
SANDFIRE LODGES MINING LEASE APPLICATION FOR DEGRUSSA COPPER-GOLD PROJECT

KEY MILESTONE AS COUNTDOWN TO PRODUCTION BEGINS AT DOOLGUNNA

HIGHLIGHTS

- **17 square kilometre (km²) Mining Lease Application** lodged with Western Australian Department of Mines and Petroleum for the DeGrussa Copper-Gold Project
 - **Scoping Study progressing** with metallurgical core drilling recently completed and metallurgical testwork program underway – first results expected in the June 2010 Quarter
 - **Definitive Feasibility Study** on project development on track to commence in H2 2010
 - Planning well advanced for **major new exploration push** at Doolgunna
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Sandfire Resources NL (ASX: **SFR**; “Sandfire”) is pleased to advise that it has lodged an application with the Department of Mines and Petroleum of Western Australia for a **Mining Lease** over the **DeGrussa Copper-Gold Project**, part of its broader Doolgunna Project located 900km north of Perth in WA (see Fig 2).

The Mining Lease Application (MLA) process is integral to the current Scoping Study and the advancement of the DeGrussa Project towards development as part of the Definitive Feasibility Study due to commence in H2 2010.

It follows the recent announcement of a Phase 1 JORC compliant Indicated and Inferred Resource of **7.13 million tonnes grading 5.2% copper, 1.9g/t gold and 15g/t silver** (containing 372,000 tonnes of copper metal, 439,000 ounces of gold and 3.4 million ounces of silver) for the DeGrussa and Conductor 1 lenses. This resource was independently compiled by Coffey Mining Pty Ltd as reported in Sandfire’s ASX Release of 22 February 2010.

The area of the Mining Lease Application is approximately 17km² and covers the known mineralisation at DeGrussa, Conductor 1 and Conductor 4 as well as the surrounding area which will be required for an on-site concentrator and other supporting mine infrastructure and services such as a box-cut, power station, tailings dam, workshops, accommodation village and offices (see Fig 1).

The Mining Lease Application process will be progressed in parallel with consultations and negotiations with relevant stakeholders and preparations for future mining activities.

“This is a tremendous milestone for Sandfire and a great achievement by our team, with the Mining Lease Application being lodged less than a year from the discovery of the DeGrussa Project in April 2009,” said Sandfire’s Managing Director, Mr Karl Simich.

“Following our maiden resource announcement last month, we have now formally commenced the regulatory process with the Department of Mines and Petroleum leading to development of a world-class mining operation at Doolgunna. This is consistent with our timetable of commencing a Definitive Feasibility Study in the second half as a foundation for mine development in 2011.”

A program of large-diameter metallurgical core drilling has recently been completed within the resource envelope to provide some 5 tonnes of samples for metallurgical test work. This test work program is currently underway, with first results expected in the June 2010 Quarter.

Sandfire is also finalising planning for an expanded resource development and exploration program with further details to be provided shortly.

ENDS

W JOHN EVANS
TECHNICAL DIRECTOR (FAusIMM Competent Person)

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Competent Person's Statement

The information in this public report that relates to Exploration Results and Mineral Resources is based on information compiled by Mr John Evans who is a Fellow of the Australasian Institute of Mining and Metallurgy. Mr Evans is a permanent employee and Director of Sandfire Resources NL. Mr Evans 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. Mr Evans consents to the inclusion in the report of the matters based on his information in the form and context in which it appears.

Figure 1 – DeGrussa Project: Conceptual Mine Layout

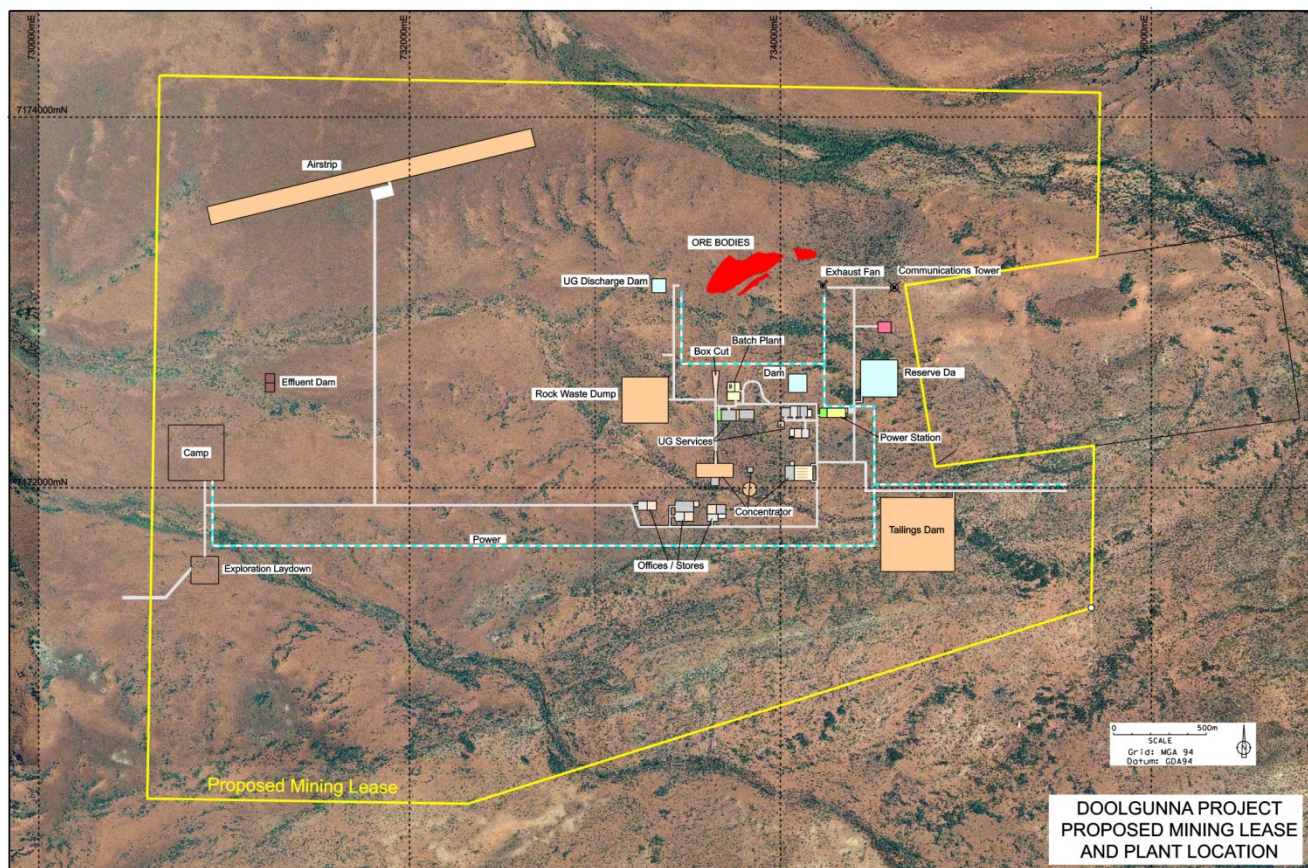


Figure 2 – DeGrussa Project: Location

