



20 February 2015

## **ALTECH PRODUCES COMPETITIVE HIGH PURITY ALUMINA (HPA) RESULTS**

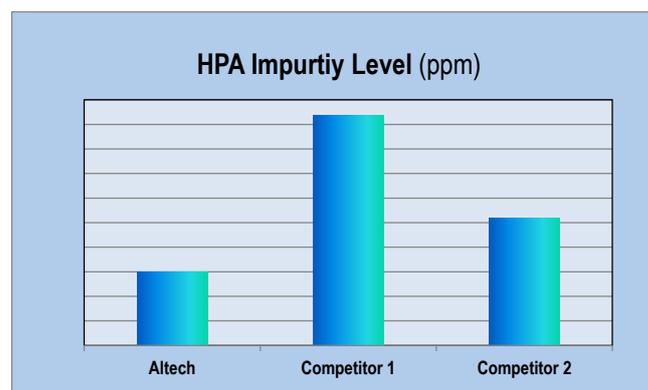
### **Highlights**

- Analysis of Altech's high purity alumina (HPA) samples confirmed lower levels of impurities compared to leading HPA competitors
- Results of test work incorporated into process design for further optimisation

Altech Chemicals Limited (Altech/the Company) (ASX: ATC) is pleased to announce that as part of the Bankable Feasibility Study (BFS) for its high purity alumina (HPA) project, it has successfully completed a further series of laboratory pilot plant test work program (test work), which simulated the proposed HPA processing plant. The test work was completed by its BFS team members, Simulus Engineers/Laboratories and TSW Analytical in Perth, Australia.

The test work involved bulk wet processing of the Meckering aluminous clay; calcination; acid leaching; crystallisation of aluminium chloride; two stages of purification; roasting for acid recovery; and final calcination to produce HPA.

HPA samples produced from the test work and competitor samples were tested by TSW Analytical. The results confirm the quality of Altech's product as better when compared to other HPA samples obtained from leading competitors (refer Graph 1 below).



**Graph 1 - Altech's HPA sample results showed the least amount of impurities compared to a number of competitors' HPA samples**



Figure 1. Laboratory pilot plant test work by Simulus Engineers/Laboratories in Perth, Australia

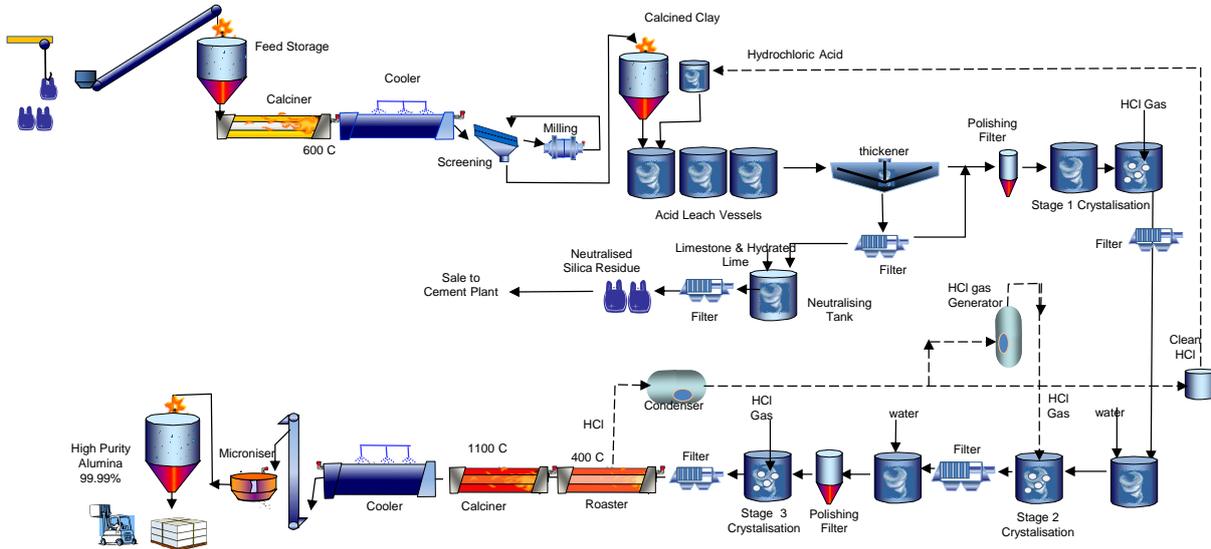
The Company has incorporated the successful test work results into the optimisation of its process design. The optimisation areas include the removal of ion exchange units at the purification stages, replacement of evaporative crystallisation with the simpler HCl gas bubbling for crystallisation of aluminium chloride crystals, and counter current washing of aluminium chloride crystals across the three stages of crystallisation/purification. Removing these units from the Company's HPA process flowsheet has indicated a significant reduction of capital cost, as well as further simplification of the HPA plant.

The Company's HPA process flowsheet also incorporates wet processed filtered beneficiated aluminous clay feed in bulk bags from Western Australia. Overall, Altech's HPA flowsheet has remained essentially unchanged with areas of optimisation incorporated (see Figure 12). These findings have been incorporated into 3D plant designs and plant layouts as part of the BFS (see Figure 3).

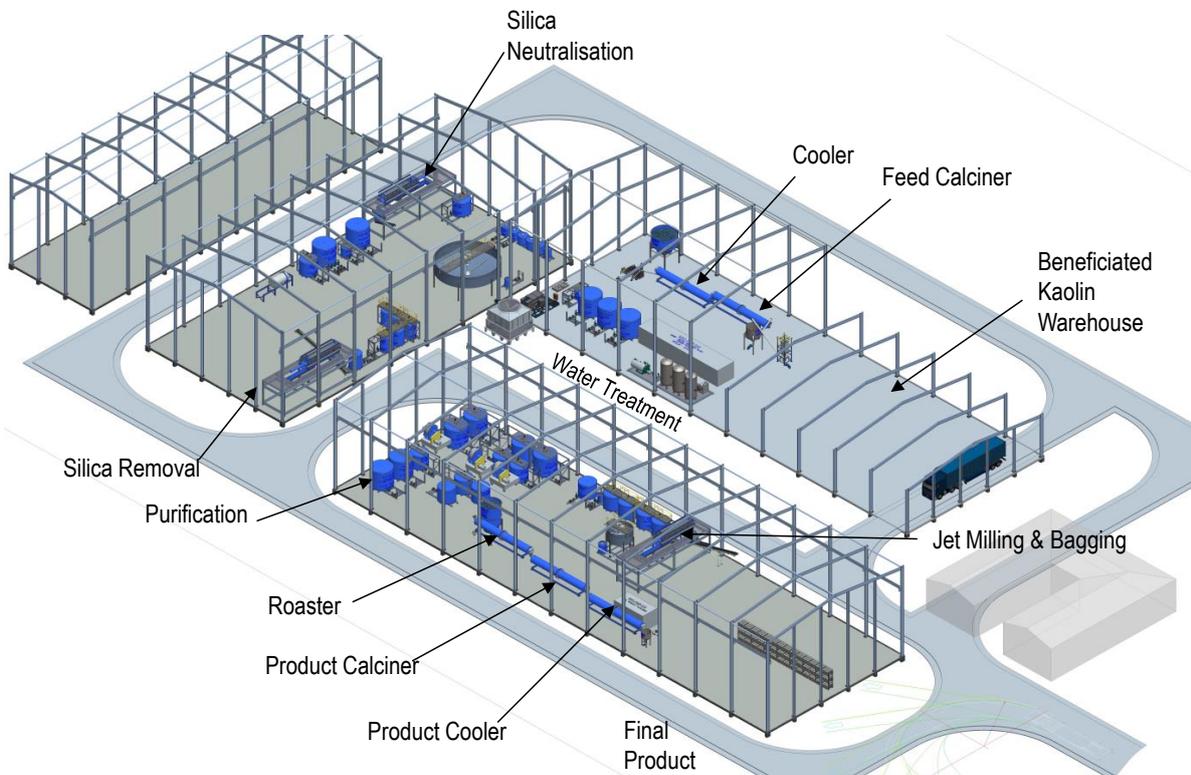


# ASX ANNOUNCEMENT AND MEDIA RELEASE

**Figure 2. HPA Flow Sheet (Malaysia location)**



**Figure 3. HPA Plant Preliminary Layout (Malaysia location)**



Altech's managing director, Mr Iggy Tan, said "we are extremely pleased with the recent outcome of the laboratory pilot plant test work. The testwork results demonstrate that the Altech's "aluminous clay to HPA direct route" process can produce final HPA product that is comparable or better than key competitors in the market. The majority of current HPA producers use aluminium metal as their feedstock, which is a very expensive, in order to meet the final HPA product purity specification. We have continuously demonstrated that our process can meet the final purity specifications through the use of our inexpensive low impurity aluminous clay deposit.

The BFS work is progressing well and on-track to meet the targeted completion timeframe of Q-3, 2015", he concluded.

-Ends-

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#### **About Altech Chemicals (ASX: ATC)**

**Altech Chemicals Limited** (Altech/the Company) is aiming to become one of the **world's leading suppliers of 99.99% (4N) high purity alumina (HPA)** ( $Al_2O_3$ ). HPA is a high-value product because it is the major source material for scratch-resistant artificial sapphire glass. Sapphire glass is used to produce a range of high-performance electronic applications such as LEDs, semi-conductors, phosphor display screens, as well as new emerging products such as smartphones and tablet devices. The global HPA market is approximately 19,040tpa (2014) and is expected to at least double over the coming decade.

Current HPA producers use an expensive and highly processed feedstock material such as aluminium metal to produce HPA. Altech produces 4N HPA directly from an ore feedstock, aluminous clay, from its Meckering deposit in Western Australia. The Company is now advancing a Bankable Feasibility Study (BFS) to develop a full-scale **4,000tpa HPA production** facility. The Altech process employs conventional and proven "off-the-shelf" plant and technology to extract HPA from its **low-cost and low-impurity** aluminous clay feedstock, which results in **lower operating costs**.

Altech is a chemical processing group focused on creating a high-margin product to meet the growing global demand for the next generation of high-performance technologies.



#### **Forward-looking Statements**

This announcement contains forward-looking statements which are identified by words such as 'anticipates', 'forecasts', 'may', 'will', 'could', 'believes', 'estimates', 'targets', 'expects', 'plan' or 'intends' and other similar words that involve risks and uncertainties. Indications of, and guidelines or outlook on, future earnings, distributions or financial position or performance and targets, estimates and assumptions in respect of production, prices, operating costs, results, capital expenditures, reserves and resources are also forward looking statements. These statements are based on an assessment of present economic and operating conditions, and on a number of assumptions and estimates regarding future events and actions that, while considered reasonable as at the date of this announcement and are expected to take place, are inherently subject to significant technical, business, economic, competitive, political and social uncertainties and contingencies. Such forward-looking statements are not guarantees of future performance and involve known and unknown risks, uncertainties, assumptions and other important factors, many of which are beyond the control of our Company, the Directors and management. We cannot and do not give any assurance that the results, performance or achievements expressed or implied by the forward-looking statements contained in this announcement will actually occur and readers are cautioned not to place undue reliance on these forward-looking statements. These forward looking statements are subject to various risk factors that could cause actual events or results to differ materially from the events or results estimated, expressed or anticipated in these statements.