

ASX RELEASE

12 April 2017

ASX: ARU



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NOLANS PHOSPHATE EXTRACTION CIRCUIT PILOTING COMPLETE

- **Phosphate extraction circuit pilot successfully completed on schedule**
- **Planning underway for subsequent stages of pilot program**

Arafura Resources Limited (ASX: ARU, “Arafura” or the “Company”) is pleased to announce the successful completion of phosphate extraction flowsheet piloting for its 100 per cent-owned Nolans Neodymium/Praseodymium (“NdPr”) Project in the Northern Territory.

The phosphate extraction pilot plant is the second stage of Arafura’s final piloting of the Nolans process flow sheet (ASX: ARU 10/03/17 and Figure 1). It follows from the successful operation of the (Phase 1) beneficiation pilot plant (ASX: ARU 06/02/17) which delivered a clean high-phosphate concentrate (“HPC”) that features enhanced recoveries of phosphate (>90%) and the key magnet-feed rare earths NdPr (>82%), and efficient rejection of iron and aluminium impurities.

The phosphate extraction piloting operation was conducted over a 10-day period during March at SGS Australia’s facilities in Perth. This period of operation included commissioning and operation under two different process conditions to evaluate their impact on performance across the circuit.

Arafura personnel managed the program with independent advice from phosphoric acid expert Prayon Technologies. Outcomes from the pilot plant, including materials handling and equipment performance data, will be used for detailed design, final feasibility and investment decision.

The pilot is expected to confirm previous bench scale test results, and samples collected throughout pilot operations would indicate this has been achieved. Confirmatory data relating to overall recovery of rare earths and product quality will be reported by the Company in the coming weeks on receipt of validated assays.

The program consumed around 400 kilograms of HPC and resulted in the production of NdPr-rich pre-leach residue (“PLR”) and rare earth recovery precipitate, merchant grade phosphoric acid (“MGA”), and waste gypsum.

The Company is now planning for Phase 3 of the Nolans Pilot Program: the bulk preparation of PLR by pre-leaching the balance of the HPC produced from the Phase 1 beneficiation pilot. This work is planned to be conducted during the current quarter.

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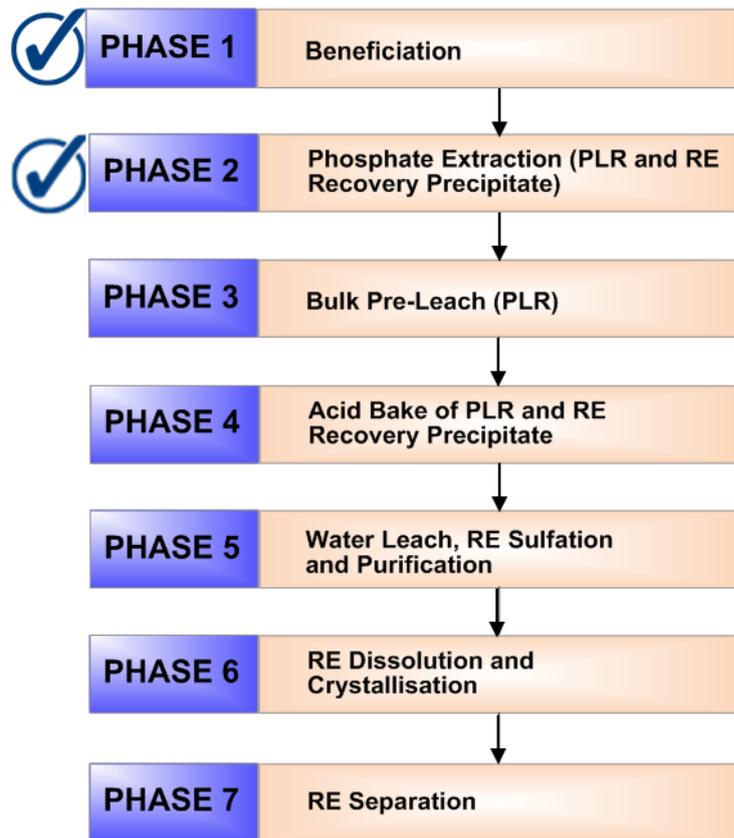


Figure 1: Nolans Pilot Program
 Each phase is operated on a continuous basis

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High-Phosphate Concentrate feed to the pilot plant



NdPr-rich products from the pilot plant
Pre-Leach Residue (L) and Rare Earth Recovery Precipitate (R)



Merchant Grade Phosphoric Acid product (L) and Gypsum waste (R)



Pre-Leach Circuit



Pre-Leach Filter Feed Tanks



Rare Earth Recovery Circuit



Rare Earth Recovery Filters



Phosphoric Acid Regeneration Circuit