Iron Road Limited (ASX:IRD) Confirms Viability of Sinter Feed Product from the Central Eyre Iron Project

22.11.2011 | ABN Newswire

Perth, Australia (ABN Newswire) - Iron Road Limited (ASX:IRD) is pleased to confirm positive results from sinter test work for the proposed iron concentrate to be produced at the Central Eyre Iron Project (CEIP) in South Australia.

Highlights

- Confirmation that the CEIP product will be suitable for use in sinter plants as sinter feedstock and will not require additional processing into pellets before use.

The available market for CEIP product is significantly larger than many other proposed magnetite projects as the majority of blast furnace based steel mills have associated sinter plants.

CEIP product will also avoid the possibility of future constraints in pellet plant capacity.

Iron Road is now in a position to capture a premium price for CEIP product, without incurring the added expense of additional processing into pellets.

- Sintering realises a cost benefit to final steel manufacture for the proposed CEIP product, compared to typical magnetite concentrates requiring pelletisation.

- As a result, Iron Road is now confident that a premium above Pilbara fines prices will be achieved for the 67% Fe content concentrate, thus confirming a higher project value for CEIP.

Confirmation of the pricing premium will have positive implications for project economics and further enhance Iron Road's position in its ongoing partnership discussions.

- CEIP product shows similar characteristics in use to Brazilian Pellet Feed Fines, which is a universally well understood iron product.

- Sinter test work also shows possibility of CEIP product replacing Australian and Brazilian Fines in steel mill use.

Sinter characterisation test work undertaken in Japan for Iron Road demonstrated significant benefits in use for steel mill customers, advancing the test work previously undertaken under the completed Prefeasibility Study.

Iron Road's Prefeasibility Study for the CEIP indicated that a coarse grained sinter feedstock grading 67% Fe (iron), would be expected to fetch a premium above Pilbara fines prices. The sensitivity analysis of pricing fines indicates that project returns increase dramatically when pricing is linked to the expected value in use for the CEIP product. The 'base case' Net Project Value of $1.1 billion for CEIP is based upon long term iron prices, without the inclusion of a premium above standard fines prices.

With the positive results received from the sinter test work, Iron Road is now confident that the premium above Pilbara fines prices will be achieved and consequently a higher project value for CEIP.

Sinter Test Work Programme

Iron Road Limited is planning to produce a magnetite concentrate from the CEIP in South Australia. The objective is to produce a coarse magnetite product (P80 -106µm) with iron liberation characteristics suitable for use in the major sintering market. Most magnetite concentrates have iron liberation at finer particle sizes than the CEIP product and are therefore used in a dedicated pellet plant or sold into the relatively smaller pellet feed market.

Understanding the characteristics of ore behaviour in sintering may be determined by test work.

HN-Minerals have developed a micro-testing technique to provide the basic information by which broad conclusions can be drawn regarding the likely performance of an ore in a sinter pot testing campaign and in sinter plants. The HN-Minerals test work was undertaken by arrangement at the NSTR (Nippon Steel Testing and Research) facility in Japan. Dr Y. Hida and Mr N. Nosaka are recognised leaders in their field and are responsible for the development of the micro-testing technique.

The main process was to test the agglomeration characteristics of the samples and compare these against other sinter feed ores.

The tests relevant to the sintering process included:

- Assay and mineralogical review by particle size;

- Granulation testing;

- Bulk density determination;

- Moisture absorbance characteristics;

- Review of oxidation potential;

- Adhering fines and sinter properties; and

- Assimilation properties.

Test work was carried out on the basis of Japanese sintering conditions and iron ore types.

Chinese mills use considerably higher percentages of magnetite concentrate than Japanese mills and therefore test outcomes based on Chinese conditions are considered likely to be even more positive.

The test work concluded that CEIP concentrate is suitable for use in conventional sintering plants without the need for pelletising.

Summary of Key Findings

Results from the testing of CEIP -106µm iron concentrate indicate:-

- Coarse particles contain the majority of the gangue material (feldspar and quartz)

This fraction represents only 2.2% of the product mass.

- Granulation properties are similar to Brazil Pellet Feed Fines

This is a widely used product particularly in Japan, Korea and China where steel mills have sintering practices adapted to use this material.

- Good oxidation properties similar to ultra-fine magnetite concentrate.

Suggests that CEIP concentrate used in sinter mix with high proportions of Australian fines will produce positive sinter outcomes.

- Sintering properties of adhering fines is inferior to ultra-fine magnetite concentrate

These properties can be improved by increasing CaO/Ore or by grinding of the coarser portion.

- Assimilation properties suggest that as adhering fines, with an Australian CID (channel iron deposit) as the

core particle, CEIP concentrate demonstrates a lower primary melt formation than similar concentrates

Chinese mills use considerably higher percentages of magnetite concentrate than Japanese mills so test outcomes based on Chinese conditions are likely to be more positive.

For the complete Iron Road announcement including figures and tables, please view the following link: http://media.abnnewswire.net/media/en/docs/ASX-IRD-567718.pdf

About Iron Road Limited:

Iron Road Limited (ASX:IRD) is an Australia-based company. The Company is engaged in exploration and evaluation of its iron ore ground holdings. Its projects include the Central Eyre Iron project, Gawler Iron project and Windarling Iron project. The Central Eyre Iron Project consists of three distinct prospects: Warramboo, Kopi and Hambidge. The Company focuses on establishing a resource inventory that underpins a 5 to 10 metric tons per annum (Mtpa) magnetite export operation. It contains magnetite-bearing gneiss units with a cumulative strike length. Gawler Iron project includes over ten areas of known iron occurrences, including the Mt Christie deposit. A total of 252 in-situ rock chip and grab samples from 10 localities at the West Gawler project returned an average grade of 53.4% Fe. The Company developed a stage plan of ground work on Windarling project.

Source:

Iron Road Limited

Contact:
Andrew Stocks
Managing Director
Iron Road Limited
Tel: +61-8-9200-6020
http://www.ironroadlimited.com.au