

ASX ANNOUNCEMENT

10 May 2010



Prefeasibility Study update

Pilbara Iron Ore Project – Western Australia

highlights

- First stage of metallurgical program completed on schedule.
- Resources suitable for Direct Shipping Ore (DSO) and beneficiated Channel Iron Deposits (CID) products identified.
- Encouraging early findings from mine modelling.
- Preliminary infrastructure studies completed.
- Financial models give robust economic returns on development options up to 15Mtpa.



Tenements E47/882 (Blacksmith) and E47/1560 (Anvil)

Flinders Mines Limited (FMS) 100%

This release presents an update from the early results of the Pilbara Iron Ore Project Prefeasibility Study (PFS). The study has over four months to run and no final conclusions have yet been drawn.

METALLURGICAL TESTWORK – INITIAL FINDINGS

Flinders Mines Limited's (ASX: FMS) Phase 1 metallurgical program, undertaken as part of the current PFS, has been completed on schedule.

A scope of work for Phase 2 of the metallurgical program has now been finalised.



Diamond drilling for metallurgical testing, Delta deposit, November 2009.

Results from analysis of the first stage have revealed:

- The various ore types have a low abrasive index, low Crushing Work Index (CWI) and low Unconfined Compressive Strength (UCS).
- The Blacksmith tenement has resources suitable to yield a possible range of DSO products (CID and Bedded Iron Deposits), beneficiated CID products, and a possible 'lump' product.

Phase 2 of the metallurgical program will further assess the physical and pyrometallurgical characteristics of the product suite identified in the first stage of the program.

MINING – CONCEPTUAL STUDIES UNDERWAY

PFS mining studies have been initially based on the Pilbara Project's Delta deposit due to its lower stripping ratios and higher iron grades. Based on the geometallurgical understanding now developed, and the initial product analysis, conceptual mine planning has commenced. Encouraging early modelling outcomes include:

- Relatively low stripping ratios.
- Likely Probable Ore Reserves once the PFS is complete.
- Ease of mine scheduling.
- High conversion of the lower CID resource (CID 3 and CID 4) tonnage and the BID resource tonnage to mineralised inventory.
- Mining likely to be above the water table.

INFRASTRUCTURE

Preliminary scoping studies have also been completed with respect to infrastructure options for the Pilbara Iron Ore Project, encompassing road, road/rail, and rail possibilities via a number of different routes.

FINANCIAL MODELLING COMMENCED

Financial modelling has commenced on the project, with a view to understanding and refining the preferred development opportunities.

On the basis of the currently modelled resource, metallurgical testwork, the potential product suite and conceptual mining studies, a range of development options up to 15Mtpa have been financially modelled and give robust economic returns.



Measuring borehole water levels during hydrological surveying, Pilbara Iron Ore Project, November 2009.

These positive aspects of the project are likely to support Flinders Mines' objective of converting a proportion of the Indicated Resource to a JORC compliant Probable Ore Reserve and development of a mine production schedule at the completion of the PFS.

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