

30 March 2005

## Completion of the Mt Weld Rare Earths Feasibility Study

### HIGHLIGHTS

- The Mt Weld Rare Earths Feasibility Study has now been completed
- The feasibility study proposes to mine and crush ore at Mt Weld in Western Australia and export the ore to China
- An integrated flotation plant and concentrate treatment plant is to be built in China to produce intermediate Rare Earths products and an iron oxide based co-product
- Capital expenditure for the project is forecast at A\$49.2 million, as at December 2004
- The NPV of the project is forecast at A\$106 million using a real discount rate of 8%, and the project IRR is 30%, based on December 2004 Rare Earths prices which have been kept flat for the life of the project in the financial evaluation
- Project EBITDA is forecast at A\$21.5 million and A\$34.9 million for production at 10,500 tonnes per annum (tpa) and 15,000 tpa of Rare Earths oxides equivalents respectively
- Environmental approvals have been received in both Australia and China
- Chinese Government project approval is in the course of application

### FEASIBILITY STUDY COMPLETION

The Directors of Lynas Corporation Limited (ASX code LYC, "Lynas") are pleased to announce the completion of the Mt Weld Rare Earths Feasibility Study. Mr Nick Curtis, Executive Chairman of Lynas noted:

"This is a major milestone for Lynas. The company has developed a business model for Mt Weld that will create shareholder value, a business model that is sensitive to the environments in which the company will operate, and a business model that will be welcomed by the many corporations around the globe that use Rare Earths. The Mt Weld feasibility study is the foundation on which Lynas will create a reliable, fully integrated source of supply from mine through to customers."

## **FINANCIAL EVALUATION**

Capital and operating costs were developed as part of the feasibility study to  $\pm 10\%$  accuracy. The capital costs for an open pit mine at Mt Weld and processing plants in China are estimated at A\$49.2 million. In addition Lynas has a contingent debt to Ashton of A\$8.3 million, payable on project development.

Revenue assumptions are based on December 2004 Rare Earths market prices which have been kept flat for the life of the project in the financial evaluation.

The Net Present Value (NPV) of the project is forecast at A\$106 million using a real discount rate of 8%. The project Internal Rate of Return (IRR) has been calculated at 30% on an ungeared basis.

Project EBITDA is forecast at A\$21.5 million in year two of operation when forecast production is equivalent to 10,500 tonnes of Rare Earths oxide (REO), increasing to A\$34.9 million in year five as expected project volumes increase to 15,000 tonnes of REO.

## **PROJECT DESCRIPTION**

Lynas proposes to mine and crush a Rare Earths - iron oxide ore at Mt Weld in Western Australia, and export the ore to Shandong Province PRC, where Lynas and its JV partner plan to build processing plants at a site already secured. The ore will be treated by physical and chemical processes to produce relatively pure intermediate Rare Earth products and an iron oxide co-product.

## **AUSTRALIAN OPERATIONS**

Total JORC compliant Resources\* in the Mt Weld Deposit are estimated to be 7.7 million tonnes @ 11.9% REO. The first 14 years of operation are based on proved and probable Reserves of 2.08 million tonnes @ 15.5% REO.

Operations within Western Australia include:

- Open pit mining and stock piling of ores at Mt Weld
- Crushing of ore
- Bulk transport of ore in 8 tonne kibbles by road and rail to Esperance Port
- Storage of ore at Esperance Port and periodical ship-loading

The development of the open pit mine, formation of stockpiles and transport of 30,000 tonnes of ore to Esperance Port prior to shipment of the first consignment are expected to take approximately nine months.

## **CHINA OPERATIONS**

Land has been secured in Shandong Province where processing operations include physical beneficiation of the ore to produce a Rare Earths concentrate and an iron oxide concentrate, and subsequent chemical treatment of the Rare Earths concentrate.



The physical processing steps used in the concentrator include milling, classification and flotation. Chemical processing consists of concentrate decomposition with sulphuric acid at elevated temperature, water leaching which dissolves the Rare Earths, impurity removal from the Rare Earths solution, and several steps of Rare Earths group-separation by solvent extraction to produce intermediate Rare Earths chlorides suitable for further refining by specialised Rare Earths separation plants.

After drying, milling and particle size classification, the iron oxide co-product is suitable as a rubber and plastics filler, with demand expected from the regional plastics industry. Total utilisation of the ore significantly reduces the environmental impact of the processing plants, provides useful material to the region and the additional revenue stream enhances the project economics.

Lynas engaged a Chinese design institute in Shandong Province to undertake an engineering study with cost estimations for the Rare Earths concentrator. This study was based on a flowsheet and engineering design defined in a study by Lycopodium (2004) in Australia and the pilot plant completed in 2003. A Chinese design institute also completed the engineering study for the cracking and initial group-separation plant, based on existing technology from the Chinese Rare Earths industry.

Localising all the processing in China at an integrated site has realised significant capital and operational cost savings and benefits including:

- Low cost energy from the chemical treatment plant in the form of steam for process heating in the concentrator
- Simplified handling of the fine concentrate, minimising issues with dust during bulk transport
- Centralised production and technical teams
- Common personnel for management, administration, maintenance, safety, environment
- Common infrastructure such as laboratory, store, vehicles, maintenance equipment, high voltage substation, reverse osmosis plant, and treated water pond
- Common reagent mixing and storage systems
- Improved communication between interdependent processes minimising operational risk and issues

## APPROVALS

In the December 2004 quarterly report Lynas announced that the Australian and Chinese environmental approvals were under review. The Lynas Board is pleased to advise that the necessary environmental approvals have now been received. The application for project approval in China has been submitted to the relevant government authorities. The approvals required for commencement of the project are listed below:

Australian Environmental Approval	Received
Australian non-substantial change for Esperance route	Received
Chinese land use rights approval	Received
Chinese waste water treatment quota	Received
Chinese Environmental Approvals – chemical treatment plant	Received
Chinese Environmental Approvals – concentrator plant	Received



Chinese Project Approval  
Chinese Business Licence for the Joint Venture  
Australian Government Export Licence  
Australian Notice of Intent

Submitted  
Application to be submitted  
Application to be submitted  
Application to be submitted

## **NEXT STEPS**

The company will seek the remaining approvals required as outlined above and continue negotiations for off-take contracts and funding for project development.

\* The resource estimates were prepared by Dr Phillip Hellman BSc (Hons) PhD FAIG from Hellman and Schofield (“H&S”) who is the Competent Person as defined by the JORC Code. Information in this release relating to resource estimates is based on and accurately reflects a report provided by Dr Hellman.

## **ABOUT LYNAS CORPORATION**

Lynas is a publicly listed company on the Australian Stock Exchange. After a change of control in June 2001, Lynas’ focus changed from gold to Rare Earths. Lynas owns the world’s richest deposit of Rare Earths at Mt Weld, 35km south of Laverton in Western Australia.

Lynas’ strategy is to become a fully integrated supplier of Rare Earths (from mine to end customers) to the world market with a particular focus on leveraging China’s expertise and low cost base for processing Rare Earths. China also represents the largest market for Rare Earths.

The management team has excellent experience and understanding of China’s resources industry, including the current business and political trends, supported by years of working with China and developing a business in China. This knowledge enabled Lynas to access the excellent Chinese Rare Earths process engineers and chemists who have helped unlock the value of the Mt Weld Rare Earths deposit.

Lynas also has a JORC compliant Rare Metals resource known as the “Crown” deposit. This is a niobium rich rare metals resource that is a separate deposit to the Mt Weld Rare Earths deposit. A scoping study has been completed on the Crown deposit.

## **ABOUT RARE EARTHS**

The Rare Earths series of elements has a range of unique metallurgical, chemical, catalytic, electrical, magnetic, and optical properties that enable them to play a major role in the advancement of materials technology. These elements are enriching our lives by enabling industry trends such as energy efficiency, miniaturisation, environmental cleanliness, and provision of colour and light.

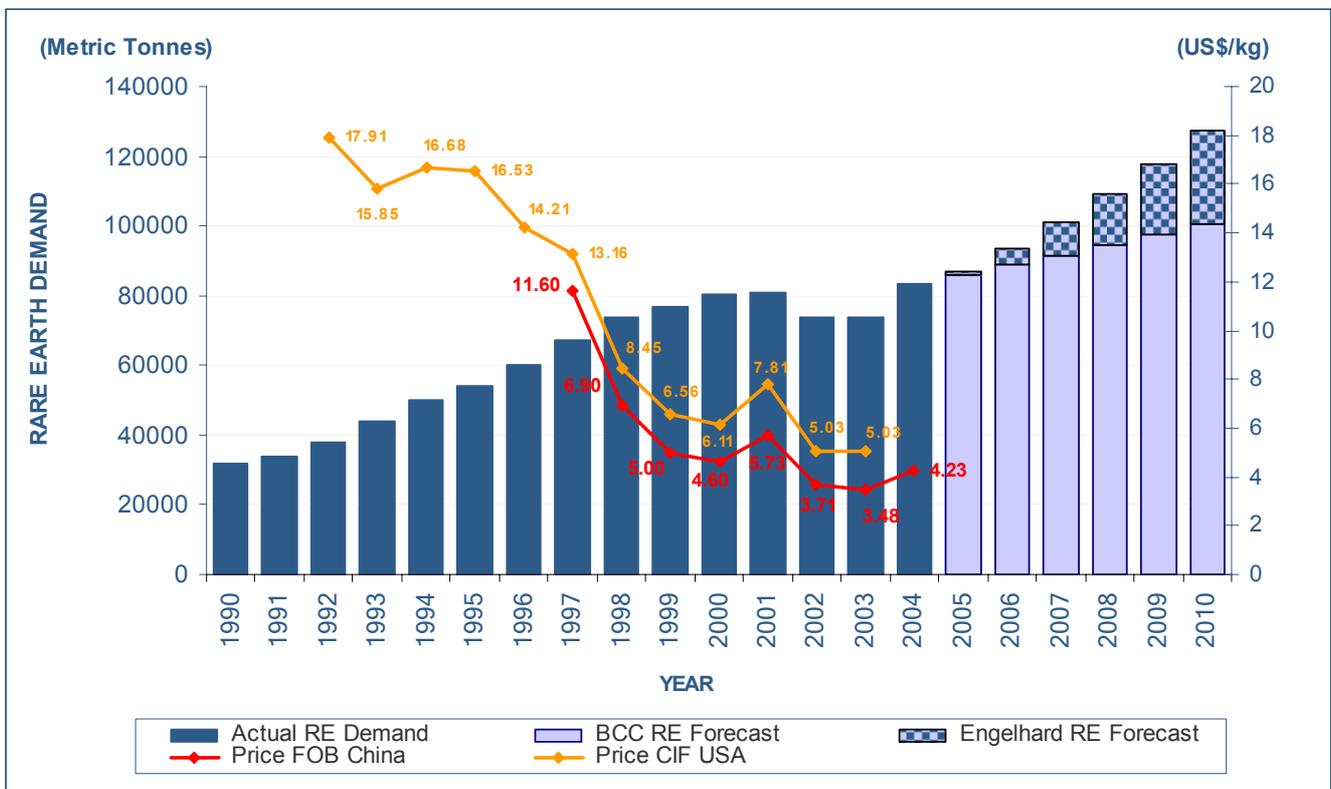
Rare Earths already play a critical role in the electronics, automotive, and energy sectors in applications such as powerful Neodymium magnets, Europium based colour and white light phosphors, automotive catalytic converters, and NiMH re-chargeable batteries to name only a few of the many applications that use Rare Earths.



Rare Earths is the generic name used for 15 metallic elements of the Lanthanide series in the periodic table; Lanthanum, Cerium, Praseodymium, Neodymium, Samarium, Europium, Gadolinium, Terbium, Dysprosium, Holmium, Erbium, Thulium, Ytterbium and Lutetium, (atomic numbers from 57 through 71), plus Yttrium (atomic number 39).

The chart below shows the Rare Earths market has been growing consistently for the last 15 years, except during the global technology slow-down of 2002 and 2003. Independent market growth forecasts for the next 5 years range from 5% to over 8% compound annual growth rate, taking the 2004 market size from 80,000tpa REO to 100,000 – 125,000tpa REO in 2010.

The chart below also shows prices for a generic composite of Rare Earths, equivalent to the Rare Earths distribution at Mt Weld, on a China Free On Board (FOB) and USA Cost, Insurance and Freight (CIF) basis for 99% purity oxides. Note that higher purity oxides and other value added products will have a higher price, however these prices will be related to the underlying standard 99% oxide price.



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