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## Grange Resources Limited

*Australia's leading magnetite producer*

### Southdown Magnetite Resources Hit One Billion Tonnes

Grange Resources Limited ("Grange" or the "Company") is pleased to announce that, following the completion of an A\$8.3 million drilling program, the Mineral Resources at the Southdown Magnetite Project ("Project") have been increased by 75 per cent to 1.2 billion tonnes.

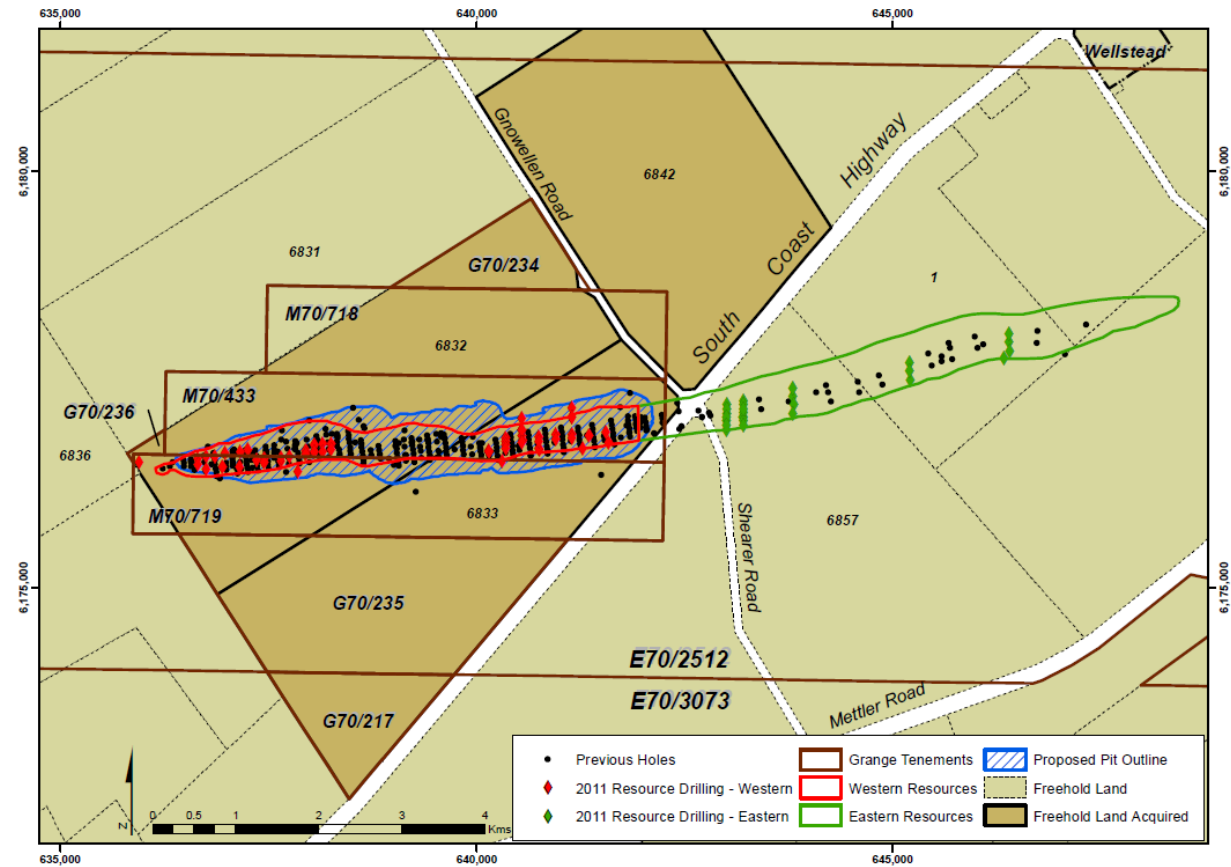
#### Southdown Mineral Resources

	As at December 2011		As at February 2012	
	Tonnes (Mt)	Tonnes (Mt)	Tonnes (Mt)	Grade wt% DTR
<b>Measured</b>	407	37.1	423	37.6
<b>Indicated</b>	40.2	40.2	87.4	38.4
<b>Inferred</b>	250.8	32.5	710.6	31.5
<b>Total</b>	<b>698</b>	<b>35.7</b>	<b>1,221</b>	<b>34.1</b>

Grange Managing Director, Russell Clark, said: "We recently announced an upgrade to the resources on the Western Tenements of the project. We have now completed the analysis of the drilling on the Eastern Tenements and are pleased to advise that the resource for the project now exceeds a billion tonnes."

"The drilling program was undertaken along the full 12 kilometre strike length of the mineralisation and comprised 85 holes with 22,727m of drilling. The increase in the Mineral Resource will provide greater confidence in the longevity of the Southdown Project, well beyond the life envisaged in the feasibility studies, which have been focused on the Western Tenements."

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**Figure 1: Southdown Location Plan - Location of 2011 drilling relative to the Southdown Mineral Resource.**

## Project Information

### Project Overview



**Figure 2: Map showing the Southdown Joint Venture Project**

Located approximately 90 kilometres northeast of the Port of Albany on the south coast of Western Australia (Figure 2), the Southdown magnetite deposit is approximately 12 km in length and represents one of the best premium quality magnetite deposits currently under development in Australia. With a location near existing port facilities, an ore body close to surface and near the regional population centre of Albany, the deposit is favourably placed for development.

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The Southdown Magnetite Project is a joint venture (JV) between Grange Resources Limited (70%), and Sojitz Resources & Technology Pty Ltd ("Sojitz") (30%), a wholly-owned subsidiary of Sojitz Corporation, a Japanese global trading company operating in various industries and services.

A pre-feasibility study ("PFS") on the project was completed in early 2011, which provided the owners with the confidence to undertake a definitive feasibility study ("DFS"), due for completion by the end of the first quarter of 2012. Major environmental permits associated with the mine and associated port development are in place.

## Tenements

The Southdown orebody location, comprising of the Western and Eastern tenements, is displayed in Figure 1 above. The western portion is covered by mining leases and the eastern portion is covered by an exploration licence.

The Southdown deposit occupies the core of a gently east plunging, overturned tight to isoclinal syncline with a steeply south dipping axial surface. The deposit is offset by moderately north-east dipping dextral reverse faults and subsidiary steeply south-east dipping sinistral faults.

Currently the resource extends for 11 kilometres of the 12 kilometre strike length of the deposit, with variable depths ranging from a surface outcrop in the west, to 550 metres below surface in the east. The average thickness of the mineralisation is 85 metres, with the deposit increasing in width towards the east as the thicknesses of low-grade and non-mineralised internal geological units increase.

## Resources and Reserves

Grange is announcing additional Resources at the Southdown Magnetite Project:

### SOUTHDOWN MAGNETITE PROJECT MINERAL RESOURCE ESTIMATE

Classification	Measured Resources	Indicated Resources	Inferred Resources	Total Resources
Tonnes (Mt)	423	87.4	710.6	<b>1,221</b>
DTR wt%	37.6	38.4	31.5	<b>34.1</b>

This Mineral Resource was completed by Ben Pollard of BM Geological Services and has been defined using geological boundaries and a cut-off grade of 10 wt% DTR (Davis Tube Recovery) and includes minor internal dilution.

The total Mineral Resource stated above combines an updated estimate of 511Mt at 36.6 wt% DTR for the western tenements, plus 709.8Mt at 32.3 wt% DTR for the eastern tenements. The eastern tenements Mineral Resource has increased by 512Mt based on the additional analytical results from the 2011 drilling program received during January. Further details of the total Mineral Resource are provided in Appendix 1.

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**Competent Person Statement**

*The information in this report which relates to the Mineral Resources of the Southdown Project is based on information compiled by Michael Everitt who is a full-time employee of Grange Resources Limited and a Member of the Australasian Institute of Mining and Metallurgy. Michael Everitt has sufficient experience which is relevant to the style of mineralisation and type of deposit under consideration and to the activity for which he is undertaking to qualify as a Competent Person as defined in the JORC Code (2004). Michael Everitt consents to the inclusion of this information in this statement of Mineral Resources in the form and context in which it appears.*

**About the Company:**

Grange Resources Limited is Australia's leading magnetite producer and the only commercial producer of magnetite pellets in Australia, combining both mining and pellet production expertise. Development of the Southdown Magnetite Project will see Grange Resources become one of the major suppliers of high grade magnetite in Australia.

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## Mineral Resource Statement Southdown Project – February 2012

BMGS Perth Pty Ltd has updated the Southdown Resource Model using all available assay data as of 31 January 2012. An extensive drilling program was undertaken during the latter half of 2011 along 11 kilometres of strike at Southdown. This announcement follows the release on 11 January 2012 of an updated Mineral Resource for the western tenements of the project, the portion of mineralisation located on granted Mining Leases.

This Mineral Resource Statement incorporates drilling results received for the eastern tenements of the Project, encompassing the eastern portion of mineralisation located on the granted Exploration Licence.

The resource estimate has been classified in compliance with the Australasian Code for the Reporting of Identified Mineral Resources and Ore Reserves (JORC Code, 2004). Classification of the Resource estimate as Measured, Indicated and Inferred status was completed by BMGS and Grange geologists, based principally on data density, geological confidence criteria and representativeness of sampling.

The *in situ* Mineral Resource is constrained to the mineralised domain boundaries. All blocks falling within the current orebody interpretation comprise this resource estimate.

### ASSUMPTIONS AND METHOD

This Mineral Resource estimate is based on a number of factors and assumptions:

- All of the available historic and current drilling data was used for the Mineral Resource estimation.
- Geological domains were interpreted and modelled in three dimensions. The geological domains were based on stratigraphy and Davis Tube Recovery (DTR).
- The survey control for collar positions was considered adequate for the purposes of this study. There is a degree of uncertainty (possibly ±10 m) associated with some of the historical collar co-ordinates. Downhole surveys of the historical holes used acid-etch tubes and are also imprecise.
- A review of the field duplicates, sample preparation duplicates and lab repeats as well as the certified and laboratory reference materials was completed. With the exception of standards submitted in 2009, no obvious discrepancies were identified with the duplicates, repeats and laboratory reference materials. For samples from the 2009 analytical program, Fe values reported by the laboratory for the two certified reference materials were consistently lower than the reference value; whereas, the reported DTC (Davis Tube Concentrate) SiO<sub>2</sub> and DTC S were consistently higher than the reference value. The values reported for Al<sub>2</sub>O<sub>3</sub> and LOI by the laboratory were higher for one certified reference material and lower than the reference value for the other. Certified reference materials submitted during 2011 returned results within expected ranges.
- Statistical and geostatistical analysis was carried out on drilling data composited to 3 m downhole. This included variography to model spatial continuity relationships in the geological domains.
- The Ordinary Kriging (OK) interpolation method was used for resource estimation of DTR, DTC Fe, DTC SiO<sub>2</sub>, DTC Al<sub>2</sub>O<sub>3</sub>, DTC S and DTC LOI, using variogram parameters defined from the geostatistical analysis.
- Wet bulk density was routinely recorded using water displacement and calliper methods. The Inverse Distance Squared interpolation method was used for the estimation of wet bulk density.

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- Estimations for concentrate grades were weighted by DTR in order to appropriately reflect the relationship between DTR and the DTC assays. Weighting was completed by calculating the accumulation (DTR<sup>2</sup> DTC assay) and subsequently back calculating the DTC assay estimates by dividing by relevant estimated DTR values.
- Reconciliation between the pilot plant testwork undertaken during 2011 and the Davis Tube Concentrate samples has shown that the pilot plant grade for SiO<sub>2</sub> is 20% lower than the Davis Tube Concentrate samples. Grange has commenced a program of work to assess this variation. Initial investigations indicate successive analytical programs since 2005 may have varied due to changes in technology, instrumentation and methodology as understanding of magnetite ores have increased. The likely outcome is not yet known, but may result in an overall decrease in the DTC SiO<sub>2</sub> which is seen as a positive for the project. The differences with the DTC SiO<sub>2</sub> do not materially affect DTR, which is the main driver of value for the project.
- For Type 3a in the Eastern Zone, four high DTC composites were identified as outliers and excluded from the estimation. Variable DTC assays and uncertain geological continuity rendered this domain classification inferred.
- Oxidised mineralisation is not included in this statement of Mineral Resources.

### MINERAL RESOURCE STATEMENT

The resource estimates were classified in accordance with guidelines provided in the Australasian Code for Reporting of Identified Mineral Resources and Ore Reserves (JORC Code, 2004). The classification of Mineral Resources was considered appropriate on the basis of drill hole spacing, sample interval, geological interpretation and representativeness of all available assay data.

This resource has been defined using geological boundaries and a cut-off grade of 10 wt% DTR and includes minor internal dilution. All reported concentrate grades are weighted by DTR.

The resource is based on the Ordinary Kriging interpolated block model sdn\_resource1202 and is reported below the depth of oxidation (Table 1). The resource includes 11,000 m of strike, with variable depths ranging from 50 m below surface to 550m.

**Table 1: Southdown *in situ* Mineral Resource at a cut-off grade of 10 wt% Davis Tube Recovery (DTR).**

Classification	Measured Resources	Indicated Resources	Inferred Resources	Total Resources
Tonnes (Mt)	423	87.4	710.6	<b>1,221</b>
DTR wt%	37.6	38.4	31.5	<b>34.1</b>

The information in this statement which relates to the Mineral Resources is based on information compiled by Michael Everitt who is a full-time employee of Grange Resources Limited and a Member of the Australasian Institute of Mining and Metallurgy. Michael Everitt has sufficient experience which is relevant to the style of mineralisation and type of deposit under consideration and to the activity for which he is undertaking to qualify as a Competent Person as defined in the JORC Code (2004). Geological interpretations and resource estimation was completed by Ben Pollard of BMGS Perth Pty Ltd and BMGS geologists.

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