

17 April 2014

Mr Sebastian Bednarczyk
Adviser, Issuers (Perth)
ASX Limited
Level 8, Exchange Plaza
2 The Esplanade
Perth WA 6000

Dear Sebastian,

**LODGEMENT OF MARCH 2014 QUARTERLY REPORT, QUARTERLY UPDATE PRESENTATION
INVESTOR CONFERENCE CALL AND WEBCAST**

I am pleased to attach the following items for immediate release to the market:

1. March 2014 Quarterly Activities Report
2. March 2014 Quarterly Update Powerpoint Presentation
3. March 2014 Mineral Resource Announcement

In addition, Sandfire's Managing Director and CEO, Karl Simich, is hosting an investor teleconference and live webcast on the March 2014 Quarterly Report at 9.00am (AWST) / 11.00am (AEST) today. Details of the call are provided in the March 2014 Quarterly Activities Report.

The webcast and synchronised slide presentation is available through the Company's website or through BRR Media.

Access this webcast at: <http://www.brrmedia.com/event/122782>
<http://www.sandfire.com.au>

Yours sincerely,

Matt Fitzgerald
Chief Financial Officer
and Joint Company Secretary

For further information contact:
Sandfire Resources NL
Karl Simich – Managing Director/CEO
Office: +61 8 6430 3800

Read Corporate
Mobile: +61 419 929 046 (Nicholas Read)
Mobile: +61 421 619 084 (Paul Armstrong)





Underground tag board, DeGrussa

ASX Code:

SFR

Issued Capital:

Ordinary Shares 155.6M
Options 8.1M

Major Shareholders:

OZ Minerals 19.2%
POSCO 15.3%

Directors:

Derek La Ferla
Non-Executive Chairman

Karl M. Simich
Managing Director and
Chief Executive Officer

Paul Hallam
Non-Executive Director

W. John Evans
Non-Executive Director

Soocheol Shin
Non-Executive Director

Robert Scott
Non-Executive Director

Management:

Michael Spreadborough
Chief Operating Officer

Matthew Fitzgerald
Chief Financial Officer and
Joint Company Secretary

Robert Klug
Chief Commercial Officer and
Joint Company Secretary

Date:

17 April 2014



SANDFIRE RESOURCES NL

QUARTERLY REPORT

For the period ended 31 March 2014

HIGHLIGHTS

Production & Operations

Contained metal production	Sep 2013 Quarter	Dec 2013 Quarter	Mar 2014 Quarter	FY2014 To Date
COPPER				
Concentrator (t)	16,446	15,492	18,098	50,036
GOLD				
Concentrator (oz)	8,613	5,957	10,035	24,605

- Record 18,098t copper and 10,035oz gold produced at a C1 cash operating cost of US\$1.08/lb.
- Underground mining rate of 1.5Mtpa maintained with four large stopes commencing in March-April and development of C1 and C4/5 declines progressing on schedule.
- Average copper recovery of 91% achieved with optimisation programs underway to further boost recoveries and reduce operating costs.
- 50,036t of copper and 24,605oz of gold produced for FY2014 to date: June 2014 Quarter results expected to be in-line with March Quarter.

Exploration

- Resource definition of eastern portion of Conductor 4 underway with drilling targeting Conductor 5 extensions and newly identified off-hole conductors down-plunge of Conductor 1 to commence in 2H CY2014.
- Technical programs progressing to refine target generation and prepare for drilling at Springfield (Talisman JV) and undertake metallurgical drilling and test work at Thaduna Copper Project (Ventnor JV).

Corporate

- Financing completion test satisfied as part of the original \$380M DeGrussa Project Finance Facility. Facility balance reduced to \$190M at 31 March 2014 with scheduled \$40M repayment.
- 37% interest acquired in TSX-V listed company WCB Resources Ltd through a A\$5.9M private share placement in April 2014, enabling Sandfire to participate in a potentially world-class porphyry copper-gold opportunity on Misima Island.

March 2014 Quarterly Report Presentation to be webcast live at 9.00am (WST) / 11.00am (AEST) today, 17 April 2014, with a simultaneous investor conference call (details inside).



Sandfire Resources NL ABN 55 105 154 185
Level 1, 31 Ventnor Ave, West Perth Western Australia 6005
Phone: +61 8 6430 3800 Fax: +61 8 6430 3849
Email: info@sandfire.com.au Web: www.sandfire.com.au

1.0 OPERATIONS OVERVIEW

Copper production for the March Quarter increased to a record 18,098 tonnes (December Quarter: 15,492 tonnes) which was in line with guidance, reflecting the strong average ore grade of 5.3% Cu for the Quarter (December Quarter: 5.1% Cu). C1 cash operating costs for the Quarter fell to US\$1.08/lb (December Quarter: US\$1.29/lb), as a result of the increased production.

50,036 tonnes of copper and 24,605 ounces of gold have been produced for FY2014-to-date, with ore grade and production for the June Quarter expected to be broadly in-line with the March Quarter.

Mill throughput is on target for an annualised rate of 1.5Mtpa (million tonnes per annum) with 379,018 tonnes milled for the March Quarter. Average copper recovery was maintained at 91% in the March Quarter with further improvements expected over time with ongoing plant reliability initiatives. Several technical optimisation programs are underway to increase throughput, further boost copper and gold recoveries and reduce unit operating costs.

Underground mining progressed on schedule with four stopes now in various stages of development and production. The underground mine maintained the targeted ore production rate of 1.5Mtpa (125,000 tonnes per month) with a total of 381,439 tonnes of underground sulphide ore mined for the Quarter. The performance of the paste plant has also stabilised with above-target performance achieved under gravity flow conditions.

Sandfire maintained a strong focus on underground development, with the Conductor 1 and Conductor 4/5 Declines well advanced from the junction off the Evans Decline and total underground development reaching over 19km at Quarter-end.



Figure 1 – Underground diamond drilling in progress (left) and Sandfire geologists checking drill samples in the field (right)

1.1 Safety

The Total Recordable Injury Frequency Rate (TRIFR) YTD continued to show a steady decline to 13.0 at the end of the March Quarter, compared with 13.5 at the end of the December Quarter. The TRIFR for the Quarter was 12.2.

Recordable injuries include those injuries that result in any days away from work (Lost Time Injuries) and injuries where an employee or contractor cannot perform all or any part of their normal shift (Restricted Work Day Injuries) and any injury that requires services that only a medical practitioner can provide (Medical Treatment Injuries).

In response to an increase in injuries associated with lacerations, strains and sprains, additional focus has been placed on the prevention of these types of injuries. The refinement of safety systems including development of standards for major hazards continues and is working towards reducing the overall risk profile of the Company's operations.

2.0 MINING & PRODUCTION

2.1 Overview

March 2014 Quarter – Production Statistics		Tonnes	Grade (% Cu)	Grade (g/t Au)	Contained Copper (t)	Contained Gold (oz)
Concentrator	Mined	381,439	4.9	1.5	18,662	18,534
	Milled	379,018	5.3	1.6	19,962	19,126
Production		74,213	24.4	4.2	18,098	10,035
Copper and gold sales		85,369	24.4	4.0	20,867	10,842

Note: Mining and production statistics are rounded to the nearest 0.1% Cu grade and 0.1 g/t Au grade. Errors may occur due to rounding. Production Statistics are subject to change following reconciliation and finalisation subsequent to the end of the Quarter.

2.2 Underground Mining

Underground mining progressed on schedule with four stopes on-line during the Quarter. The targeted annualised underground ore production rate of 1.5Mtpa (125,000 tonnes per month) was maintained with a total of 381,439 tonnes of underground sulphide ore mined for the Quarter.

The performance of the paste-fill plant has continued to improve with paste delivery rates exceeding scheduled rates during the Quarter. While the majority of the fill delivery has been completed through gravity feed, filling of the upper level stopes through the use of a pump continued during January without issue.

The first stope to be mined beneath a filled stope was completed during the Quarter. Full extraction was achieved without paste dilution from the stope above.

As noted in the December 2013 Quarterly Report, all paste-filling for the next couple of years will be completed by gravity filling except for planned campaigns of paste filling using the paste pump in the September Quarter. This will reduce reliance on pump reliability.

The Conductor 1 Decline advanced during the Quarter, enabling the commencement of additional ventilation rises as well as down-dip drilling within the Conductor 1 deposit. The development of this decline will enable the large Conductor 1 deposit to be fully developed and extracted.

The Conductor 4/5 development advanced following a redesign during the Quarter driven by a temporary deterioration of ground conditions and increased water ingress experienced last Quarter. A detailed geotechnical review and drilling program was undertaken to keep the decline within the siltstone and dolerite rock units. To date, all decline development at DeGrussa has been undertaken within these rock units and has experienced good ground conditions.

The new decline path has been designed to minimise interference with the Conductor 4 underground diamond drilling program (see below) and will have no material impact on previously announced development timelines and budgeted capital expenditure for the underground mine development.

This Decline is expected to reach Conductor 4, located approximately 400m east of Conductor 1, towards the end of the year and will enable development and mining of both the high-grade Conductor 4 and 5 deposits to occur.

The development of these new declines is important as it will ensure that DeGrussa can source ore from multiple underground locations, providing stability and consistency of production in the long term. It is also facilitating the establishment of underground diamond drilling platforms from which extensions and potential repeats of the Conductor 4 and 5 deposits can be targeted.

These drill positions will also be used to allow early grade control drilling to define mining shapes in Conductor 4 and 5 and to conduct in-fill drilling to enable conversion of Inferred Mineral Resources to Ore Reserves in these deposits. Recent underground grade control drilling has brought the majority of the Conductor 1 deposit, down to the 2150mRL, to a 'mine-ready' status with further drilling required below this level.

Grade control drilling continued during the Quarter to target the Conductor 4 deposit from the new 2200DDD drill drive. Exploration drilling targeting extensions of the Conductor 4 deposit commenced in mid-April (see below).

Total development for the underground mine to date is over 19km.

2.3 Processing

The DeGrussa Concentrator has been stabilised at an annualised throughput of 1.5Mtpa, with key metrics for the March Quarter including:

- 379,018 tonnes milled at an average head feed grade of 5.3% Cu (December Quarter: 338,140 tonnes at 5.1% Cu), with the plant on target for an annualised throughput rate of 1.5Mtpa;
- overall copper recovery of 91% (December Quarter: 90%);
- concentrate production of 74,213 tonnes (December Quarter: 62,159 tonnes); and
- metal production of 18,098 tonnes of contained copper and 10,035 ounces of contained gold (December Quarter: 15,492 tonnes of contained copper and 5,957 ounces of contained gold).

Following some minor outages in January, milling performance improved from February onwards and has been stabilised at 1.5Mtpa with changes to the operating strategy, including:

- Managing the ore blend to reduce variability;
- Optimisation of the steel charge into the SAG mill;
- The commissioning of a partial by-pass of the SAG mill cyclone slurry discharge direct to the ball mill; and
- The ejection of critical size material.

Milling throughput is influenced by a higher than expected amount of critical size material, and recent modelling has shown that the installation of a pebble crusher results in improved grind management, reduced operational variability, reduced operating costs and increased milling capacity.

The Company plans to make a final decision on this enhancement during the June Quarter. SAG mill utilisation will also be improved by optimisation of the grate design and a planned upgrade to the CV01 magnet.

Other recovery optimisation initiatives currently underway include:

- Applying a coarser grind size – resulting in a potential change in SAG mill classification;
- Optimisation of the flotation flow sheet;
- Installation of a column flotation cell (trials underway); and
- Ongoing reagent optimisation trials.

3.0 SALES AND MARKETING

3.1 Copper Concentrate Shipments

A total of 85,369 tonnes of plant concentrate grading 24.4% Cu containing 20,867 tonnes of copper was sold for the Quarter. Gold sales totalled 10,842 ounces for the Quarter. Shipments were completed from Port Hedland and Geraldton.

The final shipment of production from the December 2013 Quarter was completed in January 2014, which assisted March Quarter sales levels.

4.0 FEASIBILITY STUDIES & METALLURGY

4.1 Oxide copper

The Sandfire Oxide Copper Project at DeGrussa has been extensively tested and the project is being evaluated on the following basis:

- Existing stockpiled oxide material will be scrubbed to remove fine clays;
- The -150um material will be deposited in a purpose-built additional tailings storage facility and the +150um material will be all in crushed to -24mm for heap leaching;
- The heap leach will be a combination of a traditional sulphuric acid leach coupled with bio-leaching; and
- The pregnant liquor from the heap leach will be concentrated in a solvent extraction circuit with the strong electrolyte fed to an electrowinning circuit to produce 99.99-99.999% copper cathode.

The project is now focused on optimising the capital and operating cost with the aim of completing a Feasibility Study report late in the December 2014 Quarter.

In December 2013, Sandfire signed a joint venture agreement with Ventnor Resources at the Thaduna/Green Dragon Copper Project (see Section 5.3.2 below). Ventnor has significant oxide material which has the potential to be processed through the oxide facility being proposed for DeGrussa.

Geological investigation and metallurgical testing will be undertaken as part of the joint venture with Ventnor. Following this, the Oxide Copper Project financial analysis will be updated to reflect the potential oxide material from this joint venture being processed by the Oxide Copper facility.

The Thaduna Project has the potential to increase the copper units to the Oxide Copper Project, increasing the life of the project. Project commitment will await completion of this detailed Ventnor work.

5.0 DEGRUSSA EXPLORATION

5.1 Overview

Sandfire continues to progress a tightly focused, multi-disciplined exploration campaign to test for extensions to the known cluster of VMS deposits at DeGrussa and to unlock the broader potential of the Doolgunna region for additional VMS (volcanogenic massive sulphide) deposits or clusters of deposits.

Key components of the Company's exploration activity at DeGrussa during the March Quarter included:

- Preparation of an updated Mineral Resource for the DeGrussa Project incorporating the results of successful extensional drilling down-plunge of Conductor 4 and net of mining depletion to 31 December 2013. The Ore Reserve inventory and Mine Plan will be updated in the second half of the year;
- Further underground diamond drilling targeting down-dip extensions of Conductor 1;
- Commencement of resource definition drilling of the eastern portion of Conductor 4 from the newly completed 2175 C4 diamond drill drive;
- Completion of a program of co-funded deep diamond drilling to test for extensions of the prospective DeGrussa volcanic horizon near the path of the Gascoyne River;
- Continued evaluation and assessment of the high-resolution surface 3D seismic survey over the Conductor 5 deposit and a follow up extended 2D seismic survey over the same area;
- Continued first-pass regional exploration over a number of exploration targets within the broader Doolgunna tenement holding;
- Commencement of preparatory work and initial evaluation of the geochemical and geophysical datasets from Talisman Mining for the Springfield Project under the newly established joint venture; and
- Project evaluation as part of the recently established joint venture with Ventnor Resources at the Thaduna Copper Project.

The breakdown of metres drilled for the Quarter is shown below:

Drilling	AC/RAB Drilling (m)	RC Drilling (m)	UG Diamond Drilling (m)	Surface Diamond Drilling (m)	Total Drilling (m)
Q1FY2014	36,238	1,002	1,550	0	38,790
Q2FY2014	32,217	7,460	5,745	4,951	53,373
Q3FY2014	32,621	-	430	2,884	35,935

5.2 DeGrussa Near-Mine Extensional Exploration

Geophysical consultants Newexco re-ran down-hole electro-magnetic (DHEM) modelling for several holes which intersected weak mineralisation down-plunge of Conductor 1 (holes DGDD241, DGDD296 and DGDD393). The emphasis of this work was to constrain any geophysical signature from known conductors in the area.

Newexco's work has resulted in the identification of a subtle off-hole conductor in hole DGDD241, with the EM plate located on the footwall of the projected Conductor 1 horizon. This is a promising exploration target, which will be tested by a series of underground diamond drill holes to be completed as underground drilling positions become available in 2H CY2014, subject to grade control and resource definition drilling priorities.

Diamond drill hole DGDD396 was drilled to test a reflector identified in the combined 3D and 2D seismic analysis. The reflector was proven to be the top of fresh rock which was located at 329m down-hole and was the deepest weathering seen to date in the project area. This information will be used in future re-modelling of the seismic dataset.

Resource definition drilling of the eastern portion of Conductor 4 commenced in mid-April following completion of the 2175C4 diamond drill drive. Additional C4 down plunge drilling will be completed from this position. Underground drilling will provide better drill angles and coverage compared to surface drilling, and enable DHEM surveys to provide 100m diameter coverage around individual holes.

Underground diamond drilling targeting potential extensions of Conductor 5 will also be undertaken in 2H CY2014 once underground development delivers new drill positions. Targeted areas are shown in Figure 2 below:

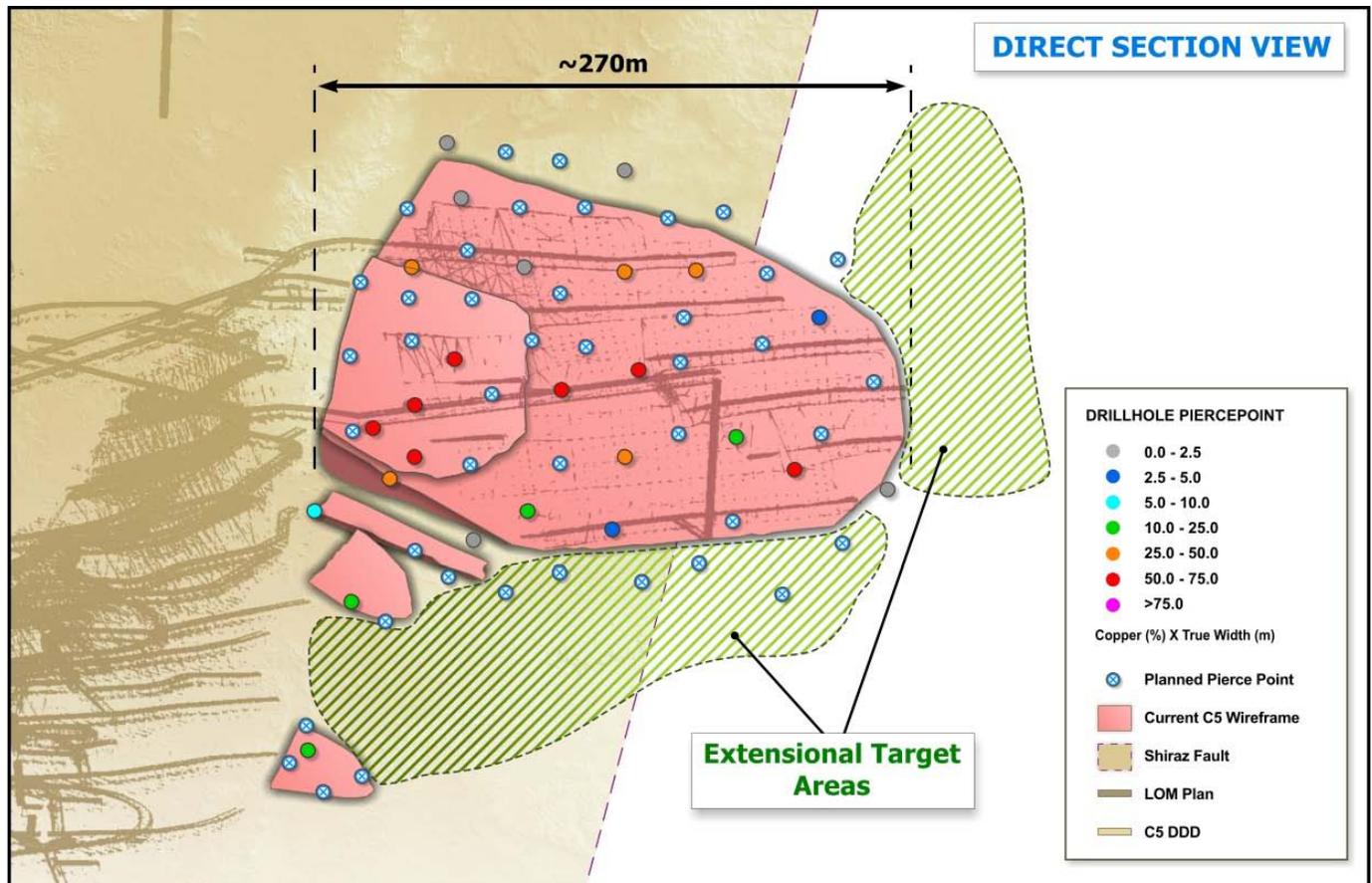


Figure 2 – Conductor 5: planned extensional underground diamond drilling

Near mine exploration, resource definition and grade control work over the last year has been collated and included in the Company’s resource update. As at 31 March 2014, the total Mineral Resource at DeGrussa (in situ and stockpiles) comprised 13.0 million tonnes grading 4.5% Cu and 1.8g/t Au for 588,000 tonnes of contained copper and 764,000oz of contained gold. This includes a Mineral Resource for the DeGrussa underground operations comprised of 10.1 million tonnes grading 5.4% Cu and 2.1g/t Au for 549,000 tonnes of contained copper and 672,000oz of contained gold.

An additional 29,000 tonnes of contained copper and 41,000oz gold has been added to DeGrussa’s underground resource (after mining depletion to the end of March 2014).

*See ASX release “SANDFIRE INCREASES HIGH GRADE MINERAL RESOURCE” 17th April 2014.

5.3 DeGrussa Regional Exploration

The DeGrussa regional land-holding comprises over 400km² of contiguous tenements – many of which have never been explored using a modern understanding of the regolith. In the southern extents of the land-holding little work has been completed while the Company focused on testing potential DeGrussa extensions in the immediate mine corridor.

Together with the Talisman Joint Venture ground (see below), the Greater Doolgunna Project now encompasses 725km² and encompasses an extensive 65km strike length of prospective VMS horizon.

During the Quarter, systematic regional geochemistry aircore drilling continued in the Homestead area. Significant intersections returned from this programme include:

- DGAC4279 5m @ 690ppm Cu
- DGAC4291 5m @ 530ppm Cu, 185ppm Zn
- DGAC4299 5m @ 530ppm Cu, 175ppm Zn
- DGAC4304 5m @ 545ppm Cu
- DGAC4310 10m @ 815ppm Cu, 100ppm Zn
- DGAC4314 10m @ 515ppm Cu, 140ppm Zn
- DGAC4328 5m @ 965ppm Cu, 76ppm Pb, 585ppm Zn
5m @ 540ppm Cu, 167ppm Pb, 300ppm Zn
- DGAC4336 5m @ 705ppm Cu, 165ppm Zn
- DGAC4358 5m @ 595ppm Cu, 155ppm Zn
- DGAC4381 10m @ 545ppm Cu, 245ppm Zn
- DGAC4402 5m @ 610ppm Cu, 105ppm Zn

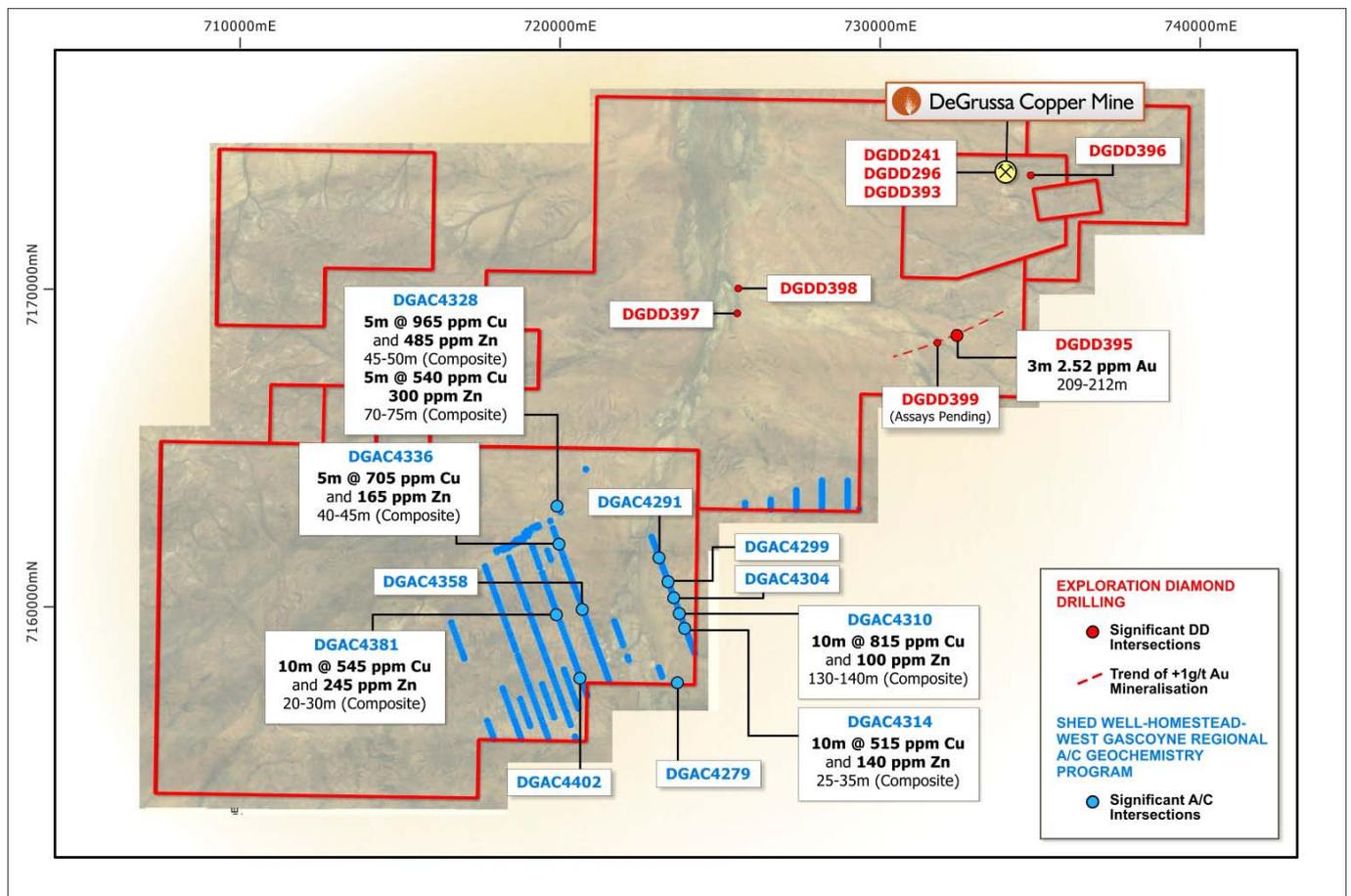


Figure 3 –Drilling completed for the period, showing anomalous intercepts in initial first pass AC drilling at Homestead, and follow up DDH drilling locations.

The holes were designed to provide lithological and stratigraphical information in an area where little drilling has been completed previously. Geology intersected chloritic siltstone, greywacke, dolerite and basalt of the DeGrussa Formation. This suggests that there is more DeGrussa Formation in the Homestead Prospect than initial outcrop mapping thought.

First assay results from the recently completed Cow Hole Bore surface diamond drilling were also received, with a best intercept from the first hole DGDD395 of 3.0m @ 2.52ppm Au (209-212m). The second hole DGDD399 drilled to 396m has assays pending. This program of diamond drilling was targeted at defining the vein orientation and structural setting of the mineralisation. The +1g/t Au anomaly at Cow Hole Bore has now been defined over a strike length of 2,600m. Currently the interpretation of the Cow Hole Bore prospect is that of shear zone located on the contact between dolerite and sediments hosting an auriferous quartz vein stockwork.

Two Western Australian Government co-funded diamond drill holes (DGDD397 and DGDD398) were completed in the period for 1650.8m. No visible mineralization was intersected. The drill holes intersected basalts that are tentatively interpreted as being the Narracoota Formation, conglomerate and interbedded dolomite and siltstone of the Johnson Cairn Formations. The economically significant portion of the DeGrussa sequence was not intersected but may be located between the two drill holes. Additional work is planned for this area. Downhole gyroscopic survey, downhole electromagnetic survey and downhole magnetic susceptibility surveys remain to be completed. Geochemical sampling for stratigraphic correlation and pathfinder detection is planned.

5.3.1 Talisman Joint Venture

The Talisman Projects comprise the Springfield, Halloween and Halloween West Projects, which abut Sandfire's DeGrussa-Doolgunna tenements and contain extensions of the volcanic rock package which hosts the DeGrussa VMS deposits. The projects are being explored under a Joint Venture Farm-in Agreement with Talisman Mining Limited (ASX: TLM) under which Sandfire has the right to earn up to an 70% interest by spending \$15 million on exploration over five-and-a-half years.

Talisman has provided a copy of high-quality datasets for the Springfield, Halloween and Halloween West Projects to Sandfire, and processing and evaluation of the data is now underway including desktop modelling of the extended DeGrussa Mine Corridor. A combined 65km strike length of prospective VMS horizon has now been identified across the combined Talisman and Sandfire tenements, providing a significantly expanded search horizon for new VMS deposits.

Additional assaying is also planned for existing drill samples from the Doolgunna Projects to allow evaluation of the key Principal Component Analysis as identified at DeGrussa to determine key geochemical areas of interest. The full evaluation and integration of Talisman's geophysical datasets (including FLEM, MLEM and gravity survey data) with Sandfire's own data is also underway.

Planning has commenced to determine initial targets for the first drilling programme under the Joint Venture agreement, with first drilling scheduled to commence in the second half of 2014.

5.3.2 Thaduna Project Joint Venture

The Thaduna Project is located 40km east of DeGrussa and represents the largest copper resource in the Doolgunna-Bryah Basin Region outside of Sandfire's DeGrussa-Doolgunna Project (7.9Mt @ 1.8% Cu for 142,000 tonnes of contained copper). Sandfire currently owns a 35% interest in the project, and has entered into a farm-in agreement to earn up to a further 45% (total of 80%) with Ventnor Resources Limited (ASX: VRX).

Sandfire is currently assessing two development opportunities at the Thaduna Project – an oxide project, with ore to be treated through the proposed DeGrussa Copper Oxide Heap Leach; and a sulphide project, with ore to be treated through the existing DeGrussa Flotation Processing Plant.

The first phase of activity at Thaduna will involve a validation of the existing JORC resource (7.9 million tonnes grading 1.8% copper for 142,000 tonnes of contained copper), as well as an update to the structural model and targeting review. Metallurgical drilling and test work is also required to allow discrimination of the oxide and transition zones mineralogy and to then define the correct processing methodology.

6.0 AUSTRALIAN EXPLORATION

6.1 Borroloola Project

The Borroloola Project is located north of the McArthur River Mine (Xstrata), and is prospective for base metals, sedimentary manganese and iron ore. Sandfire has signed two farm-out Joint Venture agreements to advance the Borroloola Project. The Batten Trough JV covering the eastern portion of the tenements is under an option and joint venture agreement with MMG Exploration Pty Ltd, which can earn up to an 80% interest. The Borroloola West JV covering the western portion is under an agreement with Pacifico Minerals Ltd in alliance with Cliffs Natural Resources, which has the right to earn up to an 80% interest.

During the Quarter, Pacifico Minerals reported results from its 13-hole aircore drilling program completed in the Borroloola West JV area during September 2013. Results included:

- Drill holes at EL26939 extended copper mineralisation approximately 800m north of known mineralisation;
- Age determinations on manganese-bearing samples indicate an age of deposition similar to the world-class manganese deposit mined at near-by Groote Eylandt; and
- Geochemical analysis of samples confirm the widespread distribution of anomalous manganese.

Pacifico Minerals has completed the minimum expenditure requirements at the Borroloola West JV and has announced its intention to continue to the next stage of the Joint Venture.

MMG Exploration is planning a field program with diamond drilling commencing during the June Quarter.

6.2 Kennedy Highway Project

The Kennedy Highway Project includes five exploration licences in the Eastern Succession of the Mount Isa Block, south of Cloncurry, Queensland. The tenements are prospective for Broken Hill Type lead-zinc-silver deposits similar to the high grade Cannington mine (BHP) to the north and Iron Oxide Copper-Gold deposits similar to the Ernest Henry Mine (Xstrata). The project includes an option agreement for a Joint Venture on EPM15948 with Global Resources Corporation Ltd, where Sandfire can earn up to an 80 per cent interest by funding exploration.

Sandfire has advised Global Resources that it has withdrawn from the Farm-in Agreement after completing its minimum expenditure on the project. The surrounding 100%-owned tenements have been rationalised.

6.3 Queensland Projects

The Altia Project is located 70km south-east of Cloncurry in north-west Queensland. The project includes an option to Joint Venture into two areas encompassing 43.7 km² with Minotaur Resources Limited (ASX: MEP) to earn up to 80% of the project. The tenements are prospective for Broken Hill style lead-zinc-silver deposits such as the nearby Cannington deposit (BHP) to the south and the Ernest Henry Iron Oxide copper-gold deposits (Xstrata) to the northwest. The Joint Venture area includes the Altia Deposit, where previous exploration has defined the deposit and a number of regional targets.

Field work has commenced in the region on the Altia JV and on recently granted 100%-owned tenements located nearby to plan a drilling program for the upcoming field season. A number of new tenements have been granted and geological, geophysical and geochemical analysis is defining some high quality targets.

Applications are pending on a number of new tenements at the Breena Plains, Kevin Downs, Cannington and Blackrock Projects.

6.4 New South Wales Projects

The Bland Creek Project lies 50km south-east of West Wyalong, in the Lachlan Fold Belt of New South Wales. The tenements are prospective for porphyry copper-gold mineralisation as found at Northparkes (Rio Tinto), Cadia (Newcrest) and Cowal (Barrick). A farm-in agreement to earn up to 80% is held with Straits Resources Ltd (ASX:SRQ) on EL 5792, surrounding tenements and applications are 100% owned by Sandfire.

No significantly anomalous results were reported from the recently completed short aircore program at the Sao Paulo prospect on EL5792. Further planned programs are dependent on landholder access.

Three new 100%-owned tenements at the Wingrunner Project have been granted to the south of Naromine covering a highly prospective portion of the Lachlan Fold Belt with an associated regional gravity low and magnetic high with similarities to the Northparkes intrusive complex. A planned regional aircore program was delayed due to weather and will now be postponed to the December Quarter.

6.5 Alford Project

The Alford Project on the Yorke Peninsula lies 20km NE of Wallaroo, South Australia in the southern portion of the Gawler Craton. The tenements are prospective for iron oxide copper-gold mineralisation as found at Prominent Hill (OZ Minerals), Olympic Dam (BHP) and Hillside (Rex Minerals). The Project includes an option to Joint Venture into the Alford project (EL3969, PM268) with Argonaut Resources (ASX: ARE) to earn up to 75% of the project.

The gravity and pole-dipole IP geophysical surveys were completed during the Quarter with combined chargeability and gravity targets defined by 3D modelling for follow up with aircore drilling.

Five gravity anomalies within the Tickera Granite were defined on 200 by 200m gravity stations data with a number tested with IP lines and limited aircore drilling. Detailed in-fill gravity was completed along the main Alford East trend on a 50 by 400m spacing and the IP closed up to 200m centres. Eighty-five aircore holes for 5,364m were drilled to define the best geochemical anomalies and in-fill on the highest intercepts on coincident gravity, magnetic and chargeability anomalies.

Preliminary results from the drilling at Alford East has provided high priority targets for a short diamond drilling program that commenced in early April 2014.

7.0 CORPORATE

7.1 Satisfaction of Key Financing Completion Test

During the Quarter, Sandfire successfully met the project completion test required by its banking syndicate as part of the original \$380 million DeGrussa Project Finance Facility. This follows the transition of the DeGrussa Project to steady-state operations and marks a significant milestone.

The test comprised a comprehensive independent operational review including a series of stringent conditions covering key aspects of the operation:

- Mining rates and practices, including stope performance;
- Orebody reconciliation against the Ore Reserve;
- Concentrator performance and recovery profile;
- Paste plant performance;
- Concentrate quality and sales; and
- Operating and capital costs.

As a result of passing the project completion test:

- Sandfire will be able, at the discretion of the Board and subject to usual financing waterfall provisions, to apply surplus cash flow to dividends or other activities;
- The interest rate margin applying to the outstanding balance of the DeGrussa Project Finance Facility has reduced (by 0.75%), reflecting the reduced risk profile of the operation; and
- \$20 million has been released from the locked Cost Overrun Account.

7.2 Finance Facility

The scheduled \$40 million repayment of the DeGrussa Project Finance Facility was completed on 31 March 2014, reducing the outstanding balance of the facility to \$190 million (from \$230 million at 31 December 2013).

Following the 31 March 2014 repayment, a total of \$190 million of the original \$380 million DeGrussa Project Finance Facility has been repaid (with a total of \$95 million repaid for FY 2014 to date).

Cash on hand at 31 March 2014 totalled \$90 million, following the \$40 million repayment. A further \$16 million was received in early April 2014 from a shipment made at the end of the March 2014 Quarter.

7.3 Investment in WCB Resources

Subsequent to the end of the Quarter, Sandfire reached agreement to acquire an interest in WCB Resources Ltd ("WCB"; TSX-V: WCB), a Toronto-listed copper-gold explorer, by subscribing for shares in a A\$5.9M private share placement.

The proceeds from this private placement will be used to progress exploration including upcoming drilling programs at WCB's Misima Copper-Gold Project. WCB is earning a 70% interest in this project through a joint venture with Pan Pacific Copper ("PPC"), an integrated copper mining and smelting company that is jointly owned by JX Nippon Mining & Metals Corporation and Mitsui Mining & Smelting Company Ltd.

This investment provides Sandfire with exposure to a potential Tier-1 porphyry copper-gold exploration opportunity with outstanding upside. WCB has identified a substantial copper-gold porphyry target at Misima located adjacent to an historical gold mine formerly owned by Placer Dome Asia Pacific which produced 4.0Moz of gold and 20Moz of silver.

The main exploration target is the Misima Porphyry at Mt Sisa, where a very large 1km² copper soil anomaly coincides with extensive rock chips, shallow drilling and a deep strong magnetic anomaly with skarn mineralisation and halo veining at surface. WCB plans to undertake diamond drilling later this year to test this target.

The Misima Project is located within a porphyry belt which contains four of the world's richest primary grade copper and gold porphyries including Grasberg (4.9 billion tonnes @ 0.8% Cu and 0.7g/t Au), Ok Tedi (1.7 billion tonnes @ 0.7% Cu and 0.6g/t Au), Golpu (1 billion tonnes at 0.9% Cu and 0.6g/t Au) and Panguna (1.4 billion tonnes @ 0.5% Cu and 0.6g/t Au)*

The investment opportunity was identified by Sandfire's Business Development Team as part of its ongoing search for quality projects in Australia and overseas to build a pipeline of future organic growth opportunities. It is also consistent with the Company's strategy of seeking to foster and develop long-term strategic relationships with raw material end-users and traders globally.

7.4 Investor Call and Webcast

An investor conference call on Sandfire's March 2014 Quarterly Report will be held today (17 April 2014) for investors and analysts, commencing at 9.00am (WST) / 11.00am (AEST). Analysts, brokers and investors can join the conference call by dialling the following numbers:

Australia Toll Free:	1 800 558 698
Alternate Australia Toll Free:	1 800 809 971
International:	+61 2 9007 3187
Audio Access Code:	729174

The Quarterly Report and an accompanying Quarterly slide presentation will be available via the ASX Company Announcements Platform (Code: SFR), as well as at Sandfire's website: www.sandfire.com.au.

In addition, a live webcast of the investor call and the slide presentation will be available via the Boardroom Radio (BRR Media) service by clicking on the following link: <http://www.brr.com.au/event/122782>.

A recording of the webcast will be available at the same link shortly following the conclusion of the conference call.

ENDS

For further information, please contact:

Karl Simich – Managing Director/CEO
Office: +61 8 6430 3800

Media Inquiries:

Nicholas Read – Read Corporate:
Mobile: +61 419 929 046 (Nicholas Read)

Competent Person's Statement – Exploration Results

The information in this report that relates to Exploration Results is based on information compiled by Mr. Shannan Bamforth who is a Member of The Australasian Institute of Mining and Metallurgy. Mr. Bamforth is a permanent employee of Sandfire Resources and has sufficient experience that is relevant to the style of mineralization and type of deposit under consideration and to the activity which he is undertaking to qualify as Competent Person as defined in the 2012 Edition of the Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves. Mr Bamforth consents to the inclusion in the report of the matters based on his information in the form and context in which it appears.

Exploration and Resource Targets

Any discussion in relation to the potential quantity and grade of Exploration Targets is only conceptual in nature. While Sandfire is confident that it will report additional JORC compliant resources for the DeGrussa Project, there has been insufficient exploration to define mineral resources in addition to the current JORC compliant Mineral Resource inventory and it is uncertain if further exploration will result in the determination of additional JORC compliant Mineral Resources.

Forward-Looking Statements

Certain statements made during or in connection with this statement contain or comprise certain forward-looking statements regarding Sandfire's Mineral Resources and Reserves, exploration operations, project development operations, production rates, life of mine, projected cash flow, capital expenditure, operating costs and other economic performance and financial condition as well as general market outlook. Although Sandfire believes that the expectations reflected in such forward-looking statements are reasonable, such expectations are only predictions and are subject to inherent risks and uncertainties which could cause actual values, results, performance or achievements to differ materially from those expressed, implied or projected in any forward looking statements and no assurance can be given that such expectations will prove to have been correct. Accordingly, results could differ materially from those set out in the forward-looking statements as a result of, among other factors, changes in economic and market conditions, delays or changes in project development, success of business and operating initiatives, changes in the regulatory environment and other government actions, fluctuations in metals prices and exchange rates and business and operational risk management. Except for statutory liability which cannot be excluded, each of Sandfire, its officers, employees and advisors expressly disclaim any responsibility for the accuracy or completeness of the material contained in this statement and excludes all liability whatsoever (including in negligence) for any loss or damage which may be suffered by any person as a consequence of any information in this statement or any error or omission. Sandfire undertakes no obligation to update publicly or release any revisions to these forward-looking statements to reflect events or circumstances after today's date or to reflect the occurrence of unanticipated events other than required by the Corporations Act and ASX Listing Rules. Accordingly you should not place undue reliance on any forward looking statement.

Figure 3 – DeGrussa Copper-Gold Project Location

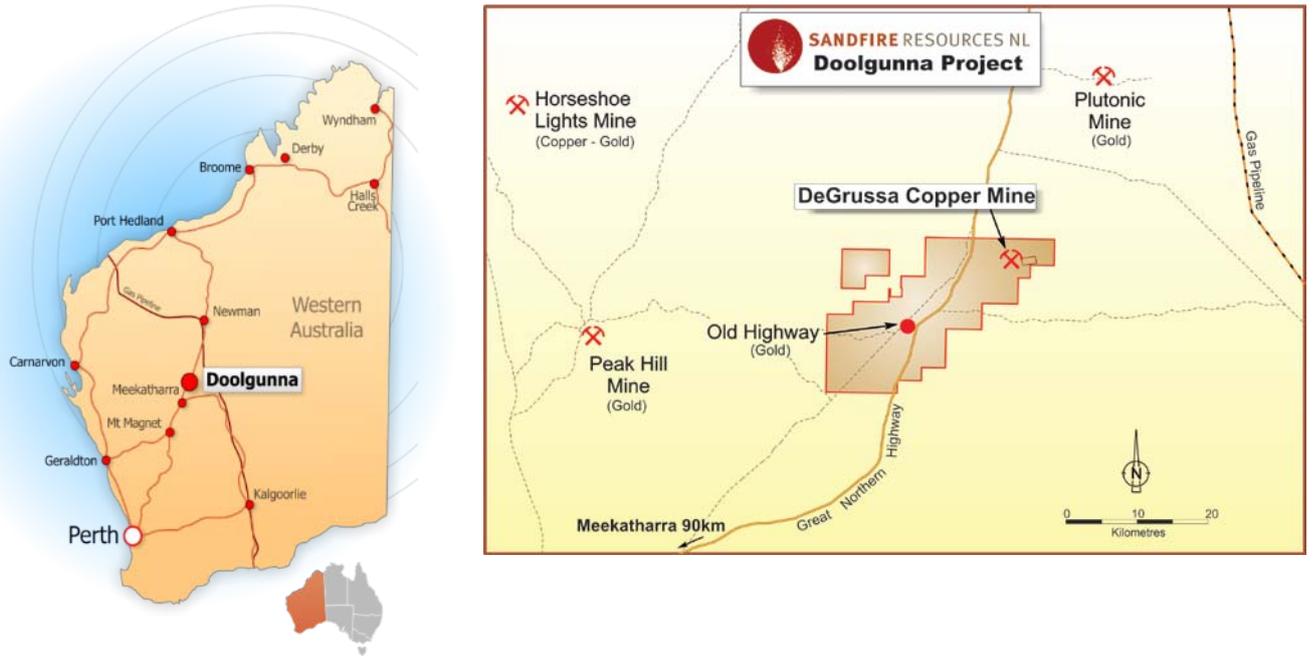


Figure 4 – Strategic location in an emerging VMS belt: Talisman and Ventnor Joint Ventures

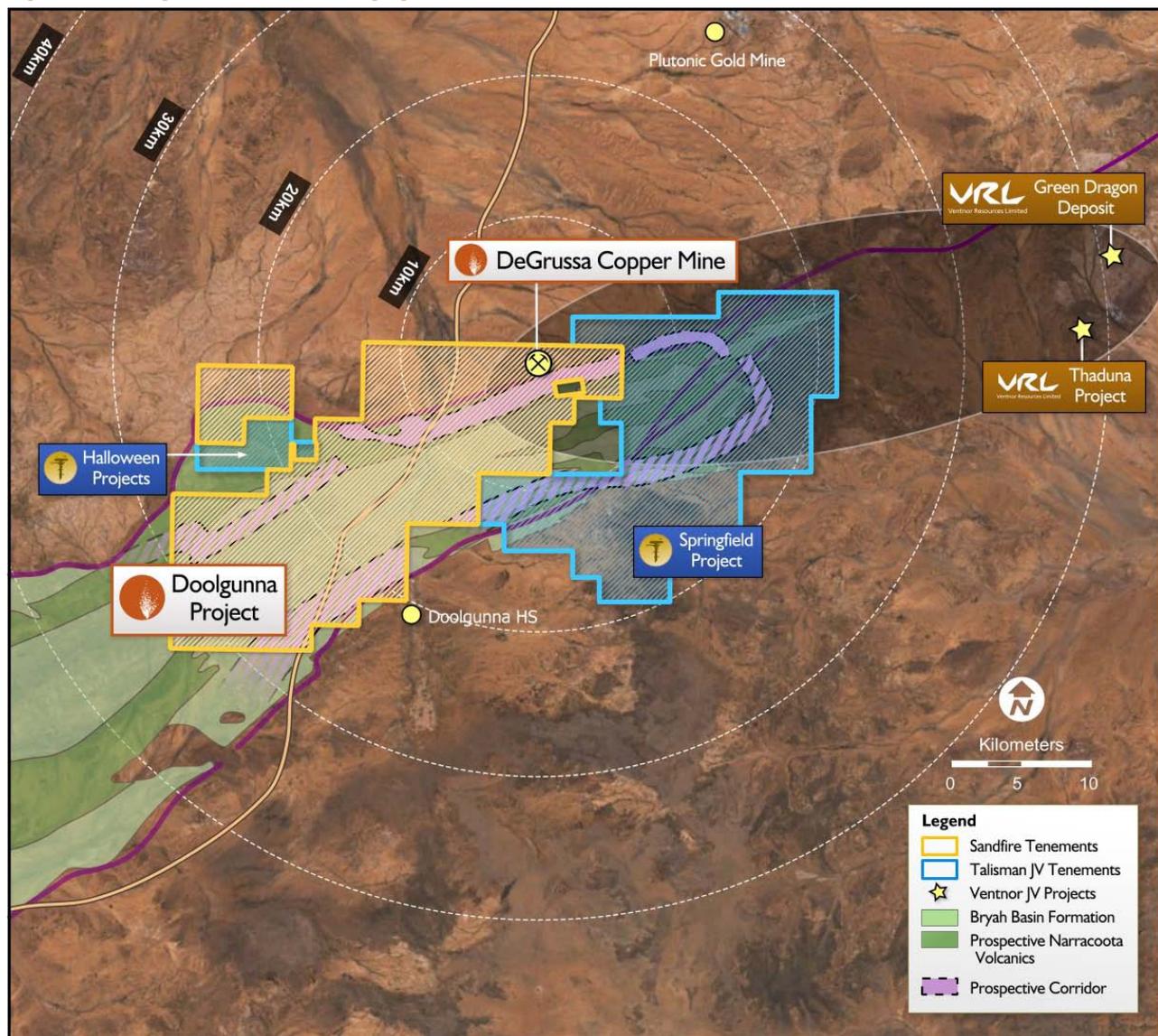
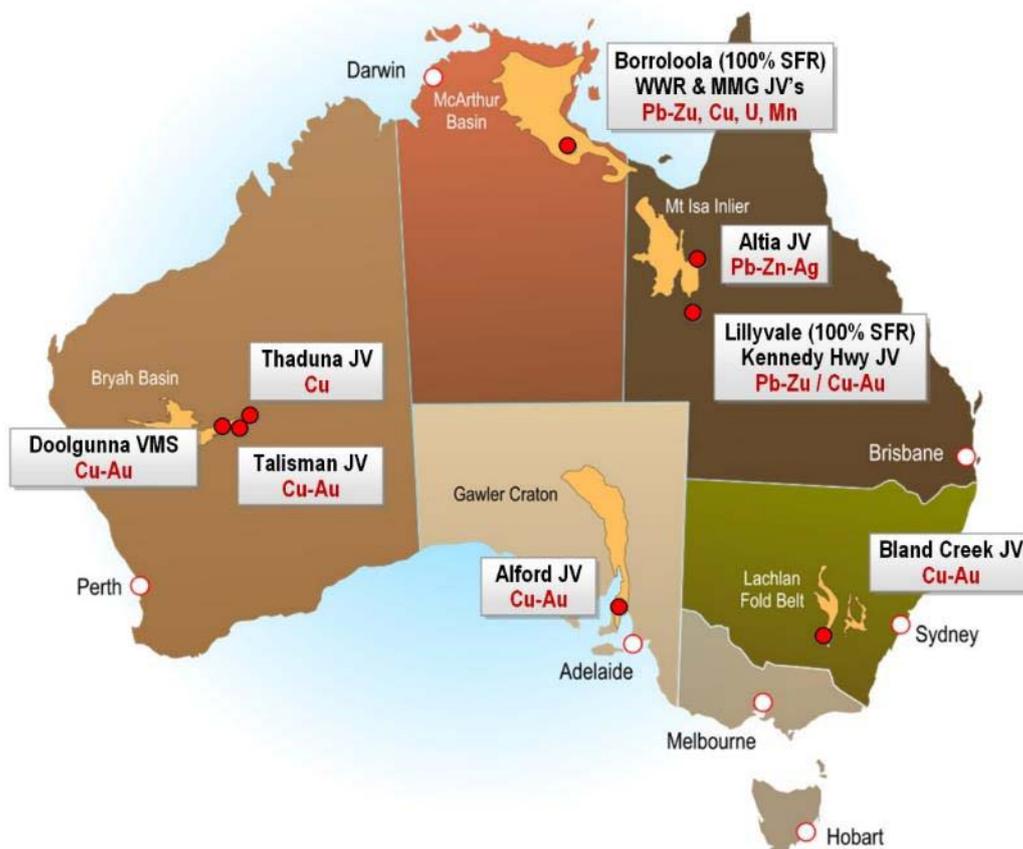


Figure 5 – Australian Joint Venture and Exploration Project Locations



JORC Compliance Statement

A summary of the information used in this release is as follows.

The DeGrussa VHMS (volcanic-hosted massive sulphide) copper-gold deposit is located 900 kilometres north of Perth and 150 kilometres north of Meekatharra in the Peak Hill Mineral Field. The system is hosted within a sequence of metasediments and mafic intrusions situated in the Bryah Basin that have been metamorphosed and structurally disrupted.

The sulphide mineralisation consists of massive sulphide and semi-massive sulphide mineralisation. Primary sulphide minerals present are pyrite, chalcopyrite, pyrrhotite and sphalerite, together with magnetite. The sulphide mineralisation is interpreted to be derived from volcanic activity. The deposit shares characteristics with numerous VHMS deposits worldwide.

DeGrussa is located wholly within Mining Lease 52/1046. This tenement is subject to the Yugunga-Nya (WC99/046) and Gingirana Claims (WC06/002). A Land Access Agreement was executed with both claimant groups in November 2010. Sandfire is required to make royalty payments to the State and affected Native Title Claimants on a periodical basis.

Drilling of the DeGrussa massive sulphide lens (of which there are four defined lenses of mineralisation) and surrounding area is by diamond drill holes of NQ2 diameter core and, to a lesser extent, by Reverse Circulation (RC) face sampling hammer drilling. The nominal drill-hole spacing is less than 80m x 40m in the inferred areas of the Mineral Resource and increases in density as the classification increases to Measured where nominal 13m x 20m drill hole spacing is achieved. Drilling has been by conventional diamond drilling with a small number of holes aided by the use of navigational drilling tools. RC drilling was completed with a nominal 140mm face sampling hammer and split on a cone or riffle splitter. Drill-hole collar locations were surveyed using RTK GPS, and all holes were down-hole surveyed using high speed gyroscopic survey tools.

Sampling of diamond core was based on geological intervals (standard length 0.5 m to 1.3 m). The core was cut into half or quarter (NQ2) to give sample weights up to 3 kg. RC samples were 1.0m samples down-hole, with sample weights between 3.5kg and 7kg depending on material type. Field quality control procedures involved assay standards, along with blanks and duplicates. These QC samples were inserted at an average rate of 1:15.

The sample preparation of diamond core involved oven drying, coarse crushing of the core sample down to ~10 mm followed by pulverisation of the entire sample to a grind size of 90% passing 75 micron. A pulp sub-sample was collected for analysis by either four acid digest with an ICP/OES, ICP/MS (multi element) finish or formed into fused beads for XRF determination on base metals and a fire assay for Au.

All reported assays have been length weighted. No top-cuts have been applied. A nominal 0.3% Cu lower cut-off is applied. High grade intervals internal to broader zones of sulphide mineralisation are reported as included intervals.

The attitude of the ore bodies at DeGrussa is variable but there is a dominant southerly dip from ~40 to 90 degrees flat-lying and is drilled to grid west with drill holes inclined between -60 and -90 degrees. As such the dominant hole direction is north and with varying intersection angles all results are clearly defined as either down hole or approximate true width.

Density of the massive sulphide orebody ranges from 2.8g/cm³ to 4.9g/cm³, with an average density reading of 3.7g/cm³. Geotechnical and structural readings recorded from diamond drilling include recovery, RQD, structure type, dip, dip direction, alpha and beta angles, and descriptive information. All data is stored in the tables Oriented Structure, Geotechnical RQD, Core Recovery, Interval Structure as appropriate.

A suite of multi-element assays are completed on each mineralised sample and include all economic and typical deleterious elements in copper concentrates. This suite includes Cu, Au, Ag, Zn, Pb, S, Fe, Sb, Bi, Cd and As.

Regional drilling has been completed using a combination of RC and AC drilling. A majority of the drilling is preliminary in nature and starts with 800m x 100m AC drilling where the geology and geochemistry is re-evaluated to determine the requirement for follow 400m x 100m drilling. If significant anomalism is identified in the AC drilling then follow up RC drilling will be conducted to determine the opportunity for delineating potentially economic mineralisation. Whilst the main aim of the exploration at Doooolgunna is to identify additional VHMS mineralisation in some areas of regional land holding it is currently interpreted that there is shear zones located on the contact between dolerite and sediments hosting auriferous quartz vein stockworks with some coincident copper.

AC and RC regional samples are prepared at Ultra Trace in Perth with the original samples being dried at 80° for up to 24 hours and weighed, and then crushed to -4mm. Samples are then split to less than 2kg through linear splitter and excess retained. Sample splits are weighed at a frequency of 1/20 and entered into the job results file. Pulverising is completed using LM5 mill to 90% passing 75µm. Assaying is completed using a Mixed 4 Acid Digest (MAD) 0.3g charge and MAD Hotbox 0.15g charge methods with ICPOES or ICPMS. The samples are digested and refluxed with a mixture of acids including Hydrofluoric, Nitric, Hydrochloric and Perchloric acids and conducted for multi elements including Cu, Pb, Zn, Ag, As, Fe, S, Sb, Bi, Mo. The MAD Hotbox method is an extended digest method that approaches a total digest for many elements however some refractory minerals are not completely attacked. The elements are then determined by ICPOES or ICPMS finish. Samples are analysed for Au, Pd and Pt by firing a 40g of sample with ICP AES/MS finish.

Appendix 1 – Exploration Drilling Results

Regional Exploration Surface Drilling (AC/RC)

Hole ID	Hole Type	MGA Zone 50 Co-ordinates						Intersection				Mineralisation			
		East	North	RL	Depth (m)	Azimuth	Inclination	From (m)	To (m)	Intercept Down Hole	Approx True Width	Cu [ppm]	Au [ppm]	Zn [ppm]	Sample Type
DGAC4279	AC	723609	7157539	556	80	340°	-60°	40	45	5	N/A	690			Spear Composite
DGAC4291	AC	723027	7161478	553	131	340°	-60°	70	75	5	N/A	530		185	Spear Composite
DGAC4299	AC	723301	7160726	555	105	340°	-60°	95	100	5	N/A	530		175	Spear Composite
DGAC4304	AC	723472	7160256	556	131	340°	-60°	100	105	5	N/A	545			Spear Composite
DGAC4310	AC	723677	7159692	555	165	340°	-60°	130	140	10	N/A	815		100	Spear Composite
DGAC4314	AC	723814	7159316	556	42	340°	-60°	25	35	10	N/A	515		140	Spear Composite
DGAC4328	AC	719883	7163100	557	147	340°	-60°	45	50	5	N/A	965		585	Spear Composite
								70	75	5	N/A	540		300	Spear Composite
DGAC4336	AC	719883	7161930	557	116	340°	-60°	40	45	5	N/A	705		165	Spear Composite
DGAC4358	AC	720635	7159862	555	50	340°	-60°	35	40	5	N/A	595		155	Spear Composite
DGAC4381	AC	719849	7159683	558	58	340°	-60°	20	30	10	N/A	545		245	Spear Composite
DGAC4402	AC	720568	7157709	557	82	340°	-60°	55	60	5	N/A	620		105	Spear Composite
DGDD241	DD	733775	7173061	562	961	257°	-53°	657.77	661.07	3.30	N/A	5450	0.14		1/2 Core
DGDD296	DD	733392	7172935	559	513	1°	-64°	372.00	373.00	1.00	N/A	1020			1/2 Core
DGDD393	DD	733232	7172761	559	809	356°	-68°	554.61	557.38	2.77	N/A	1756	0.21	352	1/2 Core
DGDD395	DD	732300	7168500	564	397	357°	-60°	209.00	212.00	3.00	N/A		2.52		1/2 Core
DGDD396	DD	732300	7173518	564	501	352°	-78°				N/A	NSA	NSA	NSA	1/2 Core
DGDD397	DD	734610	7169171	563	1014	345°	-65°				N/A	AP	AP	AP	1/2 Core
DGDD398	DD	725459	7169956	546	637	345°	-65°				N/A	AP	AP	AP	1/2 Core
DGDD399	DD	725489	7168250	562	356	360°	-60°				N/A	AP	AP	AP	1/2 Core

NSA – No significant result

AP – Assays pending

**TABLE 1: EXPLORATION RESULTS - JORC 2012
DEGRUSSA COPPER MINE**

Section 1: Sampling Techniques and Data

Criteria	JORC Code explanation	Commentary
Sampling techniques	<ul style="list-style-type: none"> 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. 	<ul style="list-style-type: none"> Sampling methods include half-core sampling of NQ2 core from underground diamond drilling (DD) , Reverse Circulation drilling (RC) samples are collected by a cone splitter for single metre samples or by a smpling spear for first pass composite samples using a face sampling hammer with a nominal 140mm hole, aircore drilling. Air Core (AC) samples are collected from spear samples for both composite and single metre samples. Sampling is guided by Sandfire DeGrussa protocols and QAQC procedures as per industry standard. Underground DD sample size reduction is completed through a Jaques jaw crusher to -10mm and all samples Boyd crushed to -4mm and pulverised via LM2 to nominal 90% passing -75µm. RC and AC sample size reduction is completed through a Boyd crusher to -10mm and pulverised via LM5 to nominal -75µm. Pulp size checks are completed. Pulp samples are fused into a glass bead by the combination of 0.4g of assay sample plus 9.0g flux XRF analysis. A 40g and 0.15g assays charges are used for FA and mixed acid digest respectively. Core samples areroutinely sampled for SG determination.
Drilling techniques	<p><i>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).</i></p>	<ul style="list-style-type: none"> Underground drilling is completed by DD rig with a core size of NQ2. Surface drilling is by RC with sampling hammer of nominal 140mm hole and AC drilling with a blade bit. . All surface drill collars are surveyed using RTK GPS . All underground drill collars are surveyed using Trimble S6 electronic theodolite with downhole survey completed by gyroscopically.. Holes are inclined at varying angles for optimal ore zone intersection from the drilling position. All core where possible is oriented using a Reflex ACT II RD orientation tool with stated accuracy of +/-1% in the range 0 to 88°.
Drill sample recovery	<ul style="list-style-type: none"> <i>Method of recording and assessing core and chip sample recoveries and results assessed.</i> <i>Measures taken to maximise sample recovery and ensure representative nature of the samples.</i> <i>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.</i> 	<ul style="list-style-type: none"> Core is meter marked and orientated to check against the driller's blocks, ensuring that all core loss is taken into account. Diamond core recovery is logged and captured into the database with weighted average core recoveries of approximately 99%. Surface RC sampling is good with almost no wet sampling in the project area. AC drilling recovery is good with sample quality captured in the database. Samples are routinely weighed and captured into the central secured database. No sample recovery issues have impacted on potential sample bias.

Logging	<ul style="list-style-type: none"> • <i>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.</i> • <i>Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc) photography.</i> • <i>The total length and percentage of the relevant intersections logged.</i> 	<ul style="list-style-type: none"> • Geological logging is completed for all holes and representative across the ore body. The lithology, alteration, and structural characteristics of core are logged directly to a digital format following standard procedures and using Sandfire DeGrussa geological codes. Data is imported into the central database after validation in LogChief™. • Logging is both qualitative and quantitative depending on field being logged. • All cores are digitally photographed and stored.
Sub-sampling techniques and sample preparation	<ul style="list-style-type: none"> • <i>If core, whether cut or sawn and whether quarter, half or all core taken.</i> • <i>If non-core, whether riffled, tube sampled, rotary split, etc and whether sampled wet or dry.</i> • <i>For all sample types, the nature, quality and appropriateness of the sample preparation technique.</i> • <i>Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples.</i> • <i>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.</i> • <i>Whether sample sizes are appropriate to the grain size of the material being sampled.</i> 	<ul style="list-style-type: none"> • DD Core orientation is completed where possible and all are marked prior to sampling. Half core samples are produced using Almonte Core Saw. Samples are weighed and recorded. • RC samples are split using a cone or riffle splitter. A majority of RC samples are dry. On occasions that wet samples are encountered they are dried prior to splitting with a riffle splitter. • AC samples consist of 5m composite spear samples produced from 1m drilling with weights averaging approximately 3kg. In certain locations after composite samples are received additional 1m sampling may be completed • At the on-site laboratory, the original sample is dried at 80° for up to 24 hours and weighed on submission to laboratory. Sample is then crushed through Jaques crusher to nominal -10mm (DD samples only). Second stage crushing Boyd crusher to nominal -4mm. Where required samples are split to less than 2kg through linear splitter. Sample splits are weighed at a frequency of 1/20 and entered into the job results file. Pulverising is completed using LM2 mill to 90% passing 75µm. Two lots of pulp packets are retained for on-site laboratory services whilst the pulverised residue is shipped to Ultra Trace in Perth for further analysis. • Sample preparation at Ultra Trace in Perth involves the original samples being dried at 80° for up to 24 hours and weighed. DD Samples are then crushed through Jaques crusher to nominal -10mm. Second stage crushing uses Boyd crusher to nominal -4mm. All RC and AC samples are Boyd crushed to -4mm. Samples are then split to less than 2kg through linear splitter and excess retained. Sample splits are weighed at a frequency of 1/20 and entered into the job results file. Pulverising is completed using LM5 mill to 90% passing 75µm. • Sandfire has protocols that cover auditing of sample preparation at the laboratories and the collection and assessment of data to ensure accurate steps in producing representative samples for the analytical process. Key performance indices include contamination index of 90% (that is 90% blanks pass); Crush Size index of P95-10mm; Grind Size index of P90-75µm and Check Samples returning at worse 20% precision at 95% confidence interval and bias of 5% or better. • Duplicate analysis has been completed and identified no issues with sampling representatively. • The sample size is appropriate for the VHMS and Gold mineralisation styles.

<p>Quality of assay data and laboratory tests</p>	<ul style="list-style-type: none"> • <i>The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total.</i> • <i>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.</i> • <i>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.</i> 	<ul style="list-style-type: none"> • Samples submitted to Ultra Trace in Perth are assayed using Mixed 4 Acid Digest (MAD) 0.3g charge and MAD Hotbox 0.15g charge methods with ICPOES or ICPMS. The samples are digested and refluxed with a mixture of acids including Hydrofluoric, Nitric, Hydrochloric and Perchloric acids and conducted for multi elements including Cu, Pb, Zn, Ag, As, Fe, S, Sb, Bi, Mo, Re, Mn, Co, Cd, Cr, Ni, Se, Te, Ti, Zr, V, Sn, W and Ba. The MAD Hotbox method is an extended digest method that approaches a total digest for many elements however some refractory minerals are not completely attacked. The elements S, Cu, Zn, Co, Fe, Ca, Mg, Mn, Ni, Cr, Ti, K, Na, V are determined by ICPOES, and Ag, Pb, As, Sb, Bi, Cd, Se, Te, Mo, Re, Zr, Ba, Sn, W are determined by ICPMS. Samples are analysed for Au, Pd and Pt by firing a 40g of sample with ICP AES/MS finish. Lower sample weights are employed where samples have very high S contents. This is a classical FA process and results in total separation of Au, Pt and Pd in the samples. • Samples submitted to the on-site laboratory have 0.4g of sample plus 9.0g flux combined and fused into a glass bead. XRF is used to analyse for a suite of elements (including Cu, Fe, SiO₂, Al, Ca, MgO, P, Ti, Mn, Co, Ni, Zn, As, and Pb). Pulps are dispatched to Ultra Trace in Perth for ICPOES or ICPMS for extended elements (including Cu, Fe, As, Pb, S, Zn, Fe, Ag, Sb, Bi, Cd, Cl, F, and Hg). Au, Pt, and Pd analysed by FA/ICP AES/MS on a 40g assay charge (assay charge is variable depending on Sulphur content). • Sandfire DeGrussa QAQC protocol is considered industry standard with standard reference material (SRM) submitted on regular basis with routine samples. • SRMs and blanks are inserted at a minimum of 5% frequency rate. A minimum of 2% of assays are routinely re-submitted as Check Assays and Check Samples through blind submittals to external and primary laboratories respectively. Adhoc umpire checks are completed annually.
<p>Verification of sampling and assaying</p>	<ul style="list-style-type: none"> • <i>The verification of significant intersections by either independent or alternative company personnel.</i> • <i>The use of twinned holes.</i> • <i>Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.</i> • <i>Discuss any adjustment to assay data.</i> 	<ul style="list-style-type: none"> • Significant intersections have been verified by alternative company personnel. • There are no twinned holes drilled for the DeGrussa deposit. • Primary data are captured on field tough book laptops using Logchief™ Software. The software has validation routines and data is then imported into a secure central database. • The primary data is always kept and is never replaced by adjusted or interpreted data.

Location of data points	<ul style="list-style-type: none"> • 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. 	<ul style="list-style-type: none"> • Sandfire DeGrussa Survey team undertakes survey works under the guidelines of best industry practice. • Underground drilling collar surveys are carried out using Trimble S6 electronic theodolite and wall station survey control. Re-traverse is carried out every 100 vertical meters within main decline. Downhole surveys are completed by gyroscopic downhole methods at regular intervals. • Downhole survey completed by gyroscopic downhole methods at regular intervals in the mine area or by electronic multishot systems in regional exploration. • MGA94 Zone 50 grid coordinate system is used. • A 1m ground resolution DTM with an accuracy of 0.1m was collected by Digital Mapping Australia using LiDAR and a vertical medium format digital camera (Hasselblad). The LiDAR DTM and aerial imagery were used to produce a 0.1m resolution orthophoto that has been used for subsequent planning purposes.
Data spacing and distribution	<ul style="list-style-type: none"> • 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. 	<ul style="list-style-type: none"> • UG DD drilling was at a nominal 40m x 30m grid with additional holes in areas of potential complexity to remove bias. • DD Data spacing and distribution are sufficient to establish geological and grade continuity. This latest drilling has not been included in the Mineral Resources. • No sample compositing have been applied to the Exploration Results. • RC drilling is at a nominal nominal 100m line spacing at Cow Hole Bore. • AC drill spacing is initially at 800m x 100m line spacing with infill to 400m x 100m in areas of geological or geochemical interest.
Orientation of data in relation to geological structure	<ul style="list-style-type: none"> • 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. 	<ul style="list-style-type: none"> • The majority of the DD drillholes are orientated to achieve intersection angles as close to perpendicular to the mineralisation as practicable. • No significant sampling bias occurs in the data due to the orientation of drilling with regards to mineralised bodies. • In regional exploration holes are oriented to achieve high angles of intersection. DD drilling is used as required to determine structural orientations in regional programs.
Sample security	<ul style="list-style-type: none"> • The measures taken to ensure sample security. 	<ul style="list-style-type: none"> • All samples are prepared onsite under the supervision of Sandfire Geological staff. • Samples are transported to the Perth Ultra Trace laboratory by Toll IPEC or Nexus transport companies in sealed bulka bags, or to the onsire laboratory by company personell. • The laboratories receipt received samples against the sample dispatch documents and issues a reconciliation report for every sample batch.
Audits or reviews	<ul style="list-style-type: none"> • The results of any audits or reviews of sampling techniques and data. 	<ul style="list-style-type: none"> • The sampling techniques and data collection processes are of industry standard and have been subjected to multiple internal and external reviews.

Section 2: Reporting of Exploration Results

Criteria	JORC Code explanation	Commentary
Mineral tenement and land tenure status	<ul style="list-style-type: none"> 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. 	<ul style="list-style-type: none"> M52/1046, E52/1698, E52/1699, E52/1715, E52/2208, E52/2209, E52/2358 and E52/2401 are wholly owned by Sandfire Resources NL, with no known third party ownership encumbrances. All tenements are current and in good standing. The mentioned tenements are currently subject to 3 Native Title Claims by the Gingirana People (WC06/002), the Yungunga-Nya People (WC99/046) and the Nharnuwangga Wajarri Ngarlawangga People (WC99/013). Sandfire currently has Land Access Agreements in place with the Gingirana and Yungunga-Nya Native Title Claimants which overlay the DeGrussa Copper deposit and has allowed mining and exploration activities to commence on their traditional land.
Exploration done by other parties	<ul style="list-style-type: none"> Acknowledgment and appraisal of exploration by other parties. 	<ul style="list-style-type: none"> There has been no significant previous historical drilling by parties other than Sandfire Resources N.L. within the leases.
Geology	<ul style="list-style-type: none"> Deposit type, geological setting and style of mineralisation. 	<ul style="list-style-type: none"> The Degrussa Copper Mine is a Volcanogenic Massive Sulphide deposit located with the Proterozoic Bryah Basin of Western Australia. In some areas zones of regional land holding it is currently interpreted that there is shear zones located on the contact between dolerite and sediments hosting an auriferous quartz vein stockworks with some coincident copper mineralisation.
Drill hole Information	<ul style="list-style-type: none"> 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: <ul style="list-style-type: none"> 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. 	<ul style="list-style-type: none"> Refer to Appendix 1 of this accompanying document. All DD drillholes are downhole gyroscopically surveyed at completion with Total Station survey pickup of drill collars. Electronic multishot downhole surveys are completed for RC drilling and with a subset of holes gyroscopically surveyed for internal checks. AC drill holes ore not down hole surveyed

Data aggregation methods	<ul style="list-style-type: none"> <i>In reporting Exploration Results, weighting averaging techniques, maximum and/or minimum grade truncations (eg cutting of high grades) and cut-off grades are usually Material and should be stated.</i> <i>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.</i> <i>The assumptions used for any reporting of metal equivalent values should be clearly stated.</i> 	<ul style="list-style-type: none"> Significant Resource intersections are calculated using a 0.5% Cu cut-off grade and may include up to a maximum of 3.0m of internal dilution, with a minimum composite grade of 1.0% Cu. Cu grades used for calculating significant intersections are uncut. Reported intersections are based on a regular sample interval of 1m or 5m composites in regional drilling subject to the location of geological boundaries. Minimum and maximum sample intervals used for intersection calculations are 0.3m and 1.3m respectively. No metal equivalents are used in the intersection calculation. Where core loss occurs; the average length-weighted grade of the two adjacent samples are attributed to the interval for the purposes of calculating the intersection. The maximum interval of missing core which can be incorporated with the reported intersection is 1.0m.
Relationship between mineralisation widths and intercept lengths	<ul style="list-style-type: none"> <i>These relationships are particularly important in the reporting of Exploration Results.</i> <i>If the geometry of the mineralisation with respect to the drill-hole angle is known, its nature should be reported.</i> <i>If it is not known and only the down hole lengths are reported, there should be a clear statement to this effect (eg 'down hole length, true width not known').</i> 	<ul style="list-style-type: none"> Estimated true width is presented in the Table in Appendix 1 where possible Underground drilling is based on the DeGrussa local mine grid. Where the geometry of the mineralisation is known; estimated true widths of mineralisation will be estimated and reported. Where the geometry is uncertain; no true width of mineralisation will be estimated or reported.
Diagrams	<ul style="list-style-type: none"> <i>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.</i> 	<ul style="list-style-type: none"> Appropriate maps and cross-sections with scale are included within the body of the accompanying document
Balanced reporting	<ul style="list-style-type: none"> <i>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 avoid misleading reporting of Exploration Results.</i> 	<ul style="list-style-type: none"> The accompanying document is considered to represent a balanced report.
Other substantive exploration data	<ul style="list-style-type: none"> <i>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.</i> 	<ul style="list-style-type: none"> Other exploration data collected is not considered as material to this document at this stage. Further data collection will be reviewed and reported when considered material.
Further work	<ul style="list-style-type: none"> <i>The nature and scale of planned further work (eg tests for lateral extensions or depth extensions or large-scale step-out drilling).</i> <i>Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive.</i> 	<ul style="list-style-type: none"> Exploration drilling will continue to target projected lateral and depth extensions of known mineralisation. Additionally regional anomalism will be investigated as required to determine the opportunity to identify economic mineralisation.