RIDLEY MAGNETITE PROJECT - PRELIMINARY FEASIBILITY STUDY OUTCOMES

Atlas Iron Limited [ASX Code: AGO] is pleased to report on the completion of the Preliminary Feasibility Study (PFS), for its 100% owned Ridley Magnetite Iron Ore Project (“the Project”), located 75 kilometres east of Port Hedland in the Pilbara of Western Australia (Figure 1 attached).

Key outcomes from the Preliminary Feasibility Study include:

- **EXPANDED CONCENTRATE PRODUCTION OF 15 MILLION TONNES PA at 68.3% FE**
- **PROJECT ESTABLISHMENT COST ESTIMATED AT A$2,722M + A$250M CONTINGENCY**
- **AVERAGE REAL OPERATING COST OF A$36.22 / TONNE CONCENTRATE FOB**
- **AVERAGE EBITDA PER ANNUM OF A$535 MILLION**
- **STRIP RATIO LESS THAN 0.5:1 FOR CONCEPTUAL LIFE OF MINE**
- **GREATER THAN 30 YEARS CONCEPTUAL MINE LIFE**

“The completion of the PFS demonstrates clearly that the Ridley Magnetite Project is world class. The combination of a long mine life, significant resource upside, the ability to produce a high quality concentrate and the Project’s strategic location will ensure that Ridley is developed,” commented David Flanagan, Atlas’ Managing Director. “The PFS provides significant technical details on the Project for the introduction of a JV partner,” he added.

PRELIMINARY FEASIBILITY STUDY – KEY INPUTS

The completion of the PFS marks the culmination of two years work in diamond drilling, resource modelling, metallurgical test work, process development and mine planning managed by Atlas in conjunction with its consulting engineer, Engenium.

PRELIMINARY FEASIBILITY STUDY – OUTCOMES

The technical and financial evaluations arising in the Study have confirmed the potential of the Project, and have concluded that further assessment and progress towards project development is warranted.

Significant outcomes arising from the PFS include:

**Capital & Operating Cost Estimates**

The estimated capital requirement for the establishment of the project is A$2,972 million including contingency of A$250 million. Within this cost some 32% (approx A$986M) is represented by the processing plant (or Concentrator) alone.

The Project is also subject to foreign currency exposure with approximately A$505M representing converted foreign currency, equating to approximately 16% of the total capital, with the majority of this being USD exposure.

The average annual real operating cost has been estimated at A$36.22/tonne of concentrate, or A$12.64/tonne of ore mined. Annualised power and labour costs represent some 46% of the total operating cost for the Project.

**Iron Ore Market Analysis**

Iron Ore market analysis specialists CRU were commissioned to provide advice in determining long-run magnetite concentrate pricing for export from Port Hedland. CRU’s analysis of forward market conditions for seaborne magnetite concentrate concluded that the Ridley concentrate will attract a premium to the Hamersley benchmark due to the grade and low levels of impurities within the product.
The forecast was prepared in January 2009 therefore takes into account the recent downward trend in iron ore forecasts, with the long-run pricing over the life of the project averaging ~US$51 per dry metric tonne.

CRU's pricing forecasts have been included within the project financial modelling undertaken by PricewaterhouseCoopers.

**Metallurgical Assessment**

Initial RC drilling provided over 1,000 Davis Tube Recovery (DTR) results. Subsequent diamond drilling provided a further 3,000 DTR results. Over 4,800 results were graphed with a cumulative representation of over 90% reporting a DTR% of SiO$_2$ (silica) of less than 5%.

The Grind/Recovery relationship has formed the basis of the process design. A final grind size resulting in 80% passing 30 micron ($P_{80}$ 30 micron) has been selected to balance the overall magnetite liberation and the ability for the concentrate product to be used in the pelletizing process. To reach the final concentrate target silica grade of 4.3% SiO$_2$, a flotation step has been included within the proposed process flow sheet. Additional flotation test work improved the flotation weight recovery to 94.8%.

**Mining**

Ore delivery via a mobile mining fleet to In-Pit Crushing and Conveying (IPCC) equipment is proposed for the mining operation. Given the scale of the operation, including the requirement to mine over 48 million tonnes of ore per annum, a system of 3 in-pit crushing stations would ultimately be installed. IPCC significantly reduces the mine operating costs by eliminating longer truck hauls and reducing the size of the mobile mining fleet.

Investigations undertaken during the Study highlighted significant economic advantages in using an IPCC system over the previous conceptual plan of conventional drill, blast, load and haul to a centralised out of pit primary crushing plant. Studies demonstrated a 43% reduction in haulage costs when using IPCC (equating to a saving in mining costs of approximately $368M over the life of mine).

A staged ramp-up of the mining operations would be required to satisfy the long delivery lead times of the major pieces of equipment required for the processing facility. Pit excavation in a three stage development was considered. Staging shell changes indicated that a life of mine (LOM) average mining rate of 75Mtpa inclusive of waste (consistent with three shovels) could supply sufficient ore to the plant to maintain a throughput of 48.3 Mtpa.

Optimisation studies conducted during the PFS have demonstrated the very low waste to ore strip ratio (<0.5:1, waste to ore) that is driven by the significant widths and continuity of the Ridley Resource. Figure 2 attached outlines the extensive drill programs that have been conducted to deliver the Ridley Projects significant resource base. Deep diamond drilling on section 722,400mE to over 750 metres depth below surface (Figure 3) points to the extensive upside that is available to the project to grow the Resource and thereby extend the mine life.

Drill core and crushing test work has indicated the extent of layering and the brittle nature of the material, resulting in an assessment that the ore will crush well.

Ore will be transferred from the in-pit crushers to the processing plant via covered overland conveyors.

**Processing Facility – Concentrator**

The Concentrator design uses multiple stages of autogenous grinding followed by magnetic separation, to provide a good balance between minimising operating costs and maximising magnetic recovery whilst achieving the key product parameters.

The decision to use autogenous grinding is based upon an assessment of operating costs of the various crushing and grind techniques (including High Pressure Grinding Roll – HPGR), the amenability of the feed for this procedure, and the need to use wet processes at a relatively coarse stage to minimise dust generation.

The target end product from the concentrator is a magnetite product of 80% passing 30 micron with a silica grade of 4.3%, which would be achieved with the inclusion of a reverse flotation process. With this target achieved, it is expected that the product would be exported off-shore for pelletising.

A diagrammatic representation of the processing facility is shown in Figure 4.

**Mine and Process Waste Disposal**

During mining and processing several inert streams of processing waste are derived including:

- Coarse run-of-mine waste;
- Crushed waste rock from processing; and
Each of the waste streams is proposed to be fully contained within the mine Waste Storage Facility (WSF). The WSF would be constructed in six stages with a maximum storage capacity of approximately 892M m$^3$ with an ultimate footprint estimated to be 2,200 ha. The WSF would be located on the flood plain, to the west of the Ord Ranges and the proposed plant site.

Deposition on the WSF will occur via truck transport of run-of-mine waste, conveyor transport of crushed waste rock from processing and the deposition of fine tails waste via paste thickened discharge. All materials within the WSF will be wholly contained, with the added advantage of thickened discharge improving the efficiency of process water use by returning significant volumes to the process plant. Water balance calculations conducted during the PFS suggest that, for an average rainfall year in the Pilbara, the WSF may return approximately 0.5GL of rainfall runoff back to the plant.

### Logistics to Port and Port Facilities

Limited current availability of existing ship loading facilities in Port Hedland, and uncertainty over timing of berth capacity for a Project of this size had prompted the Study to examine “offshore” options. A concentrate line from the mine site to a trans-shipment vessel, which would be located approximately 20km off shore, was selected as the preferred option due to the following:

- No dredging is required to establish the loading site;
- Loading rates would not be impeded; and
- Sufficient storage would be facilitated using a purpose modified mini Cape-sized bulk carrier.

Other key outcomes concluded the following:

- Dewatered concentrate ship loading would be available approximately 352 days per year, with concentrate being transported to the trans-shipment vessel 358 days per year,
- Dewatering of the concentrate slurry would be undertaken on the trans-shipment vessel, and
- Concentrate could be loaded at a constant rate of up to 8000tph (dry equivalent).

### Infrastructure and Services

Studies relating to the Project's general infrastructure have shown the following outcomes:

- The Project would utilise in the order of 330MW of electrical power for operation, for the Port and offshore ship loading facilities, mine site, accommodation camp and processing areas, bore field and water supply pipeline;
- Gas would likely be sourced from the North West shelf, with a gas pipeline being constructed from Port Hedland to the mine site for reticulation of the required supply to the site power station;
- A water supply rate of approximately 15.5GL per annum at a maximum Total Dissolved Salts (TDS) of 1000mg/L would be required for the Project’s operation. Water supply investigations have demonstrated the West Canning basin as the most viable source for this quantity; and
- The accommodation camp was sized at 773 rooms for an approximate on-site workforce of 744 people; and
- The estimated workforce during the construction phase will be approximately 960 people.

### Specialist consultants contributing to the PFS

The specialist consultants that contributed to the PFS outcomes are as follows:

- Geology and Mineral Resources: CSA Geological Consultants
- Mining Study: AMC Consultants
- Processing Plant - Concentrator: SNC Lavalin
- Metallurgy: Ammtec / Polysius / Engenium / Maanshan Institute, China
- Iron Ore Market Analysis: CRU / Atlas Iron Limited
- Capital Cost Estimate: Engenium
- Operating Cost Estimate: Engenium / AMC Consultants
- Financial Analysis and Evaluation: Price Waterhouse Coopers
- Hydrology and Hydro-Geology: MWH Global
- Crushing, Overland Conveying & Stockpiling: Clyde Dexter Pty Ltd
- Tailings / Mine Waste Disposal: Golder Associates
- Logistics to Port – Concentrate Transport: Slurry Systems Engineering
- Port Facilities: SNC Lavalin
- Infrastructure and Services: Engenium
FORWARD WORK PROGRAMME

Partnerships / Strategic Alliances / Other Agreements

The Company continues to receive expressions of interest from potential strategic partners to assist in the development of the Ridley Project. The Company will now focus on attracting a suitable joint venture partner to take the Project through to development.

BACKGROUND ATLAS IRON LIMITED

Atlas is mining at its 100%-owned Pardoo Iron Ore Project, located 75 kilometres by road from Port Hedland, in the Pilbara of Western Australia and completed its first shipment of Pardoo DSO in early December 2008. Atlas is planning to export 1 million tonnes during its first 12 months of operations at the Pardoo Project, growing to 3 Mtpa following commissioning of the Utah Point port facility. When combined with additional export tonnages from its Abydos DSO Project, the Company is targeting exports at an annualised rate of 6 Mtpa by 2010, growing to 12 Mtpa by 2012.

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Average US Dollar / Australian Dollar exchange rate used for PFS
A$1 = USD$0.669

Initial Ore Reserve Statement – Ridley Magnetite Project
Investors are referred to Atlas Iron Limited’s announcement dated 14 April 2009
Figure 1 – Ridley Magnetite Project Location Plan
Figure 2 – Ridley Resource Location Plan

Figure 3 – Ridley Resource Cross Section – 772,400mE
Figure 4 – Diagrammatic Processing Plant Layout