
QUARTERLY ACTIVITIES REPORT FOR QUARTER ENDED 31st March 2012

30th April 2012

QUARTERLY HIGHLIGHTS

- **METALLURGICAL CONSULTANT APPOINTED TO MANAGE SCOPING STUDY ON THE PROCESSING OPTIONS FOR THE DANDARAGAN PROJECT**
- **LAND ACCESS BEING SOUGHT FOR INITIAL GEOPHYSICAL SURVEYS AT COOLJARLOO PROJECT**
- **NEW PROJECT GENERATION ACTIVITIES CONTINUING**

DANDARAGAN PHOSPHATE PROJECT

Dempsey Minerals is investigating the feasibility of processing the Dandaragan Phosphate / Potash resource and Independent Metallurgical Operations Pty Ltd (IMO) have been selected to provide a proposal for a Scoping and Development Study for Dempsey Minerals' Dandaragan Phosphate / Potash mine.

IMO will undertake a Scoping and Development Study, including the scoping and management of metallurgical testwork, the development of a potentially economic flowsheet and performing feasibility and trade-off studies where required.

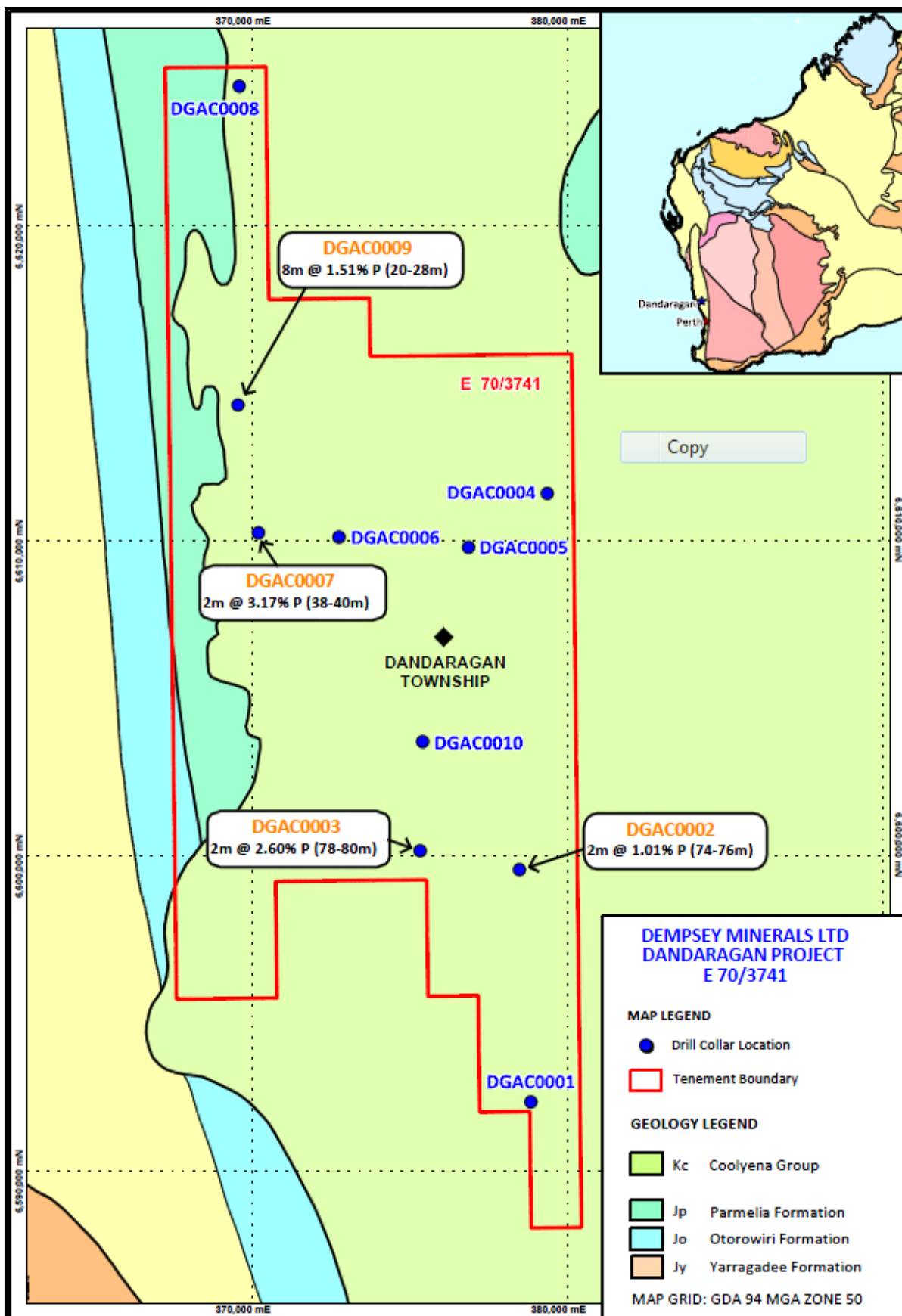
IMO's initial review of the supplied data suggests that this deposit can best benefit from the Scoping Study focusing on beneficiation, upgrading and gangue rejection as the early stages of the processing to maximise project economics.

The Dandaragan Project hosts numerous Phosphate occurrences occurring within Cretaceous sediments of the Dandaragan Trough. The origin and style of this mineralisation is unlike other major rock Phosphate projects in Australia, such as Phosphate Hill (Incitec Pivot) and Wonarah (Minemakers). Phosphate mineralisation at Dandaragan occurs as nodules and precipitates within sandy sedimentary host rocks similar to that observed in the giant Phosphate deposits of Florida, USA. Phosphate rock is one of the world's most important sources of phosphorus which is an essential nutrient for plants and one of the key ingredients in the production of fertilisers for use in agriculture. Currently Australia's resource base for Phosphorous is <1% of the world's global resources.

The Dandaragan Project also hosts Cretaceous potassium-rich Greensand Formations which contain significant concentrations of the potassium-bearing mineral glauconite. Glauconite is an iron-potassium, aluminium silicate (mica) that typically contains 6.6% potassium oxide (K₂O) and gives the formation its green colouration. Green sands are characterised by their high K₂O content and high total iron content (Fe₂O₃), and greensand formations of the Perth Basin can contain up to 50% glauconite. Glauconite can be extracted from greensands through the removal of clay, followed by magnetic separation for the manufacture of potash fertiliser products.

Potassium mineralisation within the Dandaragan Project occurs within glauconitic greensands, glauconitic claystone and glauconitic quartz sands of the Poison Hill Greensand Formation. A maximum potassium

percentage of **6.76% K₂O** was returned from DGAC0001 in coarse-grained, micaceous quartz sands over a 2m composite sample (66m-68m).



COOLJARLOO MINERAL SANDS PROJECT

The Cooljarloo Heavy Minerals Sands (HMS) Project is situated in the Northern Perth Basin of WA and lies approximately 150km north of Perth within a very active minerals sands mining district hosting HMS mines. The project abuts Tiwest's Cooljarloo mine and Image Resources Limited's Cooljarloo heavy mineral sands discoveries.

Land access is being negotiated for a ground geophysical survey.

CORPORATE ACTIVITIES

The company will continue working on it's existing projects and focus on it's corporate objectives to implement a growth strategy and to seek out further exploration, acquisition and joint venture opportunities.

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The information that relates to exploration targets, exploration results and drilling data of Dempsey operated projects is based on information compiled by Mr Don Horn a Member of The Australasian Institute of Mining and Metallurgy and The Australian Institute of Geoscientists respectively and are employees of the Company. Mr Horn has sufficient experience which is relevant to the style of mineralisation and type of deposit under consideration and to the activity which they are undertaking to qualify as a Competent Persons as defined in the 2004 Edition of the 'Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves'. Mr Horn consents to the inclusion in their names in the matters based on their information in the form and context in which it appears.

