

## QUARTERLY ACTIVITIES REPORT

31 JULY 2008

### Highlights

- Barrambie (vanadium) – Revised Mineral Resource estimate increases resource by 50 % and confirms Barrambie as an **exceptionally high-grade deposit with 0.82 % V<sub>2</sub>O<sub>5</sub>** (using a 0.5 % V<sub>2</sub>O<sub>5</sub> block cut-off grade). This is the highest resource grade of any of the major vanadiferous magnetite deposits in Australia. DFS due for completion by 15 August 2008.
- Comet Vale (gold) – **Record ore production**, quarter totaled 7,556 tonnes at an estimated grade of 12.1 g/t Au, including 5,672 tonnes of high grade ore at an estimated grade of 13.8 g/t Au.
- Comet Vale (gold) – Latest milling campaign contributes 700 ounces at cash costs (C1) of A\$398/oz, generating margin of A\$566/oz.
- Mt Finnerty (iron) – RC drilling results from FIN10 include 12 @ 62.6%, 11 @ 61.4% and 10 @ 60.4 % Fe. RAB program for secondary iron to commence this quarter.
- Mt Finnerty (nickel) – Geochemical and geophysical anomalies to be tested by RC drilling in August. RAB program to commence this quarter.

Reed Resources' exploration and development activities during the quarter have continued to focus on advancing the Barrambie vanadium project and the Comet Vale gold operations. Portman Iron Ore Ltd and Western Areas NL are continuing with exploration of the Mt Finnerty project for iron ore and nickel sulphide mineralisation, respectively, under joint venture agreements. The Bell Rock Range project in central Australia is progressing steadily.

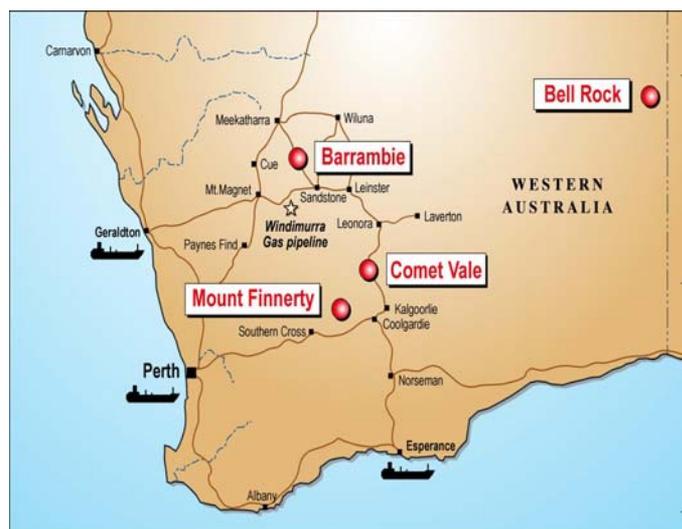


Figure 1 Location of Reed Resources' main projects in Western Australia.



## **BARRAMBIE VANADIUM PROJECT (Reed 100%)**

### **DEFINITIVE FEASIBILITY STUDY**

The Barrambie Definitive Feasibility Study (DFS) continued as scheduled during the quarter, with completion of a Mineral Resource estimation and steady progress in the areas of reserve calculation and open pit optimisation as well as metallurgical test work, process optimisation, plant and infrastructure design, capital cost estimation and environmental approvals.

### **Beneficiation Test work**

Process flow sheets have been finalised with a relatively high level of confidence based on laboratory scale and pilot plant metallurgical test work performed at a number of laboratories throughout Perth and overseas, all under the supervision and direction of Sinclair Knight Merz ("SKM").

Trends identified from the metallurgical variability test work have assisted in predicting the optimal treatment routes and recoveries for the resource. This test work has resulted in a conservatively designed beneficiation plant that will enable a high level of metallurgical flexibility in the operation of the plant, particularly during start up and in the early years of the operation when the majority of the ore feed is expected to come from the Central oxide ore zone.

An on going "optimisation" test work program has been initiated and is expected to continue for up to six months. Early results from this work indicate that significantly increased recoveries and reduced throughput rates are achievable by inclusion of both reverse flotation and SLo magnetic separation machines to reject the gangue and improve the concentrate grade.

The Company's aim is to establish Barrambie as the world's most technologically advanced vanadium mine and processing plant, thereby maximising the sustainable competitive advantages generated by being the highest grade resource in Australia.

### **Roast Pilot Plant Test Work**

Results from the pilot roast test work performed in Germany earlier this year indicate that satisfactory levels of vanadium recovery of approximately 90% could be achieved by roasting Central zone concentrate in the presence of sodium carbonate at a temperature of 1200 degrees centigrade.

The calcined product from the pilot roast tests was returned to Australia for on-going test work, which has include a program to manufacture vanadium pentoxide flake from the calcined product at SGS's laboratories at Malaga. This work has indicated that the calcined product lends itself readily to leaching, filtration and thickening and the Company is pleased to advise that it has successfully produced ammonium metavanadate (AMV), which is a key step in the production of vanadium pentoxide, and tested the de-ammoniation process. Work is currently focussed on the process of producing vanadium pentoxide flake. .

## Plant Design

The process flow sheet and plant design, a major component of the Definitive Feasibility Study, was completed by SKM during the quarter. Detailed capital cost estimates for the construction of the plant and infrastructure are well advanced and are targeted for completion during the September quarter. In addition, negotiations and discussions with reagent suppliers were held during the quarter enabling the estimation of detailed operating costs to be completed.

## Extension of DFS to Produce Ferrovandium

A decision was made during the quarter to extend the plant design to incorporate the production of ferrovandium. Process flow sheets and capital cost estimates are being prepared to achieve that objective. The conversion of vanadium pentoxide ( $V_2O_5$ ) (9000 tpa) to ferrovandium ( $FeV_{80}$ ) (6,300 tpa) as the final product will add significant value to the product stream as ferrovandium achieves a significant price premium over vanadium pentoxide. The economics of the project should be further enhanced by producing ferrovandium from vanadium trioxide ( $V_2O_3$ ) rather than from vanadium pentoxide ( $V_2O_5$ ).

## Environmental and Water Studies

The environmental approvals program is progressing with an Amended Environmental Referral and Scoping document lodged with the EPA during the quarter. The EPA have advised that a Public Environmental Review (PER) will be required to address the various environmental issues associated with the project. Meetings were continuing during the quarter with various stakeholders including the local Shires, traditional owners, local landholders, the EPA, DOW and the DOIR.

Mathematical modelling of the water resource has indicated that there is sufficient water for the proposed operation for a period 12 years, with only minimum draw down.

## Mineral Resource Estimate

Snowden Mining Industry Consultants (Snowden) completed an updated Mineral Resource estimate for the Barrambie deposit, with inclusion of assay and density results from the latest phase of drilling and updated geological interpretations.

The total **Indicated and Inferred Mineral Resource** is estimated at **36.3 Mt at 0.82%  $V_2O_5$** , 17.7%  $TiO_2$  and 49.2%  $Fe_2O_3$  at a cut-off grade of 0.5 %  $V_2O_5$ , as advised on 7th May 2008. This is a significant increase in the tonnage estimated for the Barrambie mineralisation compared with the previous resource. The 0.5 %  $V_2O_5$  cut-off grade best represents the higher grade massive magnetite bands that will be the target for selective mining of the deposit. The estimated Resource grade of 0.82 %  $V_2O_5$  is consistent with the company's aim of achieving as higher head grade as possible to feed the processing plant.

The Mineral Resource has been estimated for that section of the deposit between 7535 mN and 12600 mN (local grid), over a strike length of 5 km. This is equivalent to about 40% of the interpreted total strike length of vanadiferous-titaniferous magnetite mineralisation within Mining Lease M57/173.

## **Mine Design and Production Scheduling**

Based on the above resource estimate and recovery characteristics from the metallurgical variability test work, Snowden have carried out Whittle Optimization of the resource and have designed an open pit that recovers mainly oxidized mineralization from the Central and Eastern mineralized zones. This open cut extends from approximately 8000mN to 12000mN and is approximately 4 kilometres long, 300 to 400 metres wide and 60 metres deep.

A production schedule has been developed for the mine to deliver 3.2 million tonnes per annum.

## **Project Management**

Sinclair Knight Merz have continued with the metallurgical test work program examining the variability of the ore and have completed the flow sheet and engineering design to allow the estimation of capital and operating costs for Phase 2 of the Definitive Feasibility Study. The final report is on schedule to be delivered prior to 15 August 2008.

## **OPTIMISATION STUDY**

During the quarter the Company commenced a separate Optimisation Study running in parallel with the DFS. This decision was based on testwork results that indicate significantly increased concentrate grades, mass and total recoveries can be achieved by selective mining based on metallurgical characterisation and inclusion of a fines recovery circuit.

## **Northern Strike Extension and Infill Drilling**

A 25,000 metre reverse circulation drilling program commenced at Barrambie on the 20<sup>th</sup> May 2008 with the objective of extending the resource for a further 6 kilometres from 12000 mN to 18000 mN. Assay results from this drilling program are expected to be available during the September quarter. The additional drilling is expected to contribute to a substantial increase in Mineral Resources.

A second phase of diamond drilling commenced in July 2008. The diamond drilling program is taking place throughout the deposit to provide additional geotechnical data for pit wall design and additional metallurgical samples.

## **Forward Work**

The following activities are planned for the next quarter:

- Continue beneficiation and roasting testwork on core samples from Northern sections (Bight and Straight) of Barrambie deposit.
- Continue testing the effectiveness of SLon magnetic separators and reverse floatation for recovery of fines in the beneficiation of the Barrambie mineralisation.
- Compile drilling results for geological interpretation and commence a revised Mineral Resource Estimate.
- Modify the DFS process flow sheet and process plant to produce increased levels of ferrovanadium and to produce from vanadium trioxide ( $V_2O_3$ ), rather than from vanadium pentoxide ( $V_2O_5$ ).

## **Market Price**

The current price of vanadium is quoted by the Ryans Notes at US\$15.50/lb for  $V_2O_5$  and US\$70 per kg of V for ferrovanadium ( $FeV_{80}$ ), as at 28 July 2008. The primary use for vanadium is to harden steel.

## **COMET VALE PROJECT (gold, nickel)**

### **Sand Queen Mine operations (Reed Resources 100 %, Kingsrose Mining earning 50 %)**

#### **Mining**

Mining operations at Comet Vale continue to improve, with Kingsrose reporting record ore production of 7,556 tonnes at an estimated grade of 12.1 g/t Au achieved from underground during the June quarter. This included 5,672 tonnes of high grade ore at an estimated grade of 13.8 g/t Au and a further 1,884 tonnes of low grade ore grading 4.6 g/t Au.

During the quarter, four additional underground miners arrived from the Philippines bringing the total overseas complement to eight. Additional miners are currently being assessed at an underground gold mine in the Philippines before being mobilized to Australia. Kingsrose also acquired an underground bazooka diamond drill rig, which will be used to test for parallel mineralized structures in the wall rocks adjacent to the main Comet Vale lodes.

Mining during the September 2008 quarter will focus on the stopes being developed above the 3 level and preparations are in hand to dewater to and development of the 4 Level.

Kingsrose have also reported that during the June 2008 quarter, 4,411 tonnes of stope ore at an estimated grade of 13.8 g/t Au and 970 tonnes of low grade order at an estimated grade 4.6 g/t Au was stockpiled pending the next batch of toll treatment.

#### **Milling**

An ore parcel of some 5,731 tonnes (dry) was toll treated in May, 2008 at Higginsville Mining's Greenfields plant at Coolgardie. This parcel consisted of some 3,821 tonnes of stope ore grading 12.3 g/t Au and 1,375 tonnes of low grade ore at 3.3 g/t Au, which was followed by 535 tonnes of flush material for an overall bullion reconciled feed grade of 9.0 g/t Au.

A total of 1,466 ounces of gold and 143 ounces of silver were recovered of which 700 ounces of gold has been credited to Reed. The gravity circuit recovered about 54% of the gold with a total gold recovery of 97.5% calculated from the metallurgical balance.

Reed Resources cash costs of production (C1) are estimated at A\$398/oz generating a margin of A\$566/oz on the 700 ounces sold at spot rate of A\$964/oz. Gold production is not hedged and therefore fully leveraged to further upward movements in the price of gold.

The next milling campaign is scheduled for July 2008 and was complete as of the date of this report.

### **Comet Vale Gold Exploration (Reed Resources 100 %)**

During the quarter work focused on planning for a major drilling program scheduled to commence in August. This program, of approximately 3700 metres of diamond drilling, 4300 metres of RC drilling, 2200 metres of AC/RAB drilling and 150 auger holes, is designed to increase underground resources at the Sand Queen mine and to test a number of geochemical and structural targets throughout the Comet Vale area.

### **Nickel Laterite (Heron earning 70%)**

As part of a nickel laterite farm-in agreement with Heron Resources Ltd on M29/185 and M29/186, six RC drill holes (CVRC0001-CVRC0006) were completed for 368 metres of drilling. This drilling program has confirmed the presence of two horizons of nickel enrichment (Table 1), which had been indicated in previous drilling by Reed in the adjoining Mining Leases. No sample have been submitted for upgrade testing.

**Table 1:** Significant intercepts\* in RC drill holes within M29/186 (CVRC0001-5) and M29/185 (CVRC0006), as provided by Heron Resources Limited.

Hole ID	North	East	mFrom	mTo	Width	Ni%	Co%
CVRC0001	6682880	320800	2	12	10	0.77	0.03
			18	22	4	0.63	0.04
CVRC0002	6682880	320720	2	46	44	0.51	0.02
			40	44	4	0.57	0.01
CVRC0003	6682880	320640	8	14	6	0.65	0.04
			32	38	6	0.45	0.02
CVRC0004	6684950	320250	4	26	22	0.84	0.03
			44	48	4	0.52	0.02
CVRC0005	6684950	320200	2	26	22	0.58	0.03
	includes		4	10	6	0.87	0.06
			14	18	4	0.62	0.02
			24	26	2	0.64	0.01
			50	52	2	0.64	0.01
CVRC0006	6684870	320000	14	58	44	0.47	0.02
	includes		16	24	8	0.7	0.03
			36	38	2	0.51	0.01

\* Significant intercepts are for intersections greater than 0.5 % Ni, at a 0.4 % Ni lower cut and a minimum 2 metre intersection width.

Co-ordinates are in GDA94-51. Samples were analysed by Ultratrace using a four acid digest and XRF. All holes were drilled vertically.

Heron have reported that the aim of the drilling program has been achieved, and the next phase of exploration should be a drill out to determine the size of the resource.

Reed is currently undertaking preliminary test work at the Western Australian School of Mines (WASM) to assess the viability of heap leaching of lateritic nickel from Comet Vale. This test work, using RC drill samples from Reed's earlier drilling program (on 100% Reed tenements), is planned to:

- Determine whether fractions of the nickeliferous laterite can be upgraded by screening.
- Investigate various techniques for agglomeration for nickel heap leaching.
- Assess leaching performance of column leach tests of agglomerated material.

## Exploration Forecast

Gold exploration planned for the September quarter is scheduled to include a program of deep diamond drilling below the existing Sand George resource, infill and down dip drilling within the Sand Prince area along strike from Sand George, drill testing of near-mine structural targets, and first pass auger/AC/RAB drilling of co-incident geochemical and structural anomalies.

## MOUNT FINNERTY PROJECT (iron, nickel, gold)

### Iron ore exploration (Reed Resources 20 %, Portman 80 %)

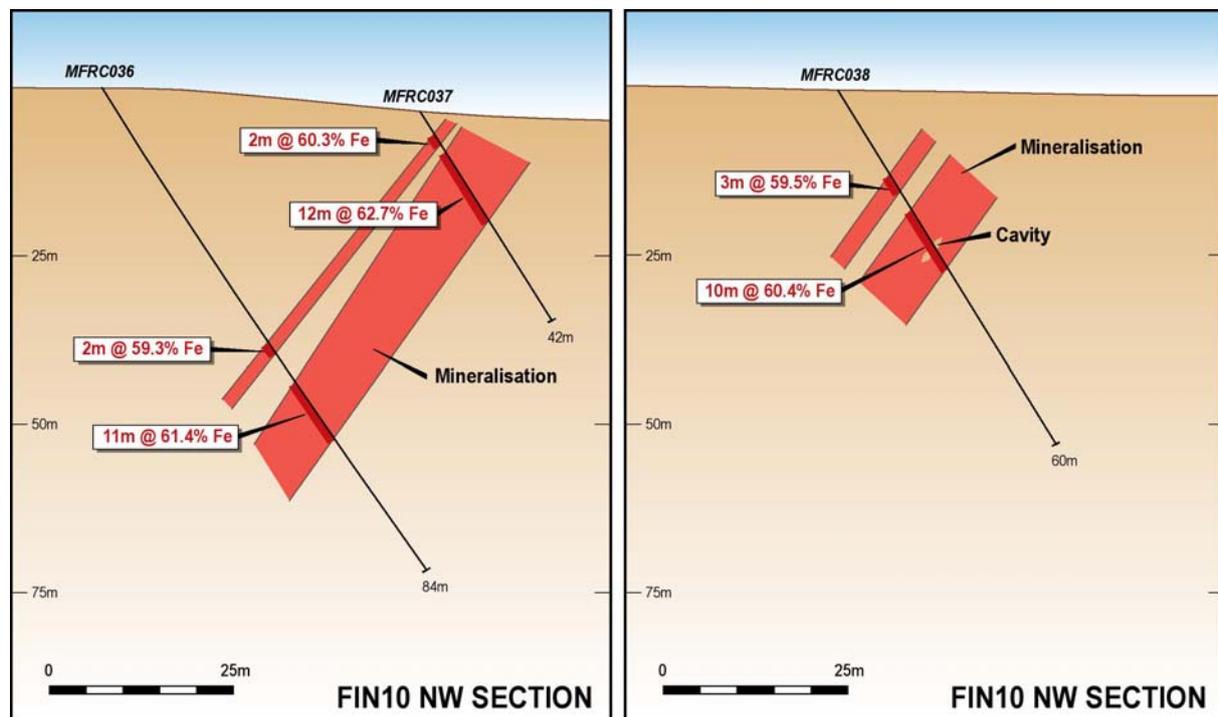
Portman have earned 80% of the iron rights in the Mt Finnerty project, which lies 65km east of their Koolyanobbing Iron Ore Mine.

During the quarter, Portman conducted semi-regional reconnaissance mapping across the corridor between the FIN9 and FIN10 prospects and in the northernmost JV tenements. Planning is in progress for additional RC drilling based on aeromagnetic data, reconnaissance mapping and previous drilling.

Analytical results were received from an RC drilling program at the Fin10 and FIN11 prospects. The best drill results were obtained from the FIN10 prospect, with the following significant intercepts of iron enrichment (at least 5 metres of >58 % Fe by weight), as reported by Portman:

Hole ID	From (m)	To (m)	Intercept (m)	Fe %	SiO <sub>2</sub> %	Al <sub>2</sub> O <sub>3</sub> %	P %	LOI %
MFRC036	50	61	11	61.4	4.44	1.87	0.059	5.44
MFRC037	13	25	12	62.6	2.09	2.26	0.060	5.60
MFRC038	20	30	10	60.4	3.63	2.98	0.061	6.64

These intercepts are illustrated in the interpreted sections in Figure 2, below,



**Figure 2** Interpreted sections through a northern drill traverse (left) and southern drill traverse (right) at FIN10. The two traverses are approximately 90 metres, as detailed in the March quarterly report.

Beneficiation test work is continuing on composite samples from the Jaurdi secondary-enriched palaeochannel.

## **Nickel exploration (Western Areas NL earning 65 %)**

Exploration by Western Areas during the quarter continued with completion of logging and sampling of the 2007 RAB drilling program. Selected chips were retained for lithological identification and a total of 1,007 samples from selected drill holes submitted for chemical assay to complete the geological and check sampling.

Niton portable XRF results from 3,933 RAB samples have been compiled and calibrated and checked against some 1,007 conventional assay samples, with good correlation of nickel values between the two methods.

The best nickel assays from the RAB drilling program are from holes MFR064 and MFR065 (results reported in the March Quarterly activities report). The anomalous intervals are confined to weathered clay zones and have confirmed the NITON Ni results with no significant Cu values and weakly anomalous PGE's and minor Au. Follow-up RC drilling is planned to test this target at depth.

Four lines of follow-up IP survey was undertaken to test for the presence of possible low level sulphides, as indicated on the attached plan. No significant IP responses were defined over the target zones but two moderate IP anomalies were located on the western edge of the greenstone belt on or near its contact with adjacent granite. The source of these responses is not known at this time.

## **Gold and other minerals exploration (Reed 100 %)**

A drilling program has been planned to test the potential for primary gold mineralisation at the Flinders and Tasman prospects and to provide confirmation for evaluation of Resource models for the Flinders and Tasman deposits.

Results from bottom-hole sampling of Portman's RAB were received but no significant gold anomalies were detected, although a number of holes returned high arsenic values.

During the quarter, exploration also included reconnaissance mapping and sampling of historic workings of manganese (as psilomelane) mineralisation on the south flank of Mt Watt. Another reported occurrence of pyrolusite, approximately 1.2 km north-northwest of the historic workings has yet to be confirmed. Geological mapping is required to better determine the extent of the two manganese occurrences, prior to any drilling to test the depth potential beneath scree.

## **Exploration Forecast**

Iron exploration (PMM) planned for the September quarter is scheduled to include:

- An extensive RAB drilling program aimed at confirming the presence of secondary iron enrichment within broad palaeochannel systems as interpreted from aeromagnetic data and satellite imagery and reconnaissance drilling.
- Further beneficiation test work to produce concentrates from secondary iron deposits.
- A botanical survey for an RC drilling program that is planned to test strike and down dip extensions at the FIN10 and FIN9 prospects to achieve a Mineral Resource classification. This drilling will commence once environmental approvals are received.

Nickel exploration (WSA) is scheduled to include follow-up drilling of the IP anomalies and extension of the soil and MagLag sampling in areas of suitably shallow cover on the western and central ultramafic units. A second round of RAB drilling to test the sand covered areas has been planned and is now awaiting the appropriate approvals.

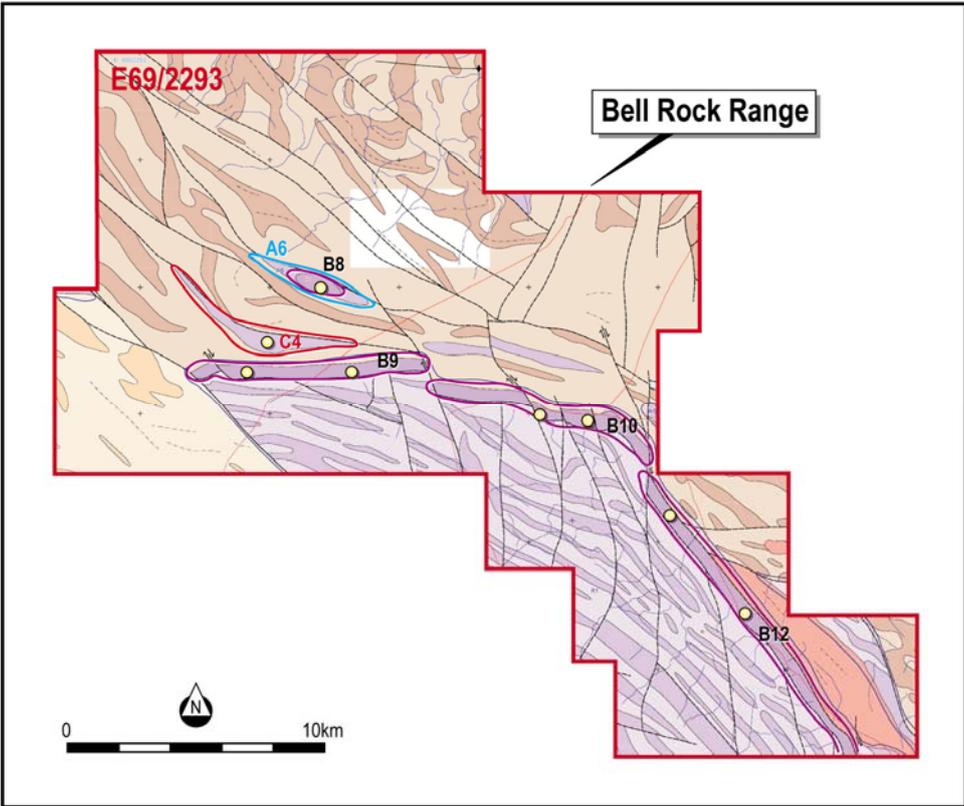
Gold exploration is planned to include diamond drilling at the Flinders and Tasman prospects to test potential for primary mineralisation at depth and shallow AC drilling at Flinders and Tasman. This will also allow completion of resource models for Flinders and Tasman.

Work during the next quarter is also scheduled to include additional geological mapping and sampling of the manganese prospects, and possible follow-up drill testing.

**BELL ROCK RANGE PROJECT  
(Reed 100%)**

The Bell Rock Range project is within the western part of the Proterozoic Musgrave Province in central Australia. It is highly prospective for several commodities, particularly Ni-Cu sulphide and PGE mineralisation.

The company is currently negotiating agreements for access within the exploration licence. Once this is finalised, initial exploration is scheduled to include ground reconnaissance geological mapping and sampling and airborne geophysical surveys.



**Figure 4** Principal Ni-Cu sulphide exploration target areas within the Bell Rock Range project (E69/2293). The B9-B10-B11 target zone is the interpreted basal unit of an ultramafic-mafic complex (purple colours).

## CORPORATE

During the quarter the Company raised A\$12.00 Million via a placement of 13.33 Million shares at A\$0.90 per share to a syndicate led by Nicholas Curtis. The syndicate will look to assist Reed in the advancement of the Barrambie project including investigating a number of strategies related to the financing and further development of the project. The placement was arranged by Transocean Securities Pty Ltd and Paterson Securities Ltd.

At the end of the quarter the Company had \$19.89 million cash at bank.



C J Reed  
**MANAGING DIRECTOR**

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*Geological aspects of this report that relate to Exploration Results have been compiled by Dr Peter Collins (MAIG), a Director of Reed Resources Ltd. Dr Collins has sufficient experience relevant to the style of mineralisation and type of deposit under consideration and to the activity which is being reported on to qualify as a Competent Person as defined in the Code for Reporting of Mineral Resources and Ore Reserves. Dr Collins consents to the inclusion in the report of the matters in the form and context in which it appears.*

*Although Reed Resources remain optimistic about the potential of its exploration projects, any reference to the terms "ore", "high-grade" and "low-grade" in this report is conceptual in nature. Use of the term "grade(s)" is not intended to represent the grade of a resource.*