

ABx Group

ABX.ASX

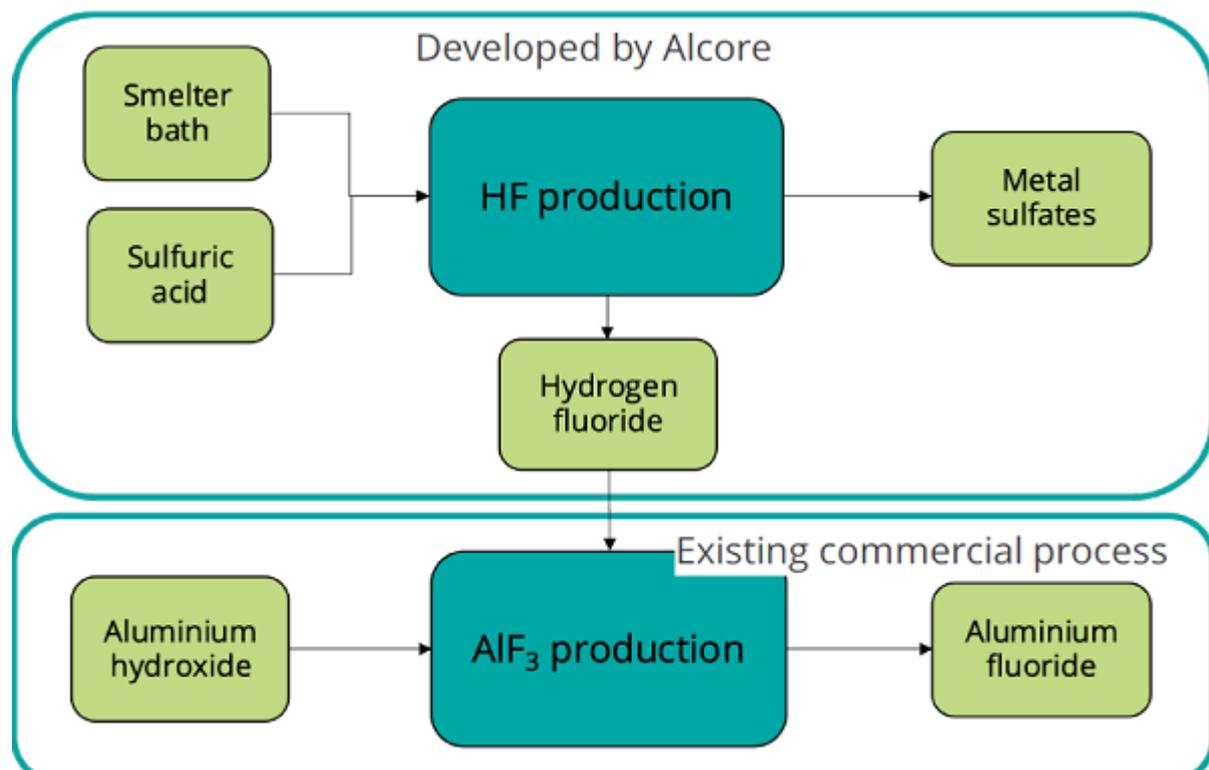
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ABX.ASX Snapshot

Alcore to pilot fully funded

ABx Group has taken significant step toward the full commercialisation of its Alcore process (ABx's interest 83%), with full funding now in place to advance the process to pilot plant stage. Following on from the recent Alcore announcement, an agreement to supply bauxite from DL130 in Tasmania over a five year period has been signed. In the meantime, the rare earths project continues to advance. The following image shows the Alcore process flowsheet (HF – hydrogen fluoride, AlF_3 – aluminium fluoride):



Source: ABx

We view the advance of Alcore to pilot plant stage as a major milestone event and confirms our view the process has serious commercial potential. The rare earths project is, we believe, developing into a game changer for ABx and the bauxite contract is a very good development. **Consequently, we continue to recommend ABx Group as a Hold.**

To finalise the funding of the Alcore pilot plant ABx placed, with professional and sophisticated investors, **18.75 million shares at A8 cents per share. The placement raised A\$1.5 million.** The shares were, at the time of writing, trading at A8 cents. **We are comfortable with the dilution, as we believe the Alcore process has the potential to be a major source of future shareholder value-add.** We are however a little disappointed shareholders were not provided with an opportunity to participate in the funding.

The placement shares came with one free option for every two placement shares taken up. The option carries an exercise price of A12 cents and expires on 6 September 2025. The option will not be listed on the Australian Stock Exchange and at this stage carries time and volatility values only.

The pilot plant will be funded fully by the placement funds and a A\$7.5 million grant from the Federal Governments' Australian Government Modern Manufacturing Initiative Fund. **The pilot plant will prove proof of production on a small scale, with a capacity to process 20 kilograms of 'excess bath' (a waste out of producing aluminium) per hour** (kg/h). Alcore has reached the next milestone, with the announcement, today, the special bath pilot batch reactor has been installed and commissioning is getting underway. The pilot plant is expected to have a capital cost of A\$2.0 million and is anticipated to be operational in 2024. The following image shows the installed bath pilot batch reactor (blue and yellow plant):



Source: ABx

Commercialisation of the process will see a plant built at Bell Bay Tasmania, in proximity Rio Tinto's 100% owned Bell Bay aluminium smelter. The smelter produced 185,000 tonnes of aluminium in 2022 and is on track to produce around the same volume in 2023.

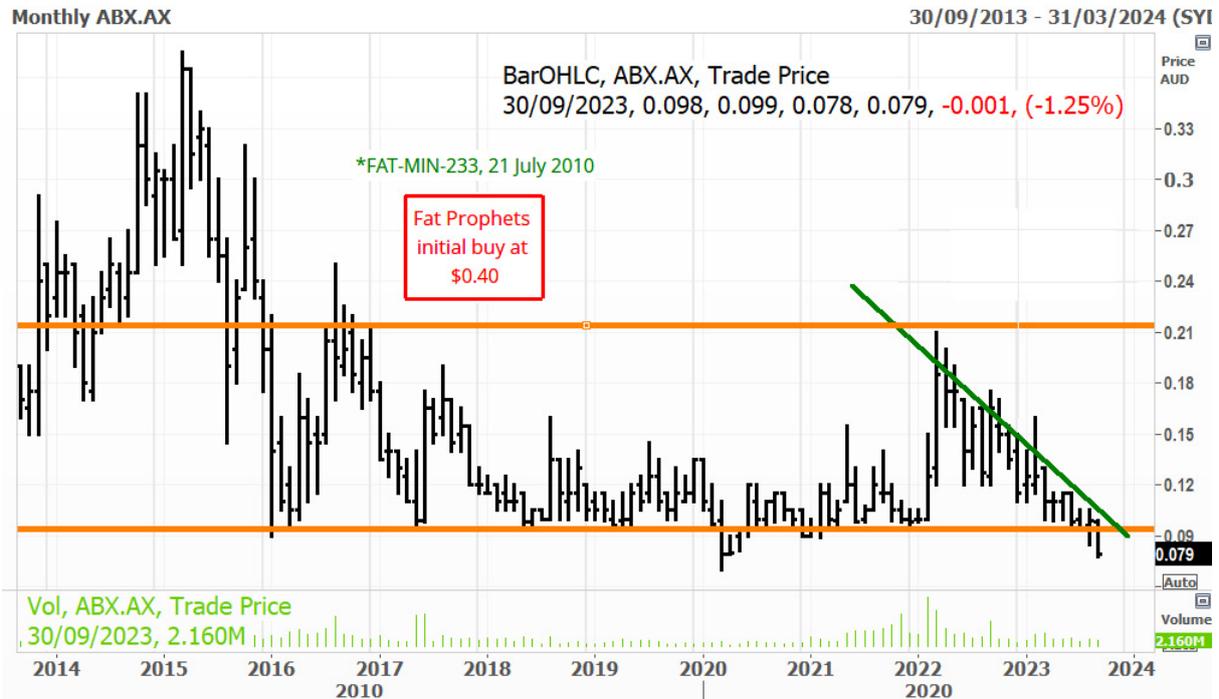
The Alcore plant will have a capacity of 200kg/h of 'excess bath' to produce 1,300 tonnes annually of AIF3 and has a capital cost forecast of \$16.4 million. **Fully commercial production has not been firmed up, but expectations are it will occur within the next couple of years.** ABx is planning to take production to 3,000kg/h of 'excess bath' to produce 20,000 tonnes annually of AIF3 and carries an estimated capital cost of A\$80 million. A startup date has yet to be firmed up. A production unit cost estimates have yet to be advised but are expected to be toward the lower end of the AIF3 cost curve.

We have followed the Alcore process and believe the upgrading of waste material to a value add commodity will be a major game changer for ABx.

With Alcore now on the road to commercialisation, it was **pleasing to see the announcement of a sales contract for bauxite.** This contract will underpin the bauxite business for the duration of the contract.

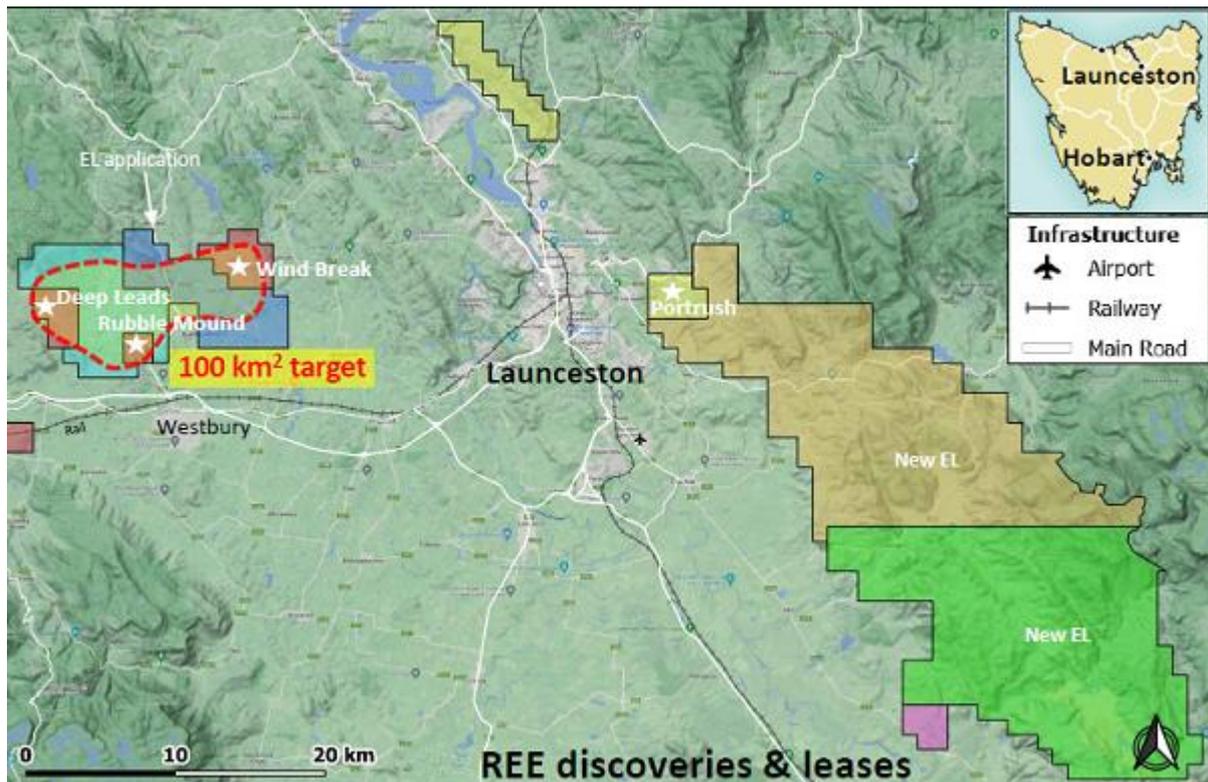
On the 10 year monthly chart below, ABx Group shares have traded within a range for much of the past seven years with historic support well defined at 9c and resistance above 20c. For the past few years since spiking to 20c in early '22, the stock has

remained in a primary downtrend. Technically the outlook deteriorated further in recent months with the break down below the historic support level at 9 cents. This technical outcome now raises the scope for further downside in the coming year. Only a dramatic reversal above historic resistance at 21 cents would improve the technical outlook



Adelaide Brighton Cement (Adelaide Brighton) has agreed to purchase **90,000 to 120,000 tonnes of cement and fertiliser grade bauxite over five years, commencing from the March quarter 2024**. The contract also carries a further five year extension at Adelaide Brighton's election. Applications for a mining lease for DL130 in Tasmania are pending. Pricing for the first cargo has been set and ABx has indicated the shipment is profitable. All subsequent shipments will see the price negotiated at the time the shipments are made. **We believe the agreement is the first tangible steps by ABx to establish a thriving bauxite operation.** Patience has been required for value to be established on the bauxite front.

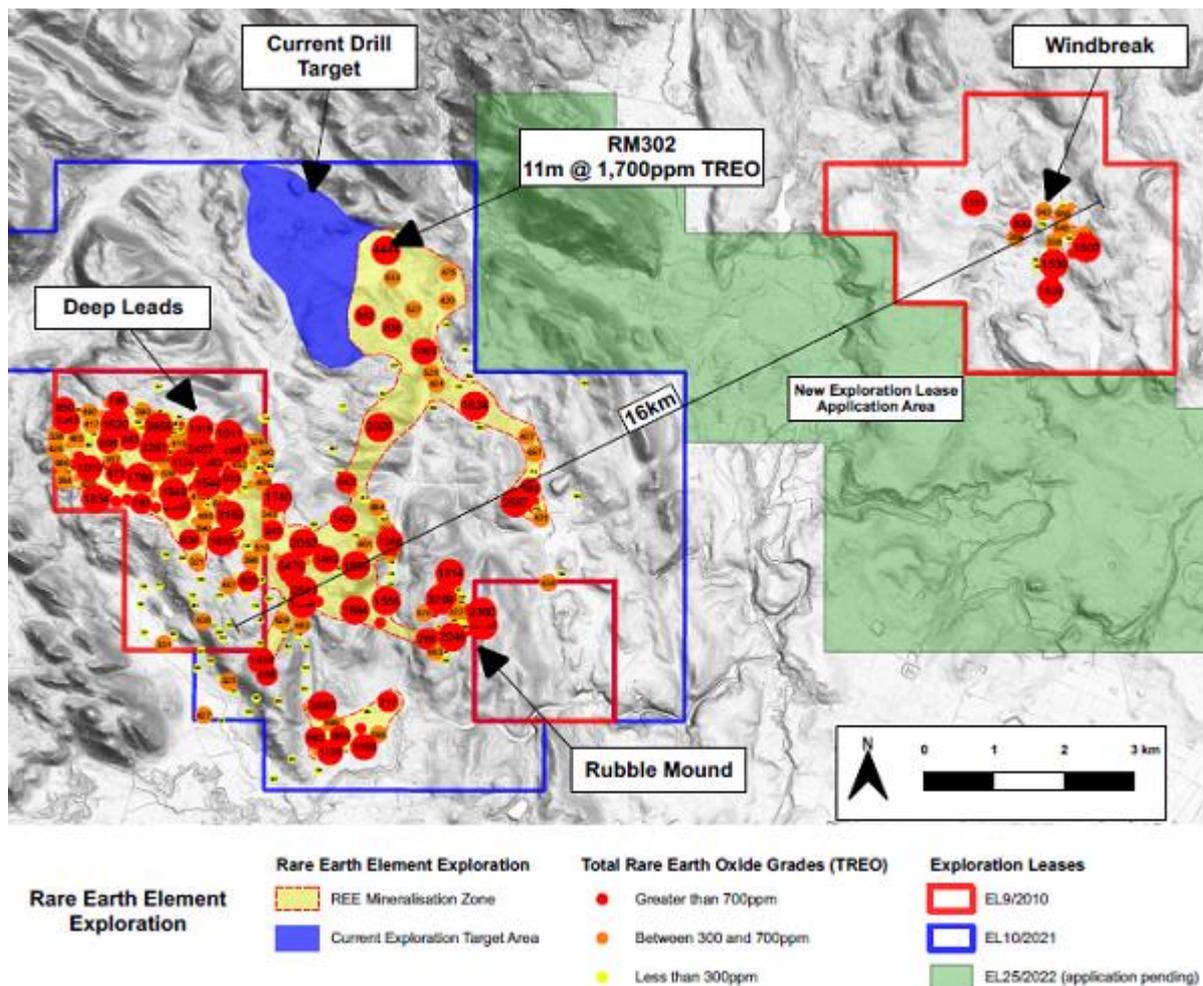
On the rare earths front, **REE assays, we have reported on, from Deep Leads and Rumble have returned the highest extractions from any clay hosted rare earths prospect in Australia.** These assays have come from four discoveries spanning 52² kilometres near the city of Launceston in Tasmania. The following image shows the region of the rare earth elements discoveries in Tasmania (EL – exploration lease):



Source: ABx

From 6,728 metres of drilling totalling 681 drill holes, the **rare earths resource estimate for the region stands at 27 million tonnes of clay with a mean TREO (total rare earths oxides) of 803 parts per million (ppm) and a mean TREO CeO₂ (cerium oxide) of 603ppm.** This estimate is some six times greater than the maiden estimate and cover only 22% of the know estimated mineralised area. **This clay would have once been the waste from extracting bauxite.**

An 18 hole drill programme has been completed at a new discovery in proximity to Deep Leads. The results from this programme are pending. The following image shows the region of the Deep Leads Rubble Mound and Windbreak prospects and the new discovery region highlighted in purple:



Source: ABx

This programme is to follow up on discovery hole RM302 (top centre white comment box in the above diagram) and as Members can see for this image the assay returned eleven metres graded at 1,700ppm TREO. At eleven metres thick, RM302 returned highly enriched permanent magnet rare earths, with a high concentration of dysprosium and terbium for a combined total of 4.7% of TREO. **ABx considers RM302 to be one of the best rare earths intercepts found to date.** What is exciting about RM302 is its discovery in a first pass drill programme and extends the known mineralisation of the region toward Windbreak. **ABx believe the target area for the region now covers 100km² as it now includes the Windbreak discovery some 16 kilometres away.**

As of 30 June 2023, cash stood at A\$5.9 million and post this date two research and development tax rebates totalling just over A\$1.0 million have been received. **We have no concerns around liquidity.**

We maintain our view the Tasmania rare earths project has the potential to be a major discovery. Its value is enhanced, given the clay was once considered to be a nuisance when mining for bauxite.

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