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ASX:FYI | OTC:FYIRF

## FYI AND ALCOA TO COMMENCE EXTENDED HPA PILOT PLANT TRIAL

### Key points

- **FYI and Alcoa Australia to commence extended pilot plant production of HPA**
- **Pilot plant trial designed to demonstrate process improvements and generate bulk HPA for detailed product assessment by potential customers**
- **Data generated from the trial will inform design and detailed engineering for proposed demonstration plant**
- **Trial includes ESG and product traceability focus of HPA production**

FYI Resources Ltd (ASX: FYI) ("FYI" or "the Company") is pleased to announce that FYI and Alcoa Australia Ltd (Alcoa) will undertake an extended high purity alumina (HPA) trial production run at the Company's pilot plant facility in Welshpool, Western Australia. The production run is in alignment with the staged joint development project announced on 1st October 2021.

The objectives of the pilot plant trial include demonstrating processing efficiencies, for the production of high quality, HPA via FYI's innovative and fully integrated process flowsheet. The extended pilot run will produce HPA that will be used for further detailed product qualification and assessment by prospective customers and offtake parties.

A portion of the output will also be used to progress broader applications and downstream opportunities as previously foreshadowed, including HPA anode development (see ASX announcement 8 September 2021).

Pilot plant production is scheduled to commence on 19th October with continuous operations (24 hours per day) for two weeks. A short break will be used to analyse production data before a further two weeks of continuous operations.

The trial run will target 4N purity HPA, however 5N product may also be produced. Any 5N material will be used for research studies in niche downstream development applications.

The trial run will provide FYI and Alcoa with supplementary information including:

- Continued demonstration of the "end to end" efficiency of FYI's innovative HPA refining process;
- Quantification of operational efficiency improvements;
- Data to assist with aligning and improving FYI's ESG goals; and
- Quantified scale up factors and validation of construction materials for proposed demonstration plant.



The key operating parameters for the pilot plant trials include:

Item	Detail
Pilot Plant trial commencement	19th October 2021
Operating schedule	Continuous (24/7) / 2 shifts per day
Operating period	4 weeks total (2 x 2 weeks operating)
Production rate	1.0 Kg per hour (approx)
Target grade	>99.99% Al <sub>2</sub> O <sub>3</sub>

### ESG Focus on FYI HPA Production

FYI is committed to achieving environmentally sustainable production of HPA through its innovative and fully integrated alternative refining process. This commitment is matched with high ESG standards that enable complete product provenance and traceability. Additionally, information generated from the extended pilot plant operations will be used as source data for ESG linked computations, carbon emission reduction and waste characterisation studies which will contribute to potential commercial recycling purposes.

**FYI Resources Managing Director, Mr. Roland Hill stated** "The extended pilot plant trial is an important phase in our HPA project development. We are excited that we are approaching this milestone with Alcoa as it provides us with an ideal opportunity to finalise our initial design and engineering prior to progressing the final engineering phases.

The significant quantity of HPA generated from the pilot plant will support our customer outreach program, including the provision of further assessment material as requested by the various potential off-take parties seeking to undertake detailed qualification studies on our high quality HPA."

This announcement is authorised for release by Roland Hill, Managing Director

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### **About FYI Resources Limited**

FYI's is positioning itself to be a significant producer of 4N and 5N HPA in the rapidly developing high-tech product markets.

FYI applies both an ESG and economic overlay of the Company and its operations to ensure long-term sustainable and shareholder value is created via the development of the Company's innovative, high quality, ultra-pure HPA project.

HPA is increasingly becoming the primary sought-after input material for certain high-tech products principally for its unique properties, characteristics and chemical properties that address those applications high specification requirements such as LED's and other sapphire glass products.

The longer-term driver for HPA, with forecasts of >17% CAGR\*, is the outlook for the burgeoning electric vehicle and static energy storage markets where the primary function is in the use as a separator material between the anode and cathode in batteries to increase power, functionality and safety of the battery cells.

The foundation of the HPA strategy the Company's moderate temperature, atmospheric pressure innovative process flowsheet. The strategy's quality attributes combine resulting in world class HPA project potential.

\* CRU HPA Industry Report 2021

