



**AN EMERGING
RARE EARTHS
PRODUCER
FOR USERS
WORLDWIDE**

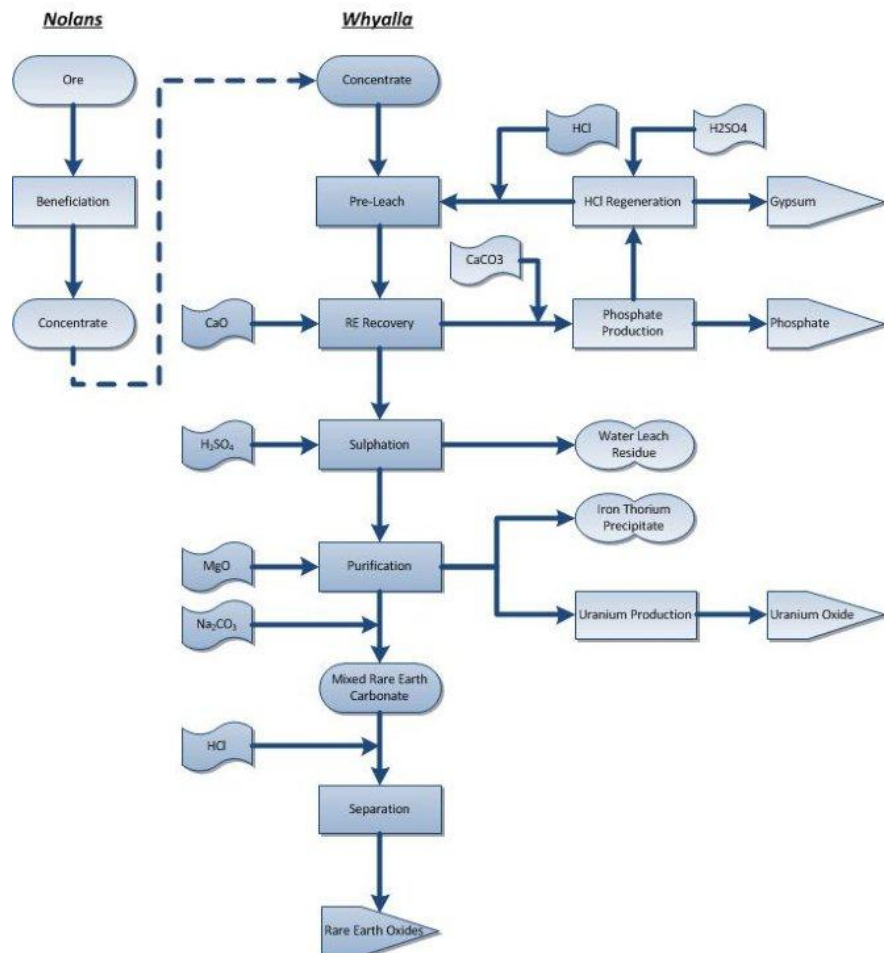
DEMONSTRATION PROGRAM UPDATE

Arafura is pleased to provide an update on the Demonstration Program for key aspects of the Rare Earths production process.

Background

Arafura's Rare Earth production flow sheet has previously been proven at pilot scale. The purpose of the Demonstration Program is to operate at a larger scale to reduce Nolans Project scale up risk, optimise equipment selection and verify design data. Scale up ratios from Demonstration plant to Full Scale plant are in the range 1:140 to 1:280 for major plant areas. The Demonstration Program will also generate samples for target customer evaluation and further build stakeholder and investor confidence. In addition, Arafura will gain detailed operating experience which will be invaluable in the future when full scale operations commence. Good progress has been made to date. This work program is on track as a key component of the Bankable Feasibility Study (BFS) which is due to be completed with project finance in place by the end of 2012.

Nolans Project Flow Diagram



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Mining

The Demonstration Program began in 2010. Approximately 1500t of mineralization ('ore') was extracted from the Nolans Bore resource using a wide diameter Bauer drill rig. Samples were obtained from a wide cross section of the resource to a depth of approximately 70 metres partly representative of the first few years of planned mining.



Bauer drill rig – Nolans Bore

Beneficiation

The 'ore' was transported to Perth in 2011 and during Q4 2011 was beneficiated to produce a mineral concentrate. This work was undertaken at ALS Ammtec.

Pre-leach

Following beneficiation, during Q4 2011, chemical processing of the mineral concentrate commenced at ALS Ammtec. A pre-leach circuit (12t/day) in which mineral concentrate is reacted with hydrochloric acid (HCl) is in operation and performing well.



Pre-leach Circuit- ALS Ammtec

The Rare Earth containing solids produced have been dried and transported to ANSTO in Sydney where subsequent processing will take place early in 2012.



Pre-leach Circuit – ALS Ammtec

The liquid stream produced at ALS Ammtec has been processed to generate a solid phosphate. The residual HCl containing liquid has been used to successfully commission the HCl regeneration circuit of the final integrated pilot plant.

Rare Earth Extraction (Sulphation & Downstream)

Commissioning of demonstration facilities for sulphation and downstream processing is progressing well at ANSTO. These facilities will be operated in production mode during Q1 2012.



*Sulphation and Downstream Facilities -
ANSTO*



Rare Earth Oxide Separation

Production of Rare Earth Oxide (REO) samples for customer evaluation is well underway. Product quality is being aligned with target customer requirements. The full range of planned products will be available by the end of Q1 2012. Customers have been invited to observe the trials at ANSTO. The provision of samples to customers is a key milestone in the program to secure future sales contracts.



Solvent extraction circuit for REO production - ANSTO

Integrated Pilot Plant

Final testing of the integrated pilot plant will take place in H1 2012. The HCl regeneration circuit which comprises part of the final plant has already operated successfully for a period of 5 days continuous operation with 100% availability. Gypsum samples are under customer evaluation.



HCL Regeneration Circuit

Future Program

The future program is summarised below.

	Q1 2012			Q2 2012		
	J	F	M	A	M	J
Pre-leach	■					
Sulphation & Downstream Processing	■■■■					
Rare Earth Oxides	■■■■					
Integrated Pilot Plant Operation				■■■■■		

Dr Steve Ward, Arafura’s Managing Director and CEO commented, “We have an impressive team of staff, contractors and consultants working together on the Demonstration Program. They have the skills and requisite experience in metallurgy and chemical operations to make this a resounding success. Overall, excellent progress has been made to date. Work is on track to be completed in readiness for the final BFS. Further updates will be given as progress milestones are achieved.”

- ENDS -

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