

## State-Of-The-Art Bath Pilot Batch Reactor Installed at ALCORE

Bath pilot batch reactor arrived at Alcore Technology Centre, following manufacture by specialised international supplier

Reactor with associated support system has been fully installed, with commissioning commencing this week

Reactor employs state-of-the-art technology to enhance process mixing, which is critical to achieving high fluorine yield

ABx Group (ASX: ABX) ("ABx" or "the Company") is pleased to announce the arrival and installation of the bath pilot batch reactor at 83%-owned subsidiary ALCORE's Technology Centre located on the NSW Central Coast.



**Figure 1: Bath pilot batch reactor (centre) installed at ALCORE Technology Centre**

ALCORE is developing a pilot plant facility to recover fluorine from 'excess bath' (an aluminium smelter waste product) to produce hydrogen fluoride, with a later-stage commercial plant to further react the hydrogen fluoride to produce aluminium fluoride – a high-value chemical essential for aluminium smelting.

Recent development work by ALCORE has strongly indicated that achieving a very high fluorine yield from the aluminium smelter waste is feasible. However, it is contingent on achieving sufficient process mixing which was difficult to achieve using the existing ALCORE laboratory reactor. Yield is important, to maximise the amount of hydrogen fluoride and aluminium fluoride produced and minimise the amount of fluorine that reports to the metal sulfate co-products. The bath pilot batch reactor features state-of-the-art technology to enhance process mixing. Following engineering design by ALCORE, it was ordered from a specialised international supplier in late March. It features a process capacity ten times larger than the bath laboratory reactor. If the pilot batch reactor achieves its designed high yield of fluorine from the aluminium smelter waste, it will:

- Give further confidence that the continuous pilot plant and first commercial plant will perform as designed
- Enable further development work to be conducted on processing and market evaluation of the metal sulfate co-products

The bath pilot batch reactor has been fully installed and commissioning is underway.

ABX Group Managing Director and CEO Dr Mark Cooksey said:

*"The commissioning of this state-of-the-art reactor will be a major milestone in the development of the ALCORE process, as it will demonstrate that sufficient fluorine yield can be achieved using commercial reactor designs and process conditions. This significantly increases confidence in the overall process scale-up and commercialisation."*

This announcement is approved for release by the board of directors.

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### About ABx Group Limited

ABx Group (ABX) is a uniquely positioned, high-tech Australian company delivering materials for a cleaner future.

The three current significant projects are:

- Creation of an ionic adsorption clay rare earth project in northern Tasmania
- Establishment of a plant to produce hydrogen fluoride and aluminium fluoride from recycled industrial waste, via its 83%-owned subsidiary, Alcore
- Mining and enhancing the value of bauxite resources for cement, aluminium and fertilisers.

We only operate where welcomed and we apply best practices to restore any disturbed land to a better condition than we found it.

### Disclaimer Regarding Forward Looking Statements

This ASX announcement (Announcement) contains various forward-looking statements. All statements other than statements of historical fact are forward-looking statements. Forward-looking statements are inherently subject to uncertainties in that they may be affected by a variety of known and unknown risks, variables and factors which could cause actual values or results, performance, or achievements to differ materially from the expectations described in such forward-looking statements.

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