



**SANDFIRE RESOURCES NL**

A QUALITY COPPER-GOLD COMPANY ASX Code- SFR

28 July 2017

ASX Limited  
Level 40, Central Park  
152-158 St George's Terrace  
Perth WA 6000

**LODGEMENT OF JUNE 2017 QUARTERLY REPORT, QUARTERLY UPDATE PRESENTATION  
AND INVESTOR CONFERENCE CALL AND WEBCAST**

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

1. June 2017 Quarterly Activities Report
2. June 2017 Quarterly Update Powerpoint Presentation

In addition, a teleconference and live webcast on the June 2017 Quarterly Report will be held for the investment community at 10.00am (AWST) / 12.00pm (AEST) today.

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

Live date: Friday, 28 July 2017

Access this webcast at: <http://webcasting.boardroom.media/broadcast/5962ded2c8d9977c89ce70f3>  
<http://www.sandfire.com.au>

Yours sincerely,

**Matt Fitzgerald**  
**Chief Financial Officer**  
**and Company Secretary**



## QUARTERLY REPORT

### For the period ended 30 June 2017

#### Highlights

#### Production & Operations

Contained metal production	September 2016 Quarter	December 2016 Quarter	March 2017 Quarter	June 2017 Quarter	FY2017 Total
<b>Copper (t)</b>	15,610	18,130	16,256	17,092	67,088
<b>Gold (oz)</b>	9,731	10,183	8,988	9,721	38,623
<b>C1 cost (US\$/lb)</b>	1.06	0.81	0.94	0.95	0.93

- Strong mine production and milling rates maintained for the Quarter.
- Updated Mine Plan, Ore Reserve and Mineral Resource statement delivered for the DeGrussa Mining Operation, incorporating the new satellite Monty copper-gold deposit.
- FY2018 production guidance: 63-66kt Cu and 35-38koz gold at C1 US\$1.00-1.05/lb.

#### Development Projects

- Mining Proposal and Mine Closure Plan approved for the Monty Copper-Gold Mine (Springfield JV, SFR 70%: TLM 30%), paving the way for site-based development activities to commence.
- \$8.2M contract for Monty civils and earthworks awarded to Yagahong Alliance Pty Ltd, a joint venture between Central Earthmoving Company Pty Ltd and the Yugunga-Nya People.
- Site works commenced at Monty, with excavation of the box-cut for underground access and construction of the 14km long haul road now underway.
- Permitting continues for the Black Butte Copper Project, Montana, USA.

#### Exploration

- Multi-pronged exploration programs continuing across Sandfire's Greater Doolgunna Project which, including Joint Venture and Farm-in Agreements, now covers a total area of 5,846km<sup>2</sup>.
- Deep diamond drilling completed along strike from Monty targeting potential down-dip and along-strike mineralisation within the same host sediment sequence, providing a platform for deep EM surveys.
- Major aircore drilling program underway at the Enterprise Metals farm-in project, designed to aid geological interpretation of the interpreted favourable host sequence which hosts the DeGrussa and Monty copper-gold deposits.
- Drilling at the Donnington prospect in Temora, NSW continues, with anomalous copper and gold mineralisation identified in all of the 8 holes completed to date over a strike extent of 1.2km. A peak result of 77m @ 0.44% Cu and 0.65g/t Au including 24m @ 0.87% Cu and 1.38g/t Au was returned from hole TMMRD011, drilled 100m south of TMRD006 reported last quarter. The mineralisation is open in all directions.
- Fieldwork has commenced on multiple prospective targets in the eastern succession of Queensland.

#### Corporate

- Group cash on hand as at 30 June 2017: \$127 million.

## 1.0 SAFETY PERFORMANCE

The Total Recordable Injury Frequency Rate (TRIFR) for the Sandfire Group at the end of June was 4.9 (March Quarter: 5.7). Recordable injuries include those that result in any days away from work (Lost Time Injuries), of which there were none in the Quarter, and those where an employee or contractor cannot perform all or any part of their normal shift (Restricted Work Day Injuries), as well as any injury that requires services that only a medical practitioner can provide (Medical Treatment Injuries).

Safety systems development continues to focus on the prevention of incidents and improving the safety culture of both employees and contractors, with principal hazard management a key theme.

## 2.0 OPERATIONS OVERVIEW

Copper production for the June Quarter was 17,092 tonnes (March Quarter: 16,256 tonnes). C1 cash operating costs for the Quarter were US\$0.95/lb (March Quarter: US\$0.94/lb).

Mine production for the Quarter was 393,286 tonnes grading 4.6% Cu. During the Quarter, production was sourced from all lenses at DeGrussa.

A total of 412,271 tonnes of ore grading 4.6% Cu was milled for the June Quarter, with copper recovery averaging 90.8%.

## 3.0 MINING & PRODUCTION

### 3.1 Overview

June 2017 Quarter – Production Statistics		Tonnes	Grade (% Cu)	Grade (g/t Au)	Contained Copper (t)	Contained Gold (oz)
Concentrator	Mined	393,286	4.6	1.6	18,224	20,037
	Milled	412,271	4.6	1.6	18,814	20,832
<b>Production</b>		<b>70,268</b>	<b>24.3</b>	<b>4.3</b>	<b>17,092</b>	<b>9,721</b>

**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.

### 3.2 Underground Mining

During the Quarter, production was sourced from all lenses at DeGrussa with the mine remaining in balance between production and back-fill. Work also continued on the main underground pump stations, which is targeted for completion in the September 2017 Quarter.

### 3.3 Processing

Mill throughput in the June Quarter was as planned with planned maintenance shut-downs completed in April and June, as well as normal operational issues.

Copper recovery for the June Quarter was in line with the predicted recovery based on the resource copper grade and Cu:S ratio at 90.8%. Sandfire continues to pursue opportunities for further improvements in copper recovery. The installation of additional rougher flotation capacity was completed in late June and early results have shown this additional rougher capacity has improved copper recovery in line with expectations.

### 3.4 Projects

The solar farm has recommenced operation and is providing power, albeit constrained by ongoing reliability and integration issues, to meet underground mine and concentrator requirements in conjunction with the DeGrussa diesel power facility.

The Company intends to install additional equipment to increase the rate of back-filling at the DeGrussa Underground Mine to match the production plan of the mine. This equipment will be operational early in the December 2017 Quarter.

### **3.5 Guidance – FY2018**

FY2018 targeted copper production is expected to be within the range of 63-66,000 tonnes of contained copper metal with gold production within the range of 35-38,000 ounces. Headline C1 cash operating costs are expected to be within the range of US\$1.00-1.05/lb.

Refer to Sandfire's June 2017 Quarterly Presentation (released today) for further detail and guidance on operating parameters, unit costs and planned capital expenditure.

## **4.0 SALES AND MARKETING**

### **4.1 Copper Concentrate Shipments**

A total of 72,525 dry metric tonnes of concentrate containing 17,350 tonnes of copper (16,614 tonnes payable) and 9,135 ounces of gold (8,443 ounces payable) was sold for the Quarter. 7 shipments were completed from Port Hedland and Geraldton.

## **5.0 DEVELOPMENT PROJECTS**

### **5.1 Monty Copper-Gold Project**

#### **Project Approvals**

Approval for the Mining Proposal and Mine Closure Plan for the Monty Copper-Gold Mine, located 10km east of DeGrussa, was received shortly after the end of the reporting period. This key environmental approval authorises the Joint Venture to commence ground-breaking and mining activities at Monty. A number of other ancillary approvals were also received during the quarter.

The Monty Mining Proposal was one of the first new projects in Western Australia to be assessed and approved under the Department of Mines, Industry Regulation and Safety (DMIRS) new Mining Proposal Guidelines, and was achieved in under three months.

#### **Award of Civils and Earthmoving Contract**

The \$8.2 million contract for civils and earthmoving works for the Monty Project was awarded to the Yagahong Alliance, a joint venture between the Geraldton-based earthmoving and civil contracting company Central Earthmoving and the Yugunga-Nya People, the traditional owners of the project area.

The earthmoving and civils contract, which was awarded following a competitive tender process, encompasses the development of a 14km long haul road from Monty to the DeGrussa Copper Mine, local access roads, stockpile and laydown area pads, the excavation of a box-cut for underground access and additional infrastructure works and drainage. Initial site works under the contract are underway.

The Yagahong Alliance already provides a number of site-based earthmoving and contracting services for Sandfire under a contract which it secured in July 2015.

The Yugunga-Nya People and Central Earthmoving formed the Yagahong Alliance to tender for earthmoving and mining services opportunities with the aim of employing Aboriginal people in the Midwest region.

The success of the Yagahong Alliance has been recognised by the Civil Contractors Federation who awarded Centrals the WA 2016 Aboriginal Engagement Award and by other Traditional Owner representative bodies, who have sought to replicate the JV model in their country.

#### **Commencement of Construction**

Following the approval of the Mining Proposal, the Yagahong Alliance immediately commenced construction of the 14km long haul road from Monty to DeGrussa and the box-cut for underground access.

Cutting of the decline portal for the new underground mine is expected to commence in the December quarter of this year and underground development is expected to take approximately one year to access first ore.

## 5.2 DeGrussa Oxide Copper Project

Negotiations continued with the holders of the non-acid leaching technology to carry out a significant testwork program and study into the extraction of valuable metals from oxide copper-gold stockpiles at DeGrussa. It is anticipated that agreement may be reached in July. Meanwhile sample preparation has commenced in anticipation of testwork getting underway in the September Quarter.

## 5.3 Black Butte Copper Project, USA (Sandfire: 61%)

*Sandfire holds a 61% interest, via North American-listed company Tintina Resources (TSX.V: TAU), in the premier, high-grade Black Butte Copper Project, located in central Montana in the United States. The project is located close to existing road, power and rail infrastructure, with the ability to access a residential workforce located nearby and competitive sources of materials and power. Located on private ranch land, the Black Butte Project copper resource consists of three flat-lying sedimentary hosted copper deposits which have been extensively drilled by Tintina (over 53,000m of diamond drilling).*

*An Updated Technical Report and Preliminary Economic Assessment (PEA) completed by Tintina in July 2013 was based on reported NI 43-101 Measured and Indicated Resources totalling 15.7Mt grading 3.4% Cu, 0.1% Co and 14g/t Ag for 533,600t of contained copper and Inferred Resources totalling 2.3Mt grading 2.8% Cu, 0.09% Co and 14g/t Ag for 63,500t of contained copper (calculated using a 1.6% copper cut-off grade) for the Johnny Lee Upper Zone and Lowry deposits, and a 1.5% Cu cut-off for the Johnny Lee Lower Zone. This makes Black Butte one of the top-10 undeveloped copper projects worldwide by grade.*

*The PEA confirmed that the deposit has the potential to underpin a robust underground mining operation with forecast life-of-mine production of ~30,000tpa of copper-in-concentrate over a mine life of ~11 years, based on total mill throughput of 11.8 million tonnes at an average head grade of 3.1% Cu.*



**Figure 1: The community of White Sulphur Springs, near the Black Butte Copper Project (left); exploration drilling at the main Johnny Lee deposit at Black Butte**

Sandfire and Tintina are committed to ensuring the protection of the pristine natural environment in the surrounding area, with the proposed mine being wholly underground, with no open pit and minimal surface footprint. The underground workings have been designed so that water cannot run out of the mine.

Sandfire views the Black Butte Project as an excellent and complementary strategic fit with its flagship DeGrussa Copper-Gold Project in Western Australia and a key part of its longer term growth pipeline – and will continue to support Tintina both financially and by contributing its project development and operational expertise to assist with the permitting, financing and development of the project.

During the Quarter, Tintina received a third round of response comments from the Montana Department of Environmental Quality (MT DEQ) with regards to its submission in the Complete and Compliant portion of the Black Butte Copper Mine Operating Permit (“MOP”) process.

The MT DEQ has identified a few remaining issues which require clarification and to which the Company has now responded. Once the project has achieved Complete and Compliant status, a draft Mine Operating Permit will be transmitted and the process moves forward to the next step: a full Environmental Impact Study (EIS).

The EIS will be a comprehensive third-party review of the MOP and will result in a Final Record of Decision. In addition, Tintina will be required to attain other permits such as Air Quality, Public Water Supply, and a Montana Pollutant Discharge Elimination System (MPDES). A Clean Water Act 404 permit is currently in process.



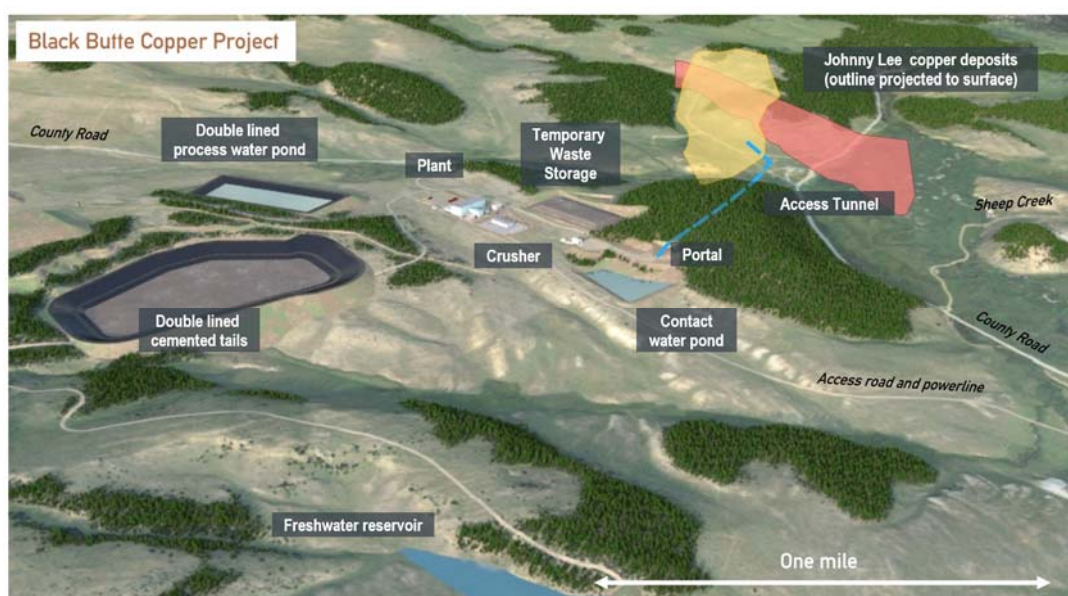


Figure 2: Black Butte Copper Project – Proposed Site Layout

## 6.0 EXPLORATION

### 6.1 Overview

Sandfire continues to progress a tightly focused, multi-disciplinary exploration campaign to test for extensions to the known cluster of VMS deposits at DeGrussa and Monty, and to unlock the broader potential of the Doolgunna region for additional VMS and structurally-hosted copper deposits. Key components of the Company's exploration activity at Doolgunna during the June Quarter included:

- Deep diamond drilling at Monty Deeps to test areas down-dip along strike from Monty and provide deep DHEM coverage.
- RC drilling at the Monty deposit to confirm the current interpretation of the Monty host horizon and infill the DHEM pattern in the area.
- Completion of a single diamond hole to test a highly conductive discrete late-time DHEM anomaly at the Homestead Project.
- Major AC drilling program at the Enterprise Metals farm-in project to aid geological interpretation and provide quality geochemical coverage of the interpreted Karalundi Formation, which hosts the DeGrussa and Monty copper-gold deposits.
- AC drilling at the Red Bore prospect area to provide geological definition over the narrow sediment horizons.

The aggregate exploration metres drilled on Sandfire's wholly-owned and JV tenements during the June 2017 Quarter are summarised below:

Project	AC/RAB Drilling (m)	RC Drilling (m)	UG Diamond Drilling (m)	Surface Diamond Drilling (m)	Total Drilling (m)
Doolgunna (SFR 100%)	6,813	2,019	-	872	9,704
Ned's Creek (SFR 100%)	-	-	-	-	-
Springfield JV (SFR 70%)	10,123	1,907	-	1,940	13,970
Enterprise JV (Earn-in)	48,627	1,945	-	1,570	52,142
<b>TOTAL Q4FY2017</b>	<b>65,563</b>	<b>5,871</b>	<b>6,023</b>	<b>4,382</b>	<b>81,839</b>
<b>TOTAL FY2017</b>	<b>157,133</b>	<b>22,422</b>	<b>11,590</b>	<b>11,501</b>	<b>202,646</b>

### 6.2 Greater Doolgunna

*The Greater Doolgunna Project, which includes the Talisman Joint Venture, the Ned's Creek Project, the Enterprise Metals Farm-in and the Great Western Exploration Farm-in, provides an aggregate contiguous exploration area of 5,846km<sup>2</sup>. This includes over 90km of strike extent in host VMS lithologies. Much of this stratigraphy is obscured beneath transported cover and requires systematic aircore (AC) drilling to test the bedrock geochemistry and identify prospective areas.*

### 6.2.1 Springfield Joint Venture – 70% Sandfire

The Springfield JV Project comprise the Springfield, Halloween and Halloween West Projects, which abut Sandfire's DeGrussa-Doolgunna tenements. The projects are being explored under a Joint Venture agreement with Talisman Mining Limited (ASX: TLM) under which Sandfire has earned 70%. All exploration expenditure at the Talisman Projects is now being jointly funded by Sandfire and Talisman on a 70:30 basis.

Exploration programs planned or currently in progress in the Springfield Joint Venture area include:

- Deep diamond drilling at the Monty deposit targeting potential down-dip and along-strike mineralisation within the same host sediment sequence;
- Ongoing down-hole Electromagnetic (DHEM) surveying of deep RC and DDH holes; and
- Continued systematic AC drilling over the Monty, Monty South and South-Eastern Volcanics Prospect areas.

The discovery of the high-grade Monty deposit bolsters the eastern Bryah Basin as a highly prospective exploration district with excellent potential for additional VMS discoveries.

#### Regional RC and AC Geochemistry Programme

Regional RC and AC drilling continued at the Springfield Project throughout the reporting period. A total of four RC exploration drill holes were completed with a fifth ongoing at the end of the period for an aggregate advance of 1,907m.

Regional aircore drilling comprised a total of 120 holes (TLAC3150 to TLAC3271) for an advance of 10,123m, with drilling focused on the Monty, Monty South and South-Eastern Volcanics Prospect areas.

Geological interpretation is ongoing and will continue through the next reporting period.

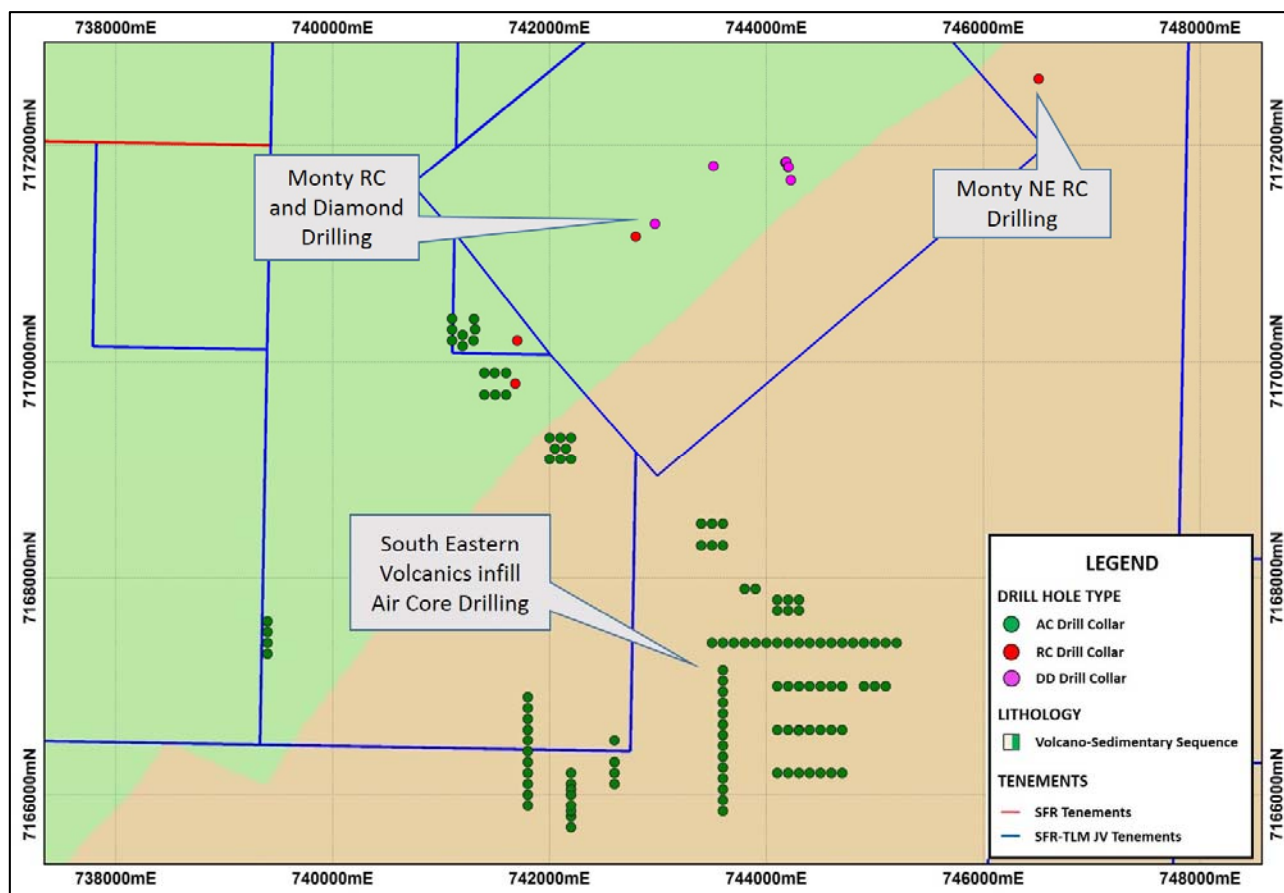


Figure 3: Completed drilling across the SFR-TLM Joint Venture tenements during the Quarter

## Monty

Two diamond holes were completed at the Monty prospect for an aggregate advance of 1,940m. This drilling comprised deep holes targeting potential down-dip and along-strike mineralisation within the same host sediment sequence as the Monty deposit. Both holes were used to close off any potential mineralisation located at depth and provide deep platforms for DHEM surveying.

### 6.2.2 Doolgunna Project – 100% Sandfire

Regional diamond, RC and AC drilling continued at the Doolgunna Project during the June Quarter, focused on the Red Bore East, Homestead and Shed Well prospects. At Red Bore East, drilling was designed to in-fill current gaps in geochemical and DHEM coverage, and test geological modelling of the C5 host horizon along strike from the DeGrussa Mine.

At the Homestead Prospect, exploration diamond drilling was designed to target a DHEM anomaly plate within the Karalundi Formation. Drill holes DGDD415 and DGDD416 intersected the target DHEM plates and hit carbonaceous shale with bedded pyrite and pyrrhotite of the Karalundi Formation. Further work is underway to trace the carbonaceous shale unit within the Homestead Prospect.

At the Shed Well Prospect, four RC holes were completed to target geochemical anomalies and prospective horizons within the Karalundi Formation. All holes intersected interpreted Karalundi Formation and sedimentary packages within DGRC889, DGRC890 and DGRC891 all contained exhalative material. Interpretation is ongoing within the Shed Well Prospect to trace the prospective host packages.

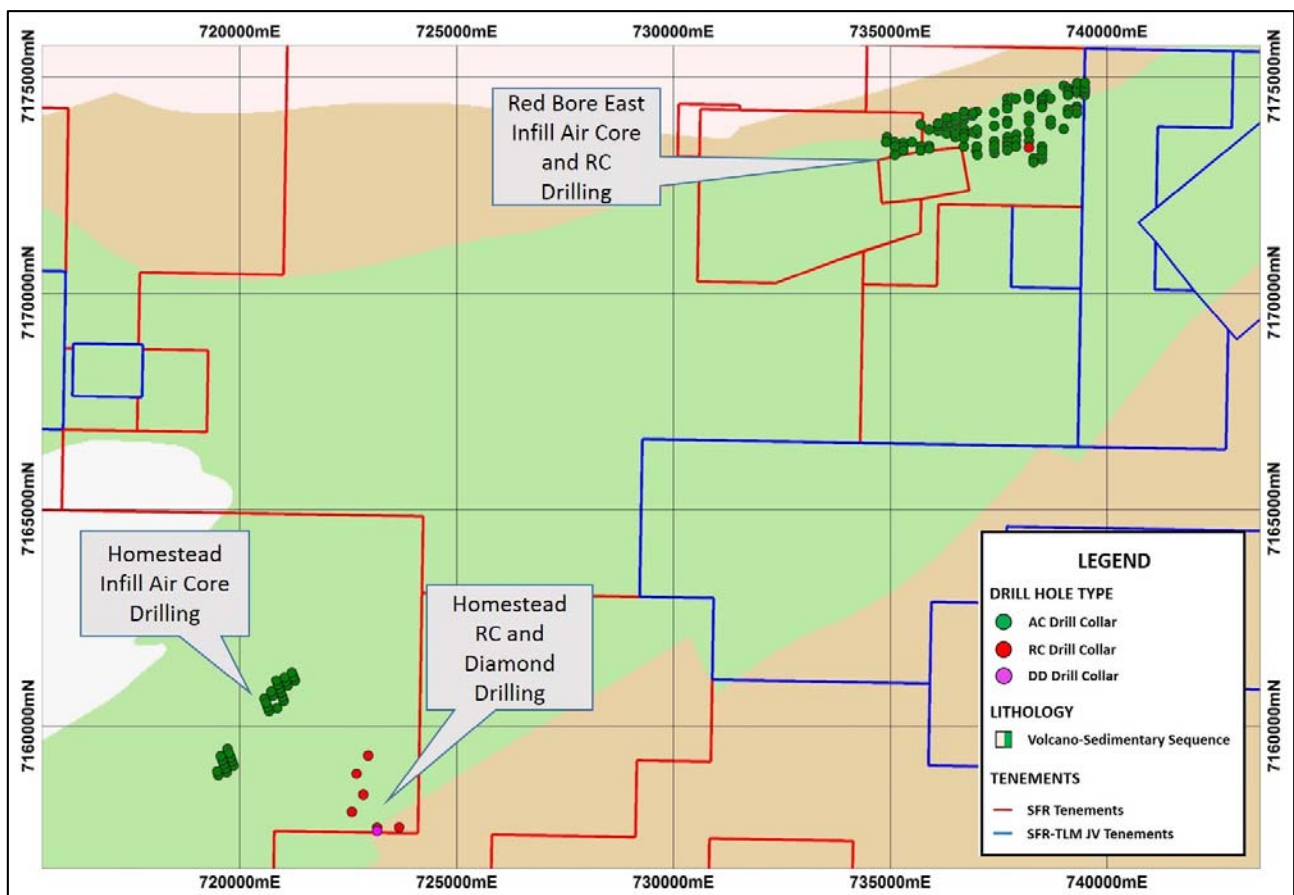


Figure 4: Completed drilling across the SFR Doolgunna tenements during the Quarter.

### 6.2.3 Enterprise Project

Sandfire entered into a Farm-in Agreement with Enterprise Metals Limited (ASX: ENT) in October 2016 to earn up to a 75% interest in Enterprise's Doolgunna Project, which adjoins Sandfire's Doolgunna tenements to the south. The Enterprise tenements cover over 60km of strike of the southern boundary of the Bryah Basin and the northern part of the Yerrida Basin. The southern Bryah Basin contains the Narracoota/Karalundi Formations which host the DeGrussa and Monty copper-gold deposits. The Company considers that the Enterprise tenements offer the potential for new copper-gold discoveries.



A major regional AC exploration drilling program continued at the Vulcan Prospect throughout the reporting period. Drilling consisted of an offset 400m x 100m line and hole spaced grid pattern designed to provide geochemical coverage and aid detailed geological interpretation to be used for further targeting.

583 AC drill holes were completed for a total advance of 48,627m, with the program now nearing completion.

Geological interpretation at the Vulcan Prospect has commenced using data from Sandfire's drilling within the Doolgunna and Springfield Projects, as well as results from the current AC drill programme.

To date, the Vulcan Prospect is considered structurally and geologically complex, with Doolgunna Formation, DeGrussa Footwall and DeGrussa Main, and Sandfire Formations all intersected in AC drilling.

Minor intersections of magnetite and haematite rich, exhalite sediment with disseminated pyrite have been encountered and geological interpretation is underway to track the strike extent of these horizons for further targeting.

Regional diamond and RC drilling also commenced at the Enterprise Project in the June Quarter, focused on the Vulcan and Vulcan West prospects. Assay results from these holes are currently being received and assessed, and further drill planning will proceed with geological interpretation.

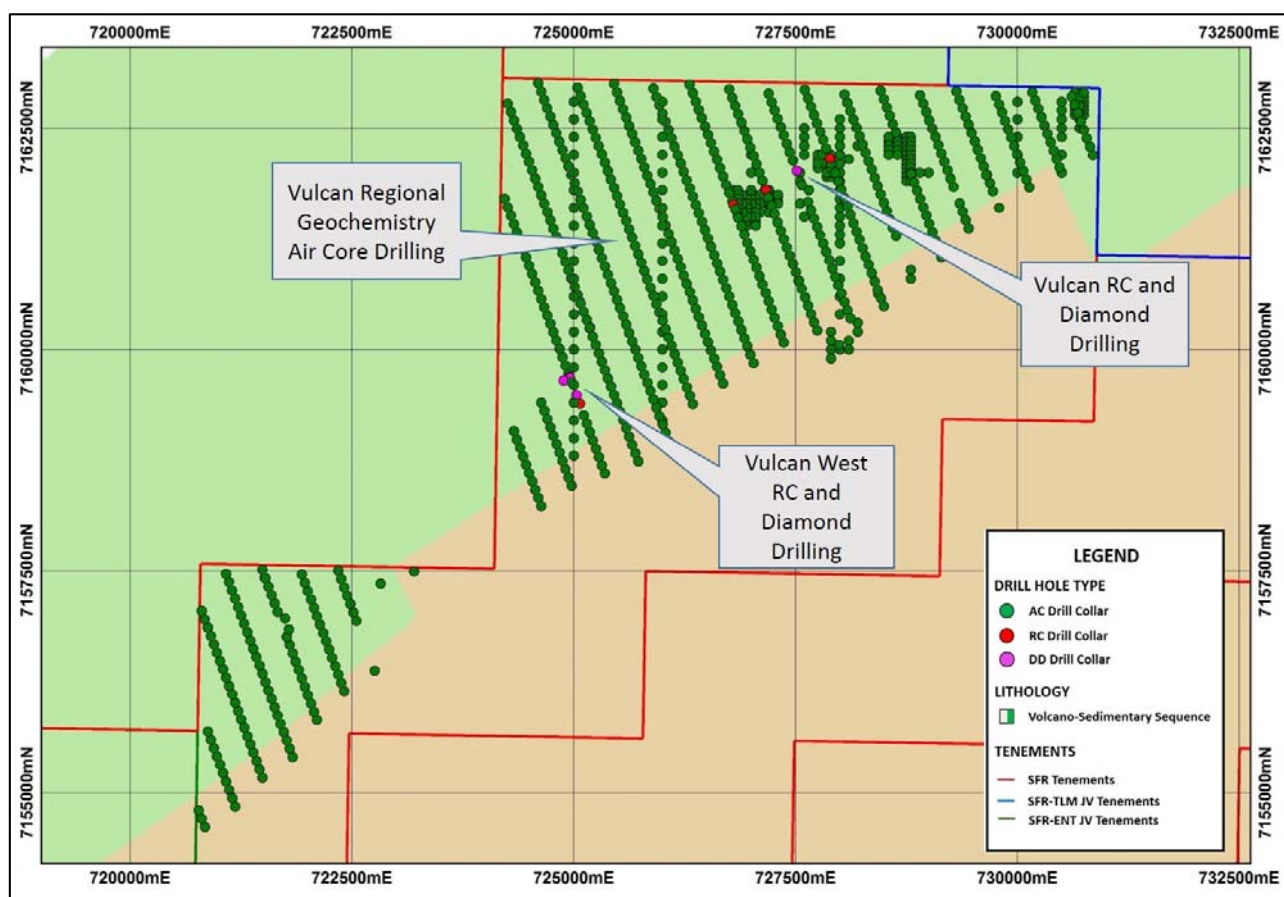


Figure 5: Drilling at the Enterprise Project during the Quarter.

#### 6.2.4 Ned's Creek Project (including Thaduna)

The Ned's Creek Project comprises over 900km<sup>2</sup> of prospective geology and surrounds the historical Thaduna Project, which 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.

No work was undertaken at Ned's Creek during the June Quarter, and no restart is anticipated until later in the year.

## 7.0 AUSTRALIAN EXPLORATION

Sandfire has a number of exploration joint ventures around Australia exploring for base and precious metals. The exploration programs are focused on prospective terranes with the potential for discovery of a significant new deposit that can be developed.

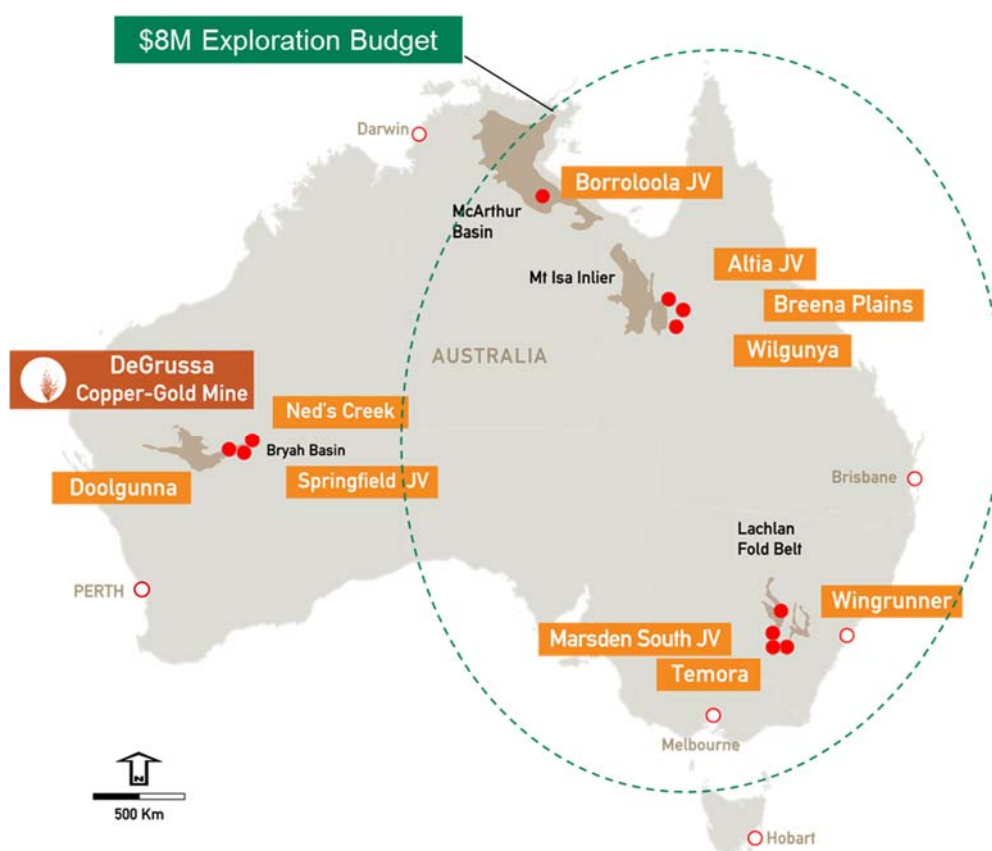


Figure 6: Sandfire's Eastern Australian Projects.

### 7.1 New South Wales Projects

A number of 100%-owned project areas are held in the Lachlan Fold Belt of New South Wales which are prospective for porphyry copper-gold mineralisation as found at Northparkes (China Moly), Cadia (Newcrest) and Cowal (Evolution). A farm-in agreement to earn up to 80% is held with Gold Fields Australasia Pty Ltd on the Marsden South Project.

The Temora Project (Figures 7 and 8 below) has been the focus throughout the Quarter.

#### 7.1.1 Temora Exploration (100% Sandfire)

Exploration at Temora has focused on defining the extent of the newly-discovered Donnington copper-gold mineralisation. To date, eight holes have been completed into the target area, including at the nearby Punch prospect. All holes for which assays have been returned so far have reported mineralisation above 0.3% Cu (see Table 1 below).

The extent of the mineralisation is still being defined and further work is required to understand the size and shape of the higher grade system.

**Table 1: Intercepts from the Donnington Prospect and nearby Punch prospect**

Prospect	Hole Number	Easting (m)	Northing (m)	total depth (m)	azimuth	dip	Depth From (m)	Interval (m)	Cu (%)	Au (g/t)
Donnington	TMMRD006 <i>including</i> <i>and</i>	534602	6218740	460	90	-60	287	125	0.32	0.46
							314	44	0.41	0.62
							364	28	0.39	0.61
	<b>TMMRD010</b>	<b>534598</b>	<b>6218842</b>	<b>451</b>	<b>90</b>	<b>-60</b>	<b>325</b>	<b>2</b>	<b>0.24</b>	<b>0.18</b>
	<b>TMMRD011</b> <i>including</i>	<b>534633</b>	<b>6218638</b>	<b>472</b>	<b>90</b>	<b>-60</b>	<b>349</b>	<b>77</b>	<b>0.44</b>	<b>0.65</b>
							426	24	0.87	1.38
	<b>TMMRD012</b>	<b>534662</b>	<b>6218104</b>	<b>436</b>	<b>90</b>	<b>-61</b>	<b>385</b>	<b>11</b>	<b>0.2</b>	<b>0.21</b>
	<b>TMMRD014</b>	<b>534676</b>	<b>6218582</b>	<b>772</b>	<b>91</b>	<b>-75</b>	<b>395</b>	<b>26</b>	<b>0.19</b>	<b>0.22</b>
							468	34	0.24	0.28
							517	17	0.19	0.25
							<b>540</b>	<b>40</b>	<b>0.26</b>	<b>0.36</b>
							587	34	0.25	0.33
							626 to 772m assays awaited			
	<b>TMMRD015</b> <i>including</i>	<b>534495</b>	<b>6218740</b>	<b>595</b>	<b>91</b>	<b>-61</b>	<b>389</b>	<b>25</b>	<b>0.31</b>	<b>0.48</b>
							398	16	0.36	0.59
							<b>420</b>	<b>12</b>	<b>0.36</b>	<b>0.62</b>
							448 to 595m assays awaited			
	<b>TMMRD016</b>	<b>534730</b>	<b>6218657</b>	<b>508</b>	<b>102</b>	<b>-60</b>	assays awaited			
Punch	MHACD208	534533	6219084	250	90	-60	64	15	0.11	0.32
	<b>TMMRD013</b>	<b>534398</b>	<b>6219141</b>	<b>385</b>	<b>90</b>	<b>-60</b>	196	10	0.17	0.23

Reported Mineralisation at >0.3 % CuEq (Cu x 0.55 Au), including at >0.5 % CuEq with up to 3m internal dilution. Intercepts <10 m excluded  
Hole collars at 236mRL in MGA94 zone 55. Downhole Intervals are not true width. Holes completed this quarter in Bold

The Donnington Prospect is located in Late Ordovician volcanics on the eastern margin of the Rain Hill monzodiorite batholith (see Figure 11). Alteration is associated with the venting of hydrothermal fluids along this batholith margin. The porphyry-style mineralisation is associated with chlorite-sericite-magnetite altered diorites and andesitic volcanics.

Hole TMMRD011 was designed to test the mineralisation previously intersected in hole TMMRD006 and reported in the last Quarterly Report (**125m at 0.32% Cu and 0.46g/t Au**) 100m to the south.

Drilling intersected strong mineralisation within a porphyry-style alteration system. The peak intercept for this hole is **77m @ 0.44% Cu and 0.65g/t Au from 349m** down-hole, including **24m @ 0.87% Cu and 1.38 g/t Au from 426m**.

Hole TMMRD014 tested the area down-dip and to the south of hole TMMRD011, extending the mineralisation to a vertical depth of 700m below surface. The anomalous zone runs from 394m down-hole to the end-of-hole at 771m, with minor barren patches interpreted as late intrusives. Within the assayed portion of this anomalism are four zones, each greater than 25m in width with greater than 0.3% Cu equivalent. The peak is 40m @ 0.26% Cu and 0.35g/t Au from 540m. Assays are awaited from 626m to the bottom of this hole.

Drilling up-dip in hole TMMRD016 has extended the anomalism ~100m vertically above hole TMMRD011 to ~200m below surface. The mineralisation is open both above and below this hole. Logged mineralisation extends over 100m east of the end-of-hole TMMRD011, which was left open and is available to re-enter and continue.

Hole TMMRD015 was drilled below hole TMMRD006 and intersected similar mineralisation styles over 200m down-hole. Assays to date have returned a zone of 25m @ 0.31% Cu, 0.48 g/t Au from 389m including 16m @ 0.36% Cu and 0.59g/t Au from 398m and a further intercept of 12m @ 0.36% Cu and 0.62 g/t Au from 420m. Of the 200m down-hole mineralised zone, assays are still awaited for 94m.

Drilling 100m north of hole TMMRD006 in hole TMMRD010 shows that the mineralisation extends through this area. Similarly, holes drilled at Punch (TMMRD013), 400m to the north, and over 600m south (TMMRD012), give confidence that the mineralised system extends to these areas.

Sandfire is encouraged that the mineralised porphyry system is not closed off in any direction and intends to continue to develop the prospect with further drilling when access is available.

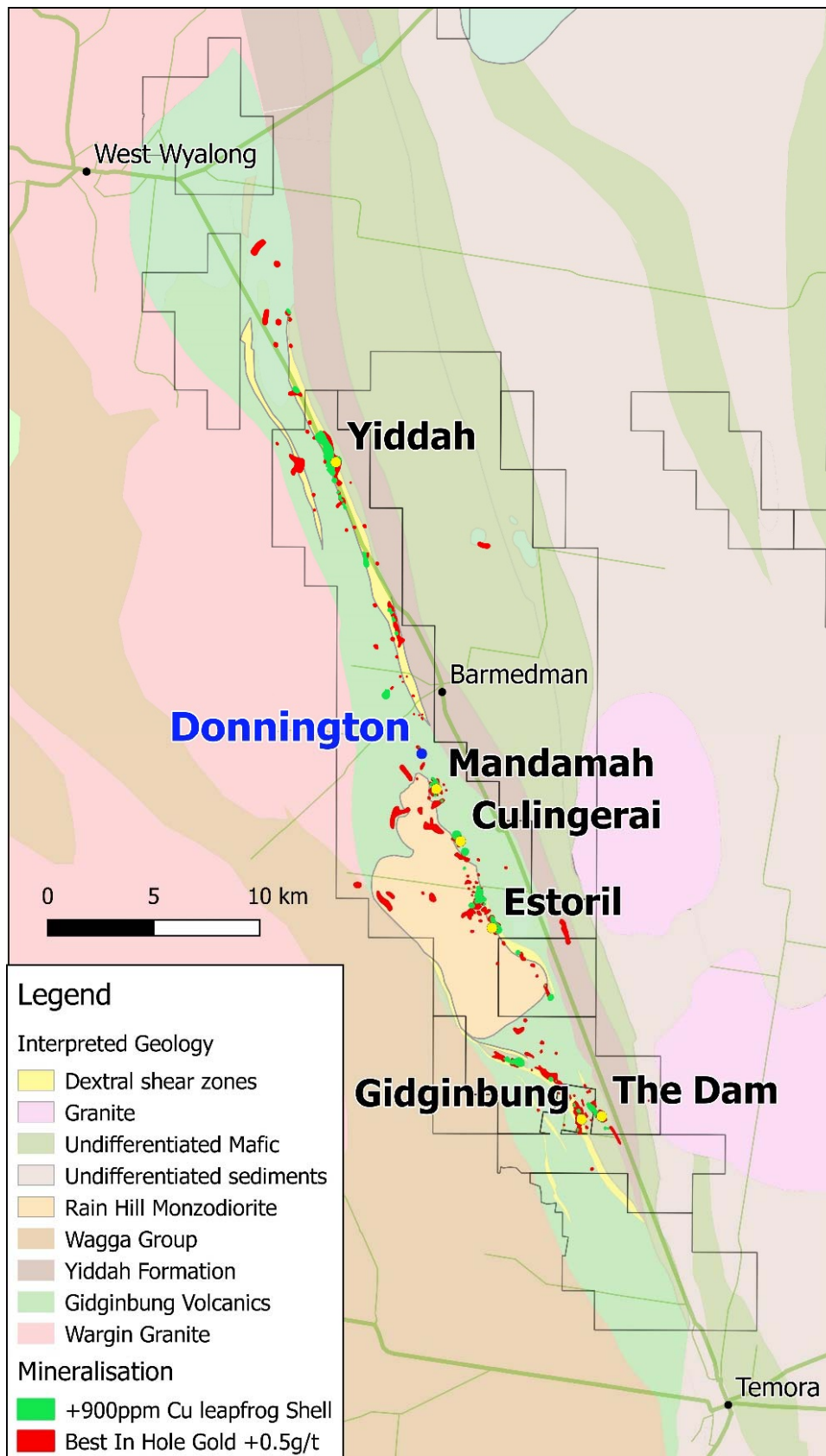


Figure 7: Location of the Donnington prospect in the Temora belt on regional geology and geochemistry.



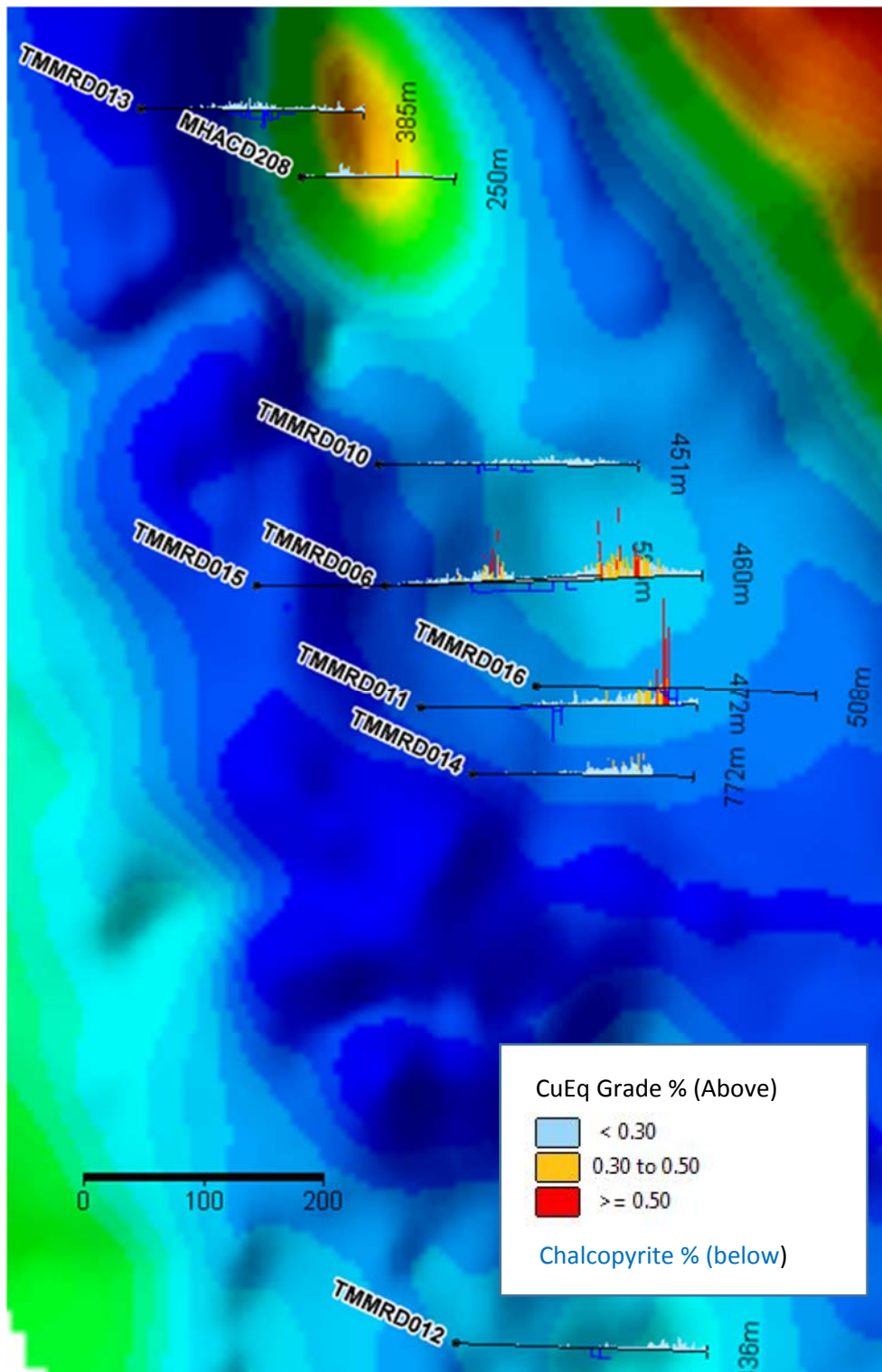


Figure 8: Location of diamond drilling completed at the Donnington and Punch prospects on regional aeromagnetics.

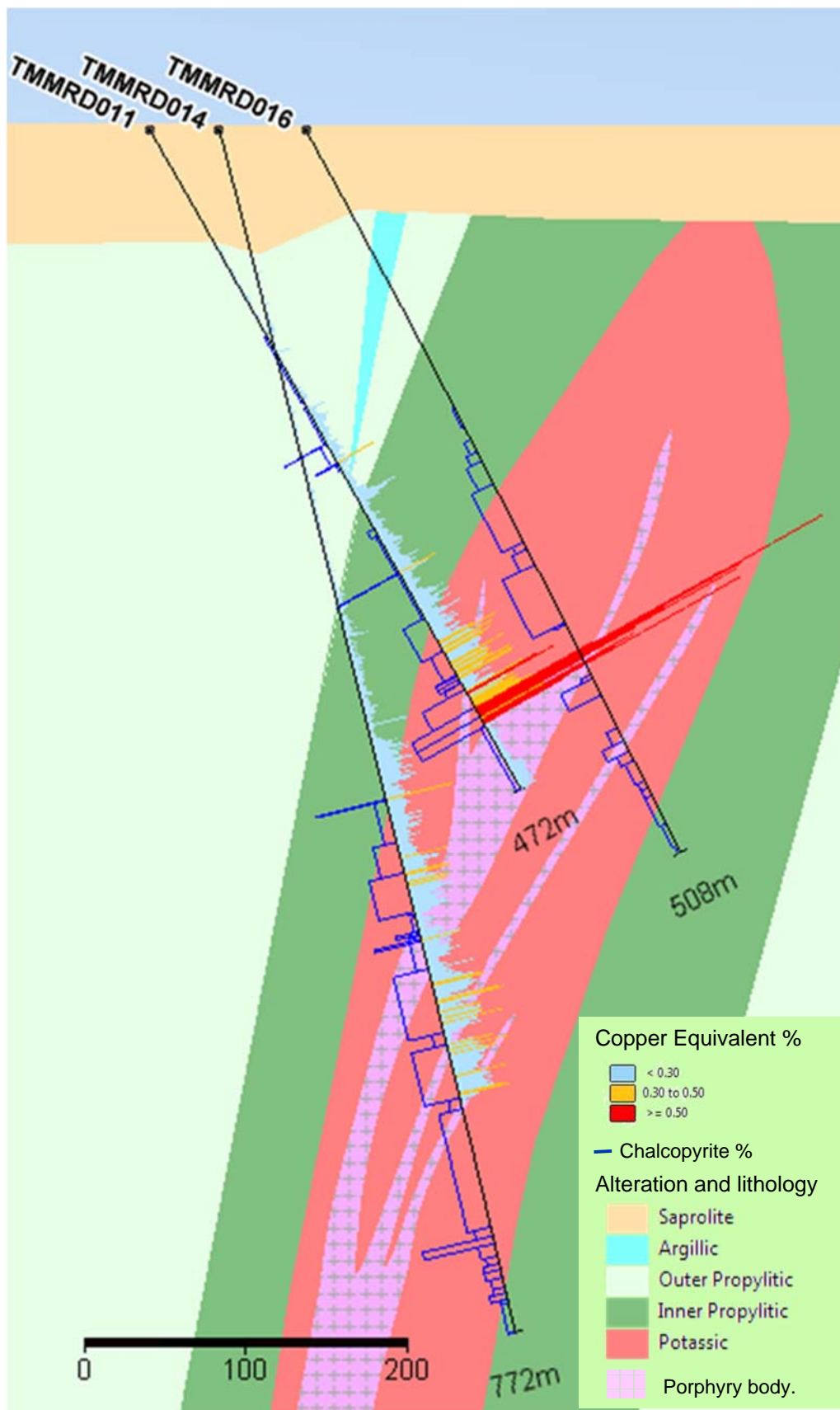


Figure 9: Section 6218640N with interpreted geology and alteration.

### 7.1.2 Wingrunner Exploration

Assay results from diamond drilling at the SE Bogan prospect did not return significant intercepts. Further work on this prospect will be reviewed and prioritised against other areas in NSW.

### 7.1.3 Wellington North

Negotiations continue with land-holders to gain access to the Wellington North project to carry out a program of aircore drilling.

## 7.2 Borroloola Project

*The Borroloola Project is located north of the McArthur River Mine (Xstrata), and is prospective for base metals and sedimentary manganese. Sandfire has signed two farm-out 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, which has now earned a 51% interest in the Project and Sandfire is a contributing 49% JV partner.*

A ground EM survey at the Coppermine Creek (copper-cobalt-silver) prospect within the Borroloola West JV while confirming the shallow dipping nature of the stratigraphy, did not delineate a distinct conductive body within the survey area. Further drilling to confirm the existence of a stratiform poorly conductive copper body is planned in the following quarter. Drill testing of the Berjaya and Mariner Prospects for McArthur style Zn-Pb targets is also planned for that period

A review of the recent airborne gravity survey and existing drilling at Rosie Creek in the Batten Trough JV, by MMG Exploration led to an extension of the interpreted Barney Creek formation to the south of that prospect. This newly identified area will be targeted with further diamond drilling in the 2017 field season.

## 7.3 Queensland Projects

*A number of projects are held in the eastern succession of the Mount Isa region south and east of Cloncurry in northwest Queensland which are prospective for Broken Hill type (BHT) lead-zinc-silver deposits such as the Cannington deposit (South 32) and the Ernest Henry iron oxide-copper-gold (IOCG) deposits (Xstrata). A Joint Venture is held over the Altia project with Minotaur Exploration Ltd (ASX: MEP) with the right to earn 80%.*

The prospectivity of the Cannington West Project for BHT mineralisation, has been under review with several new targets emerging following an in-depth data compilation. The intent is to fully define these targets and test them within the current field season.

Further testing for IOCG-style copper-gold mineralisation is planned at the Kennedy Project

During the Quarter, several drill-ready targets have been identified at the Ionised, Strathfield and Breena Plains Projects. Cultural heritage surveys have been completed for the high priority targets and drilling is set to commence in the coming Quarter

## 8.0 CORPORATE

### 8.1 Farm-in Agreement with Great Western Exploration

During the Quarter, all conditions precedent relating to the Farm-In Letter Agreement signed with Great Western Exploration Limited (ASX: GTE), announced on 12 April 2017, were met and the JV settlement was completed.

Under the Agreement, Sandfire can earn an initial 70% interest in GTE's northern Yerrida tenements by paying \$500,000 in Sandfire shares, committing to a minimum exploration spend of \$1.7 million and sole funding exploration until the delineation of 50,000 tonnes or more of in-ground copper resources.

The shares were issued during the Quarter and Sandfire can now commence work on the JV.

## 8.2 Cash position

Company cash on hand as at 30 June 2017 totalled \$124 million. Group cash on hand as at 30 June 2017 totalled \$127 million.

## 8.3 Investor Call and Webcast

A teleconference on the Quarterly results will be held for the investment community on 28 July 2017 commencing at 10.00am (AWST) / 12.00pm (AEST). Investors, brokers, analysts and media can join the teleconference by dialling the following numbers:



<b>Within Australia (Toll Free):</b>	<b>1 800 558 698</b>
<b>Alternate Australia Toll Free:</b>	<b>1 800 809 971</b>
<b>International:</b>	<b>+61-2 9007 3187</b>
<b>Conference ID:</b>	<b>345939</b>

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

A live webcast of the teleconference and synchronised slide presentation will also be available via the BRR Media service by clicking [here](#).

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

**ENDS**

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### **Competent Person's Statement – Exploration Results Doolgunna**

The information in this report that relates to Exploration Results at Doolgunna 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.

### **Competent Person's Statement – Exploration Results Temora**

The information in this report that relates to Exploration Results at Temora is based on information compiled by Mr Bruce Hooper who is a Registered Professional Geoscientist (RPGeo) of The Australian Institute of Geoscientists. Mr Hooper 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 Hooper consents to the inclusion in the report of the matters based on his information in the form and context in which it appears.

### **Competent Person's Statement – Mineral Resources**

The information in this report that relates to Mineral Resources is based on information compiled by Mr Ekow Taylor who is a Member of The Australasian Institute of Mining and Metallurgy. Mr Taylor is a permanent employee of Sandfire Resources NL and has sufficient experience that is relevant to the style of mineralisation 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 Taylor consents to the inclusion in the report of the matters based on his information in the form and context in which it appears.

### **Competent Person's Statement – Ore Reserves**

The information in this report that relates to Ore Reserves is based on information compiled by Mr Neil Hastings who is a Member of The Australasian Institute of Mining and Metallurgy. Mr Hastings is a permanent employee of Sandfire Resources NL and has sufficient experience that is relevant to the style of mineralisation 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 Hastings 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.

## 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 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/cm<sup>3</sup> to 4.9g/cm<sup>3</sup>, with an average density reading of 3.7g/cm<sup>3</sup>. 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 reevaluated 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 Doolgunna 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 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. 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.

## JORC 2012 TABLE 1 – EXPLORATION RESULTS TEMORA

### Section 1: Sampling Techniques and Data

Criteria	JORC Code Explanation	Commentary
Sampling techniques	<ul style="list-style-type: none"> <li>Nature and quality of sampling (e.g. 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.</li> </ul>	<ul style="list-style-type: none"> <li>Sampling method is half-core sampling of NQ3 or HQ3 core diamond drilling (DD).</li> <li>For RC drilling, samples are rifle split on a 1 metre basis to retain an approximate 3-4kg sample.</li> </ul>
	<ul style="list-style-type: none"> <li>Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used.</li> </ul>	<ul style="list-style-type: none"> <li>Sampling is guided by Sandfire protocols as per industry standard.</li> </ul>
	<ul style="list-style-type: none"> <li>Aspects of the determination of mineralisation that are Material to the Public Report.</li> <li>In cases where 'industry standard' work has been done this would be relatively simple (e.g. '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 (e.g. submarine nodules) may warrant disclosure of detailed information.</li> </ul>	<ul style="list-style-type: none"> <li>Sample size reduction is through a Jaques jaw crusher to -10mm and all samples Boyd crushed to -4mm and pulverised via LM5 to nominal 90% passing -75µm using wet sieving technique.</li> <li>Samples are assayed using Mixed 4 Acid Digest (MAD) 0.3g charge and MAD Hotbox 0.15g charge methods with ICPOES or ICPMS.</li> <li>Fire Assay is completed by firing 40g portion of the sample with ICPMS finish.</li> </ul>
Drilling techniques	<ul style="list-style-type: none"> <li>Drill type (e.g. core, reverse circulation, open-hole hammer, rotary air blast, auger, Bangka, sonic, etc.) and details (e.g. 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.).</li> </ul>	<ul style="list-style-type: none"> <li>DD is completed using NQ3 and HQ3 size coring equipment. With a Mud rotary (MR), AC, RC or combination precollar to a maximum depth of 200m. AC drilling is completed to blade refusal, usually ~70m. RC drilling is conducted with a 140mm diameter face sampling hammer.</li> <li>All 2017 drill collars are located using a differential gps receiver.</li> <li>All core where possible is oriented using a gyroscope based orientation tool.</li> <li>Downhole surveying is undertaken using a magnetic single or multi shot survey instrument. Holes numbered TMMRD011 and higher were surveyed with downhole gyro for greater accuracy.</li> </ul>
Drill sample recovery	<ul style="list-style-type: none"> <li>Method of recording and assessing core and chip sample recoveries and results assessed.</li> </ul>	<ul style="list-style-type: none"> <li>Diamond core recovery is logged and captured into the database. Core recoveries are measured by drillers for every drill run. The core length recovered is physically measured for each run and recorded and used to calculate the core recovery as a percentage core recovered.</li> </ul>
	<ul style="list-style-type: none"> <li>Measures taken to maximise sample recovery and ensure representative nature of the samples.</li> </ul>	<ul style="list-style-type: none"> <li>Appropriate measures are taken to maximise sample recovery and ensure the representative nature of the samples. This includes diamond core being reconstructed into continuous intervals on angle iron racks for orientation, metre marking and reconciled against core block markers.</li> <li>In broken ground core is transferred from the HQ3 splits to PVC pipe then wrapped in plastic fil, to maintain sample integrity.</li> <li>Samples are routinely captured into the central secured database.</li> </ul>
	<ul style="list-style-type: none"> <li>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.</li> </ul>	<ul style="list-style-type: none"> <li>No sample recovery issues have impacted on potential sample bias.</li> </ul>
Logging	<ul style="list-style-type: none"> <li>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.</li> </ul>	<ul style="list-style-type: none"> <li>Geological logging is completed for all holes and representative across the orebody. The lithology, alteration and structural characteristics of core are logged directly to a digital format following procedures and using Sandfire NL geologic codes. Data is imported into Sandfire NL's central database after validation in LogChief™.</li> </ul>

Criteria	JORC Code Explanation	Commentary
	<ul style="list-style-type: none"> <li>Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc.) photography.</li> </ul>	<ul style="list-style-type: none"> <li>Logging is both qualitative and quantitative depending on field being logged.</li> <li>All cores are photographed.</li> </ul>
	<ul style="list-style-type: none"> <li>The total length and percentage of the relevant intersections logged.</li> </ul>	<ul style="list-style-type: none"> <li>All drillholes are fully logged.</li> </ul>
Sub-sampling techniques and sample preparation	<ul style="list-style-type: none"> <li>If core, whether cut or sawn and whether quarter, half or all core taken.</li> </ul>	<ul style="list-style-type: none"> <li>Core orientations are completed where possible and all are marked prior to sampling. Half core samples are produced using an automated core saw. Samples.</li> </ul>
	<ul style="list-style-type: none"> <li>If non-core, whether riffled, tube sampled, rotary split, etc. and whether sampled wet or dry.</li> </ul>	<ul style="list-style-type: none"> <li>All samples are half-core.</li> </ul>
	<ul style="list-style-type: none"> <li>For all sample types, the nature, quality and appropriateness of the sample preparation technique.</li> </ul>	<ul style="list-style-type: none"> <li>All samples are sorted, and weighed. Samples are then crushed to a nominal -4 - 8 mm. Pulverising is completed using LM5 mill to 85% passing 75µm using wet sieving technique.</li> </ul>
	<ul style="list-style-type: none"> <li>Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples.</li> </ul>	<ul style="list-style-type: none"> <li>1:20 grind quality checks are completed for 90% passing 75µm criteria to ensure representativeness of sub-samples.</li> </ul>
	<ul style="list-style-type: none"> <li>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.</li> </ul>	<ul style="list-style-type: none"> <li>Sampling is carried out in accordance with Sandfire protocols as per industry best practice.</li> <li>Quarter core field duplicates are taken every 20 samples.</li> </ul>
	<ul style="list-style-type: none"> <li>Whether sample sizes are appropriate to the grain size of the material being sampled</li> </ul>	<ul style="list-style-type: none"> <li>The sample sizes are considered appropriate for the Porphyry Copper and Gold as well as epithermal mineralisation types.</li> </ul>
Quality of assay data and laboratory tests	<ul style="list-style-type: none"> <li>The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total.</li> </ul>	<ul style="list-style-type: none"> <li>Samples are assayed using Mixed 4 Acid Digest (MAD) 0.25g 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 Ag, Al, As, Ba, Be, Bi, Ca, Cd, Ce, Co, Cr, Cs, Cu, Fe, Ga, Ge, Hf, In, K, La, Li, Mg, Mn, Mo, Na, Nb, Ni, P, Pb, Rb, Re, S, Sb, Sc, Se, Sn, Sr, Ta, Te, Th, Ti, Tl, U, V, W, Y, Zn and Zr</li> <li>Samples are analysed for Au by firing a 30g sample with an ICP AES/MS finish. This is a classical FA process and results in total separation of Au in the samples.</li> <li>The analytical methods are considered appropriate for this mineralisation styles.</li> </ul>
	<ul style="list-style-type: none"> <li>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.</li> </ul>	<ul style="list-style-type: none"> <li>No geophysical tools are used in the analysis.</li> </ul>
	<ul style="list-style-type: none"> <li>Nature of quality control procedures adopted (e.g. standards, blanks, duplicates, external laboratory checks) and whether acceptable levels of accuracy (i.e. lack of bias) and precision have been established.</li> </ul>	<ul style="list-style-type: none"> <li>Sandfire's 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.</li> </ul>
Verification of sampling and assaying	<ul style="list-style-type: none"> <li>The verification of significant intersections by either independent or alternative company personnel.</li> </ul>	<ul style="list-style-type: none"> <li>Significant intersections have been verified by alternative company personnel.</li> </ul>
	<ul style="list-style-type: none"> <li>The use of twinned holes.</li> </ul>	<ul style="list-style-type: none"> <li>None of the drillholes in this report is twinned.</li> </ul>
	<ul style="list-style-type: none"> <li>Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.</li> </ul>	<ul style="list-style-type: none"> <li>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.</li> </ul>
	<ul style="list-style-type: none"> <li>Discuss any adjustment to assay data.</li> </ul>	<ul style="list-style-type: none"> <li>The primary data is always kept and is never replaced by adjusted or interpreted data.</li> </ul>

Criteria	JORC Code Explanation	Commentary
Location of data points	<ul style="list-style-type: none"> <li>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.</li> </ul>	<ul style="list-style-type: none"> <li>All drill collars are located using a DGPS system with sub 1m accuracy.</li> <li>Downhole survey are completed by downhole magnetic single shot or multishot methods at regular intervals.</li> <li>All diamond holes labelled TMMRCD011 and above have been downhole surveyed with a MEMS gyroscopic system by the drill contractor on 10m spacings for improved accuracy.</li> </ul>
	<ul style="list-style-type: none"> <li>Specification of the grid system used.</li> </ul>	<ul style="list-style-type: none"> <li>Coordinate and azimuth are reported in MGA 94 Zone 55.</li> </ul>
	<ul style="list-style-type: none"> <li>Quality and adequacy of topographic control.</li> </ul>	<ul style="list-style-type: none"> <li>Topographic control was established from dgps readings.</li> </ul>
Data spacing and distribution	<ul style="list-style-type: none"> <li>Data spacing for reporting of Exploration Results.</li> </ul>	<ul style="list-style-type: none"> <li>Drillholes are spaced at a maximum density 80m x 80m to intersect this mineralisation.</li> </ul>
	<ul style="list-style-type: none"> <li>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.</li> </ul>	<ul style="list-style-type: none"> <li>No resource classification is applied to these results given the early stage of exploration.</li> </ul>
	<ul style="list-style-type: none"> <li>Whether sample compositing has been applied.</li> </ul>	<ul style="list-style-type: none"> <li>No sample compositing have been applied to the Exploration Results.</li> </ul>
Orientation of data in relation to geological structure	<ul style="list-style-type: none"> <li>Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type.</li> </ul>	<ul style="list-style-type: none"> <li>Drillholes were designed to intersect the geological features at a high angle. The drillholes may not necessarily be perpendicular to the orientation on the intersected mineralisation.</li> </ul>
	<ul style="list-style-type: none"> <li>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.</li> </ul>	<ul style="list-style-type: none"> <li>No significant orientation based sampling bias is known at this time. The drillholes may not necessarily be perpendicular to the orientation of the intersected mineralisation. All reported intervals are downhole intervals not true widths.</li> </ul>
Sample security	<ul style="list-style-type: none"> <li>The measures taken to ensure sample security.</li> </ul>	<ul style="list-style-type: none"> <li>Appropriate security measures are taken to dispatch samples to the laboratory. Chain of custody of samples is being managed by Sandfire Resources NL. Samples are stored onsite and transported to laboratory by Sandfire employees or a licence transport company in sealed bulka bags. The laboratory receipts received samples against the sample dispatch documents and issues a reconciliation report for every sample batch.</li> </ul>
Audits or reviews	<ul style="list-style-type: none"> <li>The results of any audits or reviews of sampling techniques and data.</li> </ul>	<ul style="list-style-type: none"> <li>No external audits or reviews of the sampling techniques and data have been completed.</li> </ul>



## Section 2: Reporting of Exploration Results

Criteria	JORC Code Explanation	Commentary
Mineral tenement and land tenure status	<ul style="list-style-type: none"> <li>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.</li> </ul>	<ul style="list-style-type: none"> <li>The Temora project encompasses EI5864, EL6845, EL8397, EL8292 and EL8025 which are wholly owned by Sandfire Resources Limited, with no known third party encumbrances.</li> </ul>
	<ul style="list-style-type: none"> <li>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.</li> </ul>	<ul style="list-style-type: none"> <li>All tenements are current and in good standing.</li> </ul>
Exploration done by other parties	<ul style="list-style-type: none"> <li>Acknowledgment and appraisal of exploration by other parties.</li> </ul>	<ul style="list-style-type: none"> <li>Aside from Sandfire Resources Limited there has been no recent exploration undertaken on the Temora Project.</li> <li>Exploration work completed prior to Sandfire's tenure included AC, RC and Diamond drilling throughout the project. Significant geophysical surveys including IP, Magnetic, EM and gravity Surveys have been completed throughout the history of the tenure by multiple parties. Only AC drilling has previously been completed at the Donnington Prospect.</li> </ul>
Geology	<ul style="list-style-type: none"> <li>Deposit type, geological setting and style of mineralisation.</li> </ul>	<ul style="list-style-type: none"> <li>The Temora Project lies within the Ordovician Macquarie Island Arc, which is historically highly prospective for Porphyry copper gold deposits and epithermal gold.</li> <li>The principal exploration targets at the Temora project is a porphyry copper gold system within the Macquarie Arc in NSW.</li> </ul>
Drill hole information	<p>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:</p> <ul style="list-style-type: none"> <li>easting and northing of the drill hole collar;</li> <li>elevation or RL (Reduced Level – elevation above sea level in metres);</li> <li>of the drill hole collar;</li> <li>dip and azimuth of the hole;</li> <li>down hole length and interception depth; and</li> <li>hole length.</li> </ul> <p>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.</p>	<ul style="list-style-type: none"> <li>Refer to Table 1 of this accompanying document.</li> </ul>
Data aggregation methods	<ul style="list-style-type: none"> <li>In reporting Exploration Results, weighting averaging techniques, maximum and/or minimum grade truncations (e.g. cutting of high grades) and cut-off grades are usually Material and should be stated.</li> </ul>	<ul style="list-style-type: none"> <li>Significant intersections are based on standard intercept of greater than 0.3% Cu equivalent (CuEq) and a high grade intercept of greater than 0.5% CuEq. Intercepts may include up to a maximum of 3.0m of consecutive dilution, with a minimum composite grade of 0.3% Cu.</li> <li>CuEq is based on the formula <math>CuEq = Cu\% + 0.55 * Au \text{ g/t}</math>. The underlying values for this are: <ul style="list-style-type: none"> <li>A copper price of A\$3.53/lb and a Cu recovery of 90%</li> <li>A gold price of A\$1,600/Oz and a recovery of 0.75%</li> </ul> </li> <li>The formula is <math>CuEq = Cu\% + \frac{Au \text{ price}/31.1035 * Au \text{ recovery}}{Cu \text{ price} * 22.04} * Au \text{ g/t}</math></li> </ul>
	<ul style="list-style-type: none"> <li>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.</li> </ul>	<ul style="list-style-type: none"> <li>Reported intersections are based on a regular sample intervals of 1m in regular drilling subject to location of geological boundaries.</li> <li>Minimum and maximum sample intervals used for intersection calculation are 0.3m and 1.2m respectively.</li> </ul>

Criteria	JORC Code Explanation	Commentary
Relationship between mineralisation widths and intercept lengths	<ul style="list-style-type: none"> <li><i>The assumptions used for any reporting of metal equivalent values should be clearly stated.</i></li> </ul>	<ul style="list-style-type: none"> <li>No metal equivalents are used in the intersection calculation.</li> <li>Where core loss occurs; the average length-weighted grade of the two adjacent samples are attributed to the interval for the purpose of calculating the intersection. The maximum interval of missing core which can be incorporated with the reported intersection is 1m.</li> </ul>
	<ul style="list-style-type: none"> <li><i>These relationships are particularly important in the reporting of Exploration Results.</i></li> </ul>	<ul style="list-style-type: none"> <li>Downhole intercepts of mineralisation reported in this release are from drillholes orientated at a high angle to the predicted mineralisation dip. The drillholes may not necessarily be perpendicular to the mineralised zone. All widths reported are downhole intervals.</li> </ul>
	<ul style="list-style-type: none"> <li><i>If the geometry of the mineralisation with respect to the drill-hole angle is known, its nature should be reported.</i></li> </ul>	<ul style="list-style-type: none"> <li>The geometry of the mineralisation, relative to the drillhole, is unknown at this stage.</li> </ul>
	<ul style="list-style-type: none"> <li><i>If it is not known and only the down hole lengths are reported, there should be a clear statement to this effect (e.g. 'down hole length, true width not known').</i></li> </ul>	<ul style="list-style-type: none"> <li>All intersections reported in this release are downhole intervals. True widths are not known.</li> </ul>
Diagrams	<ul style="list-style-type: none"> <li><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></li> </ul>	<ul style="list-style-type: none"> <li>Appropriate maps are included within the body of the accompanying document.</li> </ul>
Balanced reporting	<ul style="list-style-type: none"> <li><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></li> </ul>	<ul style="list-style-type: none"> <li>The accompanying document is considered to represent a balanced report.</li> </ul>
Other substantive exploration data	<ul style="list-style-type: none"> <li><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></li> </ul>	<ul style="list-style-type: none"> <li>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.</li> </ul>
Further work	<ul style="list-style-type: none"> <li><i>The nature and scale of planned further work (e.g. tests for lateral extensions or depth extensions or large-scale step-out drilling).</i></li> <li><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></li> </ul>	<ul style="list-style-type: none"> <li>Further work is planned to define the extent of the discovery. Further step outs will be completed on an 80m grid basis to identify the extent of the mineralisation.</li> </ul>