



SUBSTANTIAL INCREASE IN DEGRUSSA RESOURCE AHEAD OF MINING LEASE GRANT

DEGRUSSA METAL INVENTORY INCREASES TO 644,000t COPPER, 724,000oz GOLD

HIGHLIGHTS

- Updated Measured and Indicated Resource of **3.6Mt @ 1.2% copper and 0.5g/t gold** estimated for the near-surface oxide copper mineralisation within the DeGrussa open pit:
 - **containing 44,000t of copper and 57,000oz of gold**
 - **more than five-fold increase in contained copper over the previous oxide copper resource estimate**
- Oxide copper resource and a new lateritic gold resource increases the overall metal inventory at DeGrussa to **644,000 tonnes of copper** and **724,000 ounces** of gold
- Metallurgical test work well advanced on **treatment options for the oxide copper**, which is likely to be extracted by vat or heap leach methods in the early stages of the DeGrussa operation, together with the mining of approximately **151,000 tonnes of direct shipping material grading 25.6% Cu and 2.6g/t Au**
- **Granting of the Mining Lease** for the DeGrussa Project imminent following receipt of a **Notice of Intention to Grant** from the Department of Minerals and Petroleum and signing of a key **Land Access Agreement** with the Yugunga Nya Native Title claimant group
- **Project Management and Design of Early Works Contract** awarded to WA-based engineering company Mintrex, paving the way for commencement of construction and pre-stripping of the open pit in Q2 of 2011*

Sandfire Resources NL (ASX: **SFR**; "Sandfire") is pleased to report that it is on track to commence construction and development of its 100%-owned **DeGrussa Copper-Gold Project** in WA in the first half of next year after reporting a substantial increase in the near-surface oxide copper resource, receiving a Notice of Intention to Grant the Mining Lease for the Project and awarding a key development contract.

These significant developments position the Company to advance rapidly and seamlessly towards development and mining at DeGrussa next year.

Increase in Oxide Copper Resource

Since the announcement of the Phase III resource (**10.67Mt grading 5.6% Cu, 1.9g/t Au and 15g/t Ag**) in September, Sandfire has completed an in-fill Reverse Circulation drilling program on a 20m by 20m spacing to more accurately quantify the oxide copper mineralisation within the proposed open pit, including a "dispersion" plume away from the top of the primary sulphide lodes (*see Figure 2 attached*).

**Note: All references in this release are to calendar years (CY) and calendar quarters*



The updated oxide copper resource, which was prepared by Perth-based independent consultants McDonald Speijers based on a 0.25% Cu cut-off grade, now comprises a Measured and Indicated Resource of **3.6 million tonnes grading 1.2% copper and 0.5g/t gold** which is estimated to contain **44,000t of copper metal and 57,000oz of gold**.

This represents a substantial increase compared with the DeGrussa oxide copper resource reported as part of the Phase III resource announcement of 100,000 tonnes grading 8.8g/t copper, 2.2g/t gold and 11g/t silver containing an estimated 8,000 tonnes of contained copper, 7,000 ounces of gold and 33,000 ounces of silver (*see ASX Announcement of 3 September 2010 – “DeGrussa Resource Jumps to 600,000t of Copper”*).

Metallurgical test work including bottle roll tests is already well advanced to investigate potential treatment options for this oxide material, which is likely to be processed using heap leach or vat leach methods. Further information will be provided once results are received from this testwork.

The initial open pit (*see Figure 2*) is planned to extend to a depth of approximately 140m below surface and will extract the oxide copper material, the previously quantified direct shipping chalcocite material (151,000 tonnes @ 25.6% Cu, 2.6g/t Au and 21g/t) as well as approximately 500,000 tonnes of massive sulphide copper mineralisation to be stockpiled as early mill feed for the concentrator.

In addition, McDonald Speijers has estimated a Measured Resource of **140,000 tonnes grading 1.5g/t gold** containing 7,000 ounces of gold in a zone of near-surface auriferous laterite located above the oxide copper and primary sulphide resources (*shown in yellow on Figure 2 attached*).

With the exception of these two components, a review of the overall DeGrussa JORC Mineral Resource undertaken by McDonald Speijers has not resulted in any other material changes from the previously reported Phase III Measured, Indicated and Inferred Resource as reported on 3 September 2010 of **10.67Mt grading 5.6% copper, 1.9g/t gold and 15g/t silver for 600,000 tonnes of contained copper, 660,000 ounces of gold and 5.06 million ounces of silver**.

However, the increase in the oxide copper resource has resulted in a net increase in the overall metal inventory at DeGrussa to **644,000 tonnes of copper and 724,000 ounces of gold**. The oxide copper material and lateritic gold will be recovered in the first two years of the operation and represents a net addition to the DeGrussa mining inventory.

Notice of Intention to Grant Mining Lease

Sandfire has received a Notice of Intention to grant the DeGrussa Mining Lease M52/1046 from the Western Australian Department of Minerals and Petroleum. The Mining Lease covers all four VMS copper deposits discovered to date as well as the proposed 1.5Mtpa treatment facility, accommodation village and other supporting infrastructure.

The grant of the Mining Lease is expected to be effected shortly by the Western Australian Minister for Mines and Petroleum, marking a significant step towards development and production at DeGrussa. The imminent granting of the Mining Lease follows extensive discussions and negotiations and the recent signing of a Land Access Agreement with the Yugunga Nya Native Title claimant group.

The grant of the Mining Lease will allow the Company to proceed with its various environmental approval applications which have been in preparation for several months. Consultation with officers of the Department of Minerals and Petroleum and other departments has not indicated any barriers to those approvals being granted in due course and on schedule.

In the immediate term, the Department will be asked to rapidly assess a submission for the Company's construction and permanent accommodation facility on site so that this important work can proceed early in 2011. Sandfire has recently awarded a Project Management and Design of Early Works Contract for the DeGrussa Project to Mintrex, a Western Australian-based engineering company.

These early works include:

- *Infrastructure for construction*
- *Access roads*
- *Plant site bulk earthworks*
- *Concrete supply*
- *Preparation of tenders for construction of the plant and airstrip*
- *Submission of tenders for long-lead equipment items to key suppliers*

These activities will ensure that, at the conclusion of the Definitive Feasibility Study (DFS) for the DeGrussa Project in the first Quarter (Q1) of 2011, the project development will be in a position to proceed to full construction, subject to finance, without delay. Sandfire's development timetable envisages completion of DFS in Q1 of 2011, commencement of the open pit pre-strip, plant construction and underground development in Q2 and commencement of Direct Shipping Material ("DSO") production in Q4 of 2011.

Sandfire's Managing Director, Mr Karl Simich, said the expected grant of the Mining Lease represented a major milestone for the Company, coming just 18 months after the discovery of the high-grade DeGrussa Project.

"This is a fantastic outcome which reflects the focus, determination and resolve with which we are approaching the development of the DeGrussa Project," Mr Simich said. *"We have taken the Project rapidly to a stage where development is poised to commence early next year, and we are now in a very strong position to proceed with that development as we complete the recently announced \$102 million capital raising."*

"The substantial increase in the oxide copper resource is also a great result and will be mined during the first year of mining at DeGrussa. The benefits of this resource will become clear as we complete metallurgical test work to determine the optimum recovery method as part of the Definitive Feasibility Study. The open pit material can be accessed quickly and will generate important early cash flow at a very early stage in the operation," Mr Simich added.

W JOHN EVANS
TECHNICAL DIRECTOR (FAusIMM Competent Person)

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Competent Person's Statement

The information in this report that relates to Mineral Resources and Exploration Results is based on information compiled by John Evans who is a Fellow of the Australasian Institute of Mining and Metallurgy. John Evans is a permanent employee and director of Sandfire Resources NL and has sufficient experience which is relevant to the style of mineralisation and type of deposit under consideration and to the activity which he is undertaking to qualify as a Competent Person as defined in the 2004 Edition of the Australasian Code of Reporting of Exploration Results, Mineral Resources and Ore Reserves. John Evans consents to the inclusion in the report of the matters based on his information in the form and context in which it appears.

Forward-Looking Statements

Certain statements made during or in connection with this statement, including, without limitation, those concerning exploration targets, contain or comprise certain forward-looking statements regarding Sandfire's exploration operations, economic performance and financial condition. Although Sandfire believes that the expectations reflected in such forward-looking statements are reasonable, 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, 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. 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.

Exploration and Resource Targets

Any discussion in relation to the potential quantity and grade of Exploration Targets for the DeGrussa Project 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 resource inventory and it is uncertain if further exploration will result in the determination of additional JORC compliant Mineral Resources.

Figure 1 – DeGrussa Copper-Gold Project location

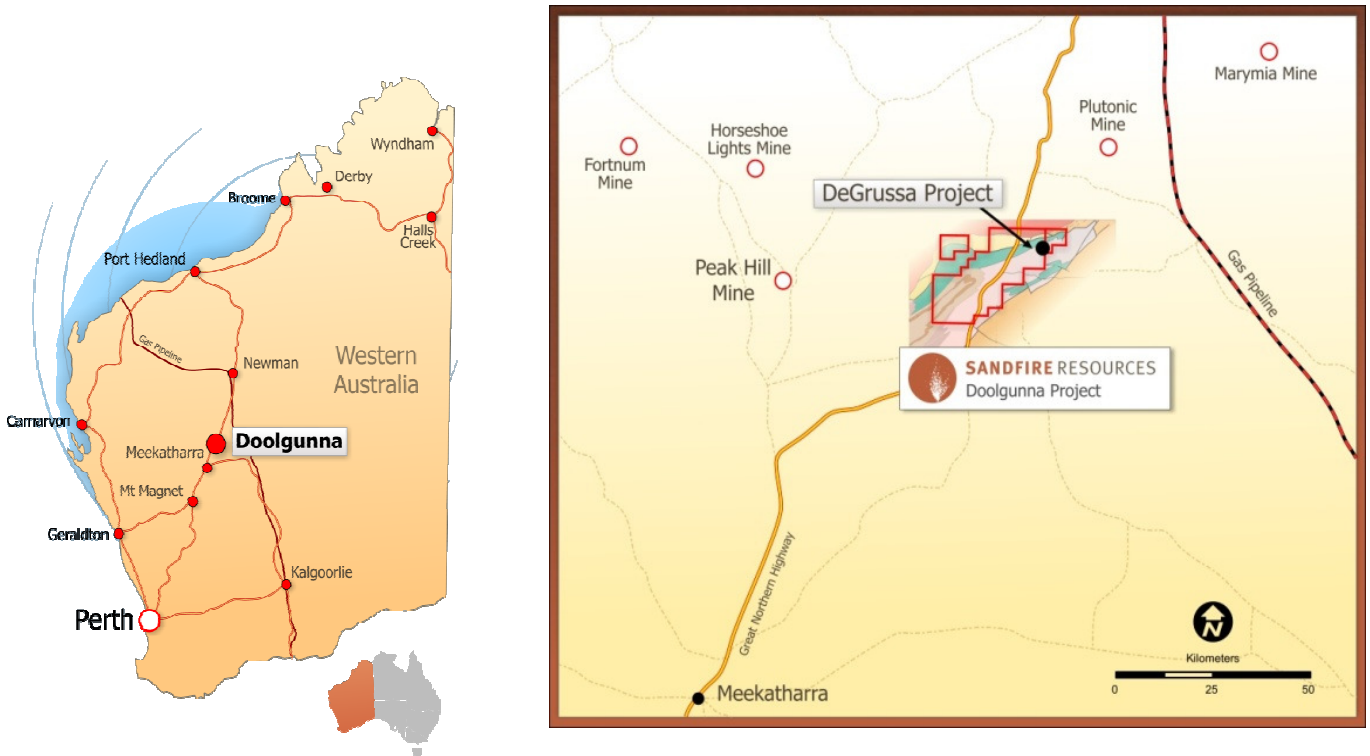
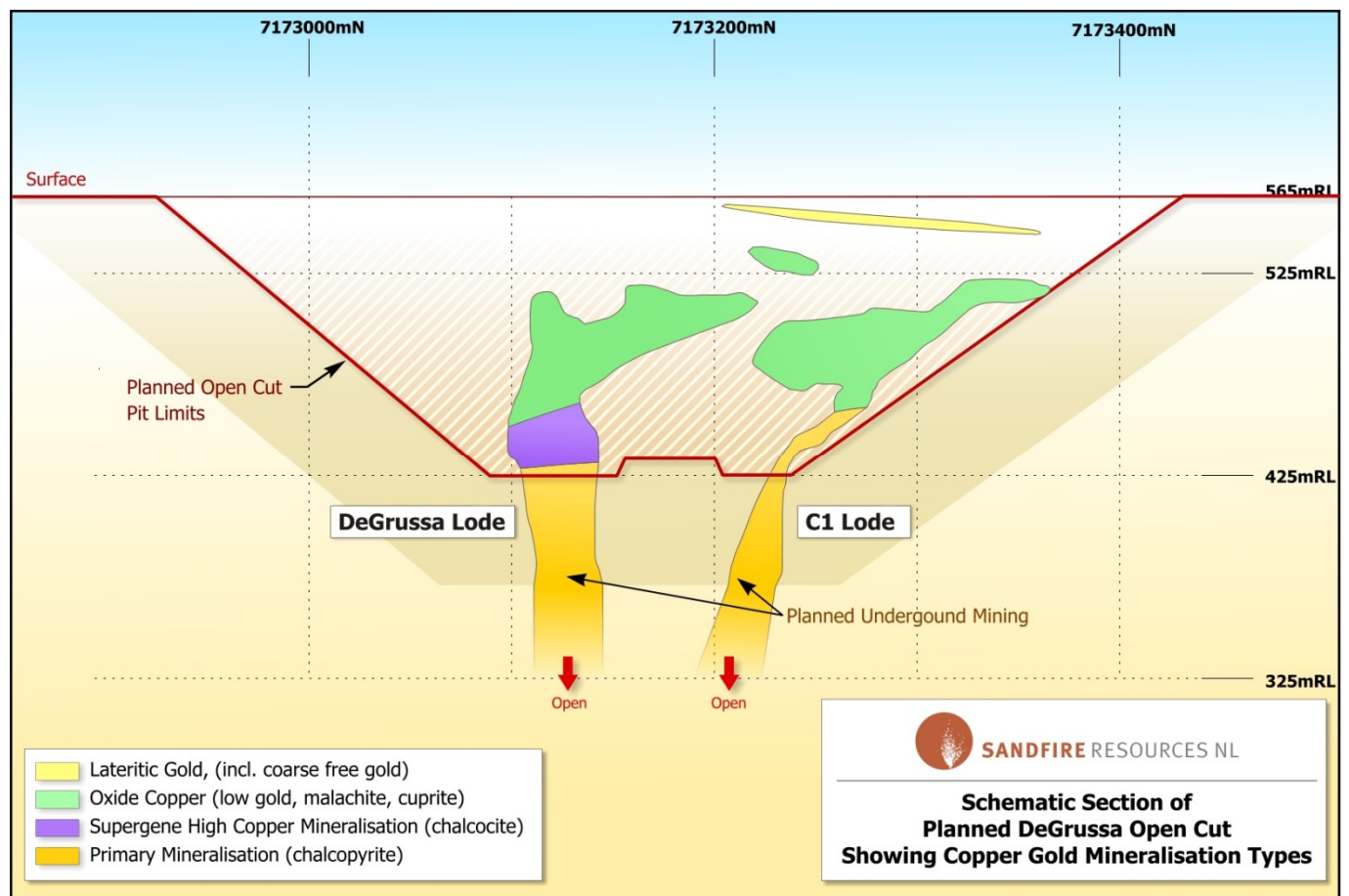


Figure 2 – Schematic Section of the DeGrussa Open Cut showing the lateritic gold, oxide copper and chalcocite zones overlying the main Conductor 1 and DeGrussa sulphide lodes



Appendix 1 – Phase III JORC Resource Mineral Inventory

Deposit	Resource Category	Tonnes (Mt)	Copper (%)	Gold (g/t)	Silver (g/t)	Contained Copper (tonnes)	Contained Gold (ounces)	Contained Silver (ounces)
DeGrussa Oxide	<i>Inferred</i>	0.10	8.8	2.2	11	8,000	7,000	33,000
DeGrussa Supergene Chalcocite	<i>Indicated</i>	0.25	17.6	2.6	21	43,000	20,000	165,000
DeGrussa Primary	<i>Indicated</i>	1.38	8.2	2.4	21	113,000	106,000	936,000
Conductor 1	<i>Indicated</i>	5.80	4.9	1.7	13	282,000	314,000	2,413,000
	<i>Inferred</i>	0.32	4.1	1.5	12	13,000	16,000	121,000
Conductor 4	<i>Indicated</i>	0.73	4.4	1.4	10	32,000	33,000	237,000
	<i>Inferred</i>	1.05	3.9	1.9	13	41,000	63,000	441,000
Conductor 5	<i>Inferred</i>	1.05	6.4	3.0	21	67,000	101,000	709,000
TOTAL	<i>Indicated</i>	8.15	5.8	1.8	14	470,000	474,000	3,750,000
	<i>Inferred</i>	2.52	5.2	2.3	15	130,000	186,000	1,305,000
	TOTAL	10.67	5.6	1.9	15	600,000	660,000	5,055,000

Appendix 2 – Laterite Gold and DeGrussa Conductor 1 Oxide JORC Resource Mineral Inventory

Deposit	Resource Category	Tonnes (Mt)	Copper (%)	Gold (g/t)	Contained Copper (tonnes)	Contained Gold (ounces)
Laterite Gold	<i>Measured</i>	0.14	0.1	1.5	-	7,000
DeGrussa – C1 Oxide	<i>Measured</i>	2.18	1.1	0.6	24,000	40,000
	<i>Indicated</i>	1.42	1.4	0.4	20,000	17,000
TOTAL	<i>Measured</i>	2.32	1.1	0.6	24,000	47,000
	<i>Indicated</i>	1.42	1.4	0.4	20,000	17,000
	TOTAL	3.74	1.2	0.5	44,000	64,000

Notes to appendices:

1. Values have been rounded and differences may occur.
2. The resources for DeGrussa Oxide, DeGrussa Supergene Chalcocite, DeGrussa Primary, Conductor 1 and Conductor 4 were estimated by Coffey Mining Pty Ltd and were based on 148 diamond drill holes and 8 RC drill holes. Drilling coverage is predominantly defined on a notional 40m by 40m drill spacing on North-South orientated cross-sections.
3. The resource for Conductor 5 was estimated by McDonald Speijers and was based on 10 diamond drill holes. Drilling coverage is predominantly defined on a notional 80m by 80m intersection spacing.
4. The resource reported in Appendix 2 was estimated by McDonald Speijers based on a reverse circulation drilling program on 20 by 20m intersection spacing.
5. DeGrussa oxide material reported within Appendix 2 represents incremental inventory above that reported within Appendix 1.