as feed for chloride process or synthetic rutile production. The Ellengail mineral assemblage comprises 10% zircon, 3.4% rutile, 58.6% ilmenite (@ 54.7% TiO_2) and 9.2% leucoxene.

The acquisition of these tenements provides Sheffield with advanced exploration projects on granted mining tenure near existing infrastructure, offering opportunity for near-term development. The company intends to undertake initial drilling of the projects as soon as possible after transfers of title, access and regulatory approvals have been obtained.

McCalls

Subsequent to the end of the December quarter, on 17 January 2011 Sheffield announced the acquisition of the McCalls HMS project, located 110km north of Perth, from a prospecting syndicate for a consideration of $30,000 in cash and 500,000 Sheffield shares.

Following the acquisition, Sheffield is now the unencumbered holder of exploration licence application ELA70/3929 over the McCalls project which, together with Sheffield's adjacent tenements E70/3967 and ELA70/3931, form a contiguous tenement area of 471km^2 (Figure 3).

Based on results from historic drilling conducted by BHP, Sheffield considers the greater McCalls region to have an Exploration Target* of between **1.5 and 2.5 billion tonnes** grading between **1.1% and 1.3% HM**.

This exploration target is based on exploration work undertaken by BHP between 1989 and 1995. BHP drilled 252 aircore drill holes for a total of 8,054m within the area now covered by Sheffield's tenements. At McCalls, BHP's 800m x 500m spaced grid drilling outlined an area of mineralisation (>1% HM) of 30km^2, extending from near-surface to depths of typically 30-45m. To the east of McCalls, BHP's scout drilling outlined a similar area of mineralisation (>15m thick at >1%HM) which is contiguous with the main deposit.

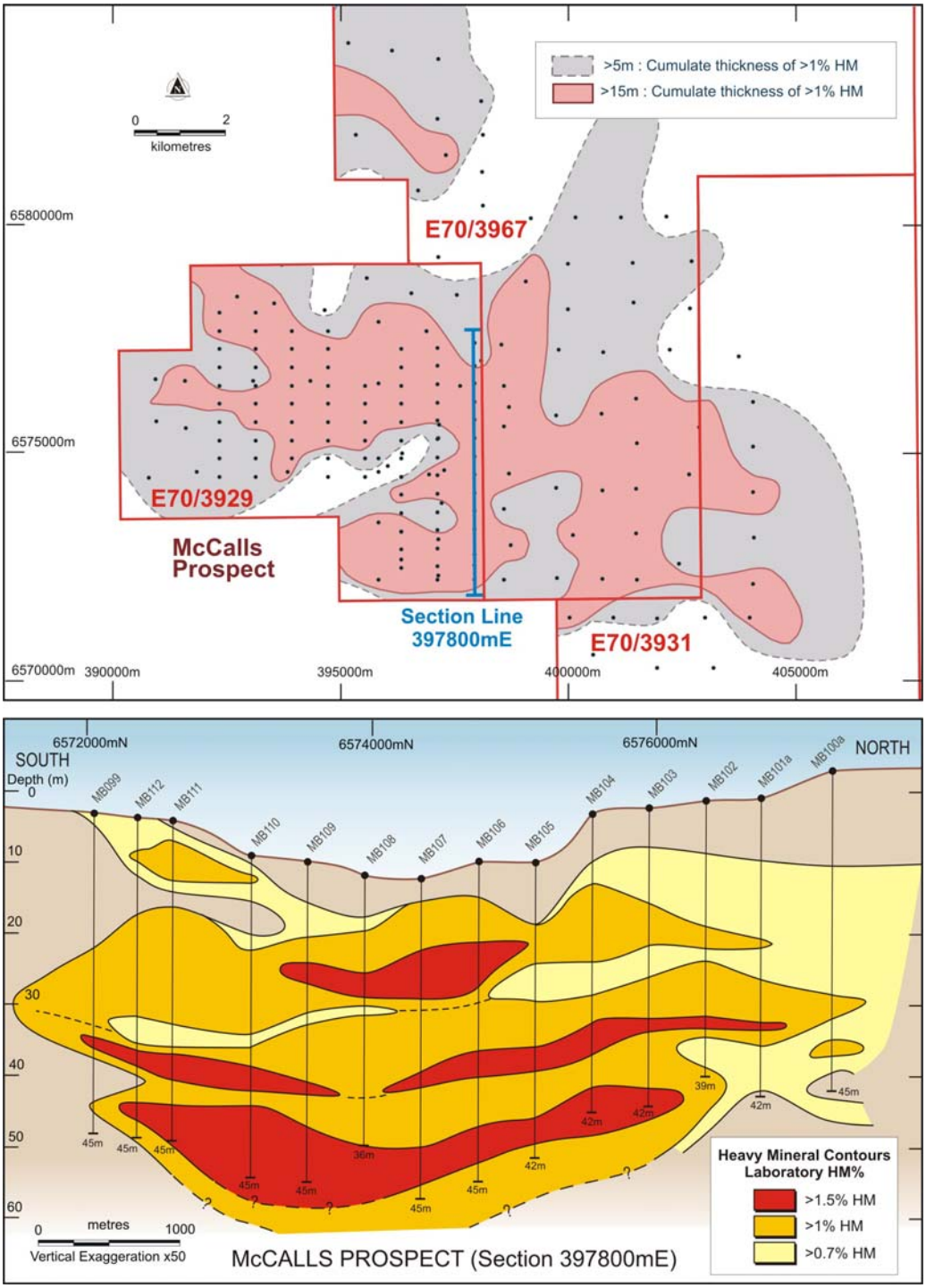

Figure 3: McCalls plan and cross section with BHP's drill holes. Note that, due to the large size of the deposit, a vertical exaggeration of 50 times has been applied to the cross section.

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BHP undertook mineralogical analysis on 21 composite drill samples from McCalls, representing just 15% of the drill holes that have tested the deposit. The average heavy mineral assemblage was determined to be: ilmenite 74.2%, zircon 4.37%, rutile 0.52%, leucoxene 4.08%, monazite 0.03%, other minerals 16.8%. The high TiO_2 content of the ilmenite (62.6%) indicates potential suitability for chloride route processing or synthetic rutile feedstock.

Sheffield considers the limited amount of assemblage work undertaken by BHP to be insufficient to define the spatial distribution of high value heavy minerals, such as zircon and rutile, within the deposit. Consequently, while the company currently regards the project as a high TiO_2 ilmenite play, it will seek to identify higher value zircon and rutile rich components to the deposit with further work.

The McCalls project is well situated with respect to existing infrastructure, including main roads, rail and power. A railway line located 10km to the east of the project connects to Fremantle/Kwinana ports approximately 160km by rail to the south and to Geraldton port 345km by rail to the north. This railway also links to Iluka Resources' Narngulu synthetic rutile plant near Geraldton and passes within 1km of Tiwest's Chandala synthetic rutile plant at Muchea, 75km to the south of McCalls.

Once the McCalls project tenements have been granted and access and regulatory approvals obtained, Sheffield intends to undertake further drilling to define higher grade zones and obtain more information on the mineral assemblage, before committing to a resource drill-out.

Fraser River (Canning Basin)

During December Sheffield applied for exploration licences totalling 700km^2 in area over the Fraser River HMS project, located 65km west of Derby in WA's Kimberley region. The project covers two significant heavy mineral sand deposits discovered between 2004 and 2009 by Rio Tinto Exploration ("RTE"). RTE's open file reports indicate the presence of extensive significant heavy mineral concentrations between 10-20m thick within sand units of the Broome Sandstone and Melligo Sandstone in the central part of the tenement block. Heavy mineral assemblages are comprised of fine grained rutile, leucoxene, ilmenite, zircon and iron oxides. The Company is continuing to review all past exploration records from the region.

TALC

Sheffield holds more than 1,000km^2 of tenure over the 175km-long Moora Talc Belt. For the past 50 years the Moora Talc Belt has been exclusively controlled by large mining companies such as Rio Tinto, WMC and Unimin.

The Moora Talc Belt includes the large Three Springs mine which is owned by Rio Tinto Limited subsidiary Luzenac Australia Pty Ltd and has been operating since 1948. Three Springs is renowned for producing high purity talc and is a relatively simple "dig-and-deliver" operation.

Within Sheffield's Moora Talc Belt project there are over twenty known talc occurrences and many more grassroots targets. During the quarter Sheffield's geologists undertook and extensive review of historical talc exploration data and have prioritised several targets for follow up drilling.

The Company also lodged two tenement applications, E70/4003 and E70/4004, to further consolidate Sheffield's dominant tenement position.

IRON

Sheffield's Pilbara iron ore projects consist of one granted tenement and 16 tenement applications, of which three (the Millstream project) are second-in-time and five are subject to ballot with multiple

competing parties. Sheffield's strategy is to target hematite mineralisation adjacent to infrastructure and to build up consolidated tenement holdings over time. Reconnaissance mapping has so far identified iron enrichment on three of the Company's tenement applications.

TUNGSTEN

Sheffield is targeting the Halls Creek Mobile Belt in WA's Kimberley region for tungsten and tin-tantalum-REE mineralisation. During the quarter, the Company applied for a single exploration licence (E80/4533) at Columbium Creek, 80km southwest of Halls Creek. The tenement covers alluvial and pegmatite-hosted tin and tantalum occurrences.

CORPORATE

Sheffield successfully listed on the Australian Securities Exchange (ASX) on 15 December 2010, following completion of the Company's Initial Public Offering (IPO) which closed early and heavily oversubscribed. The issue of 35,000,000 ordinary shares in the IPO raised $7 million, ensuring a strong financial position and adequate funding for exploration.

Geologist David Boyd was appointed Exploration Manager. David is a first class honours graduate from the University of Western Australia whose 17 year career includes senior positions with Consolidated Minerals, Barrick, Placer Dome and RGC/Goldfields.

CASH POSITION

As at 31 December 2011, the Company had cash reserves of approximately $6.4 million.

Bruce McQuitty
Managing Director
31 January 2011

COMPETENT PERSONS' STATEMENT

The information in this announcement that relates to exploration results is based on information compiled by Bruce McQuitty. Mr McQuitty is a full time employee of the Company. Mr McQuitty is a Member of the Australasian Institute of Geoscientists and has sufficient experience which is relevant to the style of mineralisation and type of deposit under consideration and the activity to which they are undertaking to qualify as Competent Person as defined in the 2004 Edition of the 'Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves ("JORC Code")'. Mr McQuitty 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 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 "seek", "expected", "target", "scheduled", "intends", "potential", "prospective" and similar expressions.

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