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## QUARTERLY REPORT FOR THE PERIOD ENDED 31 DECEMBER 2018

### HIGHLIGHTS:

- Commenced Bankable Feasibility Study (BFS) for the Cadoux Kaolin Project
- Positive feedback from meetings with key HPA industry participants in major HPA consumer countries of China, Japan and South Korea
- Trial HPA samples sent to key targeted off-take parties
- New contacts and insights into the HPA markets in East Asia
- Attended Munich International Metals and Mining Conference
- Key meetings with HPA identified R&D groups
- Probable Ore Reserve of 2.89Mt grading 24.4% Al<sub>2</sub>O<sub>3</sub>
- Reserve supports +50 year mine life at 8k tpa HPA final product refining rate

High Purity Alumina (HPA) developer, FYI Resources Limited (ASX: FYI) (the “**Company**” or “**FYI**”), is pleased to release its December 2018 quarterly activity report and Appendix 5B.

FYI's Cadoux Kaolin Project (EL70/4673) is located ~220km northeast of Perth. The Company's integrated HPA strategy is to mine and beneficiate kaolin at the Cadoux project site and transport the beneficiated aluminous clay to Kwinana, ~15km south of Perth, for refining into HPA ahead of export to expanding global markets.

**Commenting on the quarter, FYI Resources CEO Roland Hill said:** “We have had another busy quarter, particularly with the commencement of our Bankable Feasibility Study.

*“The commencement of the BFS for Cadoux follows the excellent outcomes achieved in the pre-feasibility study (PFS) – including an after-tax NPV<sub>10</sub> value of US\$506 million, an internal rate of return (IRR) of 46% (after tax) and annual EBITDA of US\$128m. The PFS also outlined an HPA production scenario of 8,000tpa via a conventional HCl leach and precipitation refining process to produce a high grade (>99.99%) high-value alumina product.<sup>1</sup>*

*During the quarter we met with a number of key HPA industry participants in the major HPA consumer countries of China, Japan and South Korea with positive feedback received.*

*Plans for the current quarter include a very active study schedule on the BFS in terms of continued metallurgical and process engineering refinements for the HPA circuit as well continuing with the broader project development and marketing aspects of the Company's high purity alumina strategy”.*

<sup>1</sup>Refer announcement 25 September 2018

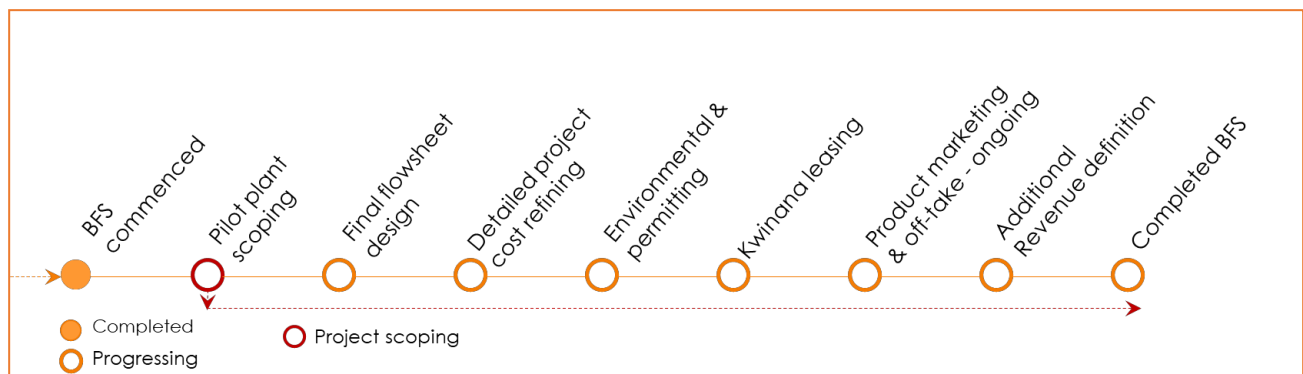
### **Bankable Feasibility Study commenced for Cadoux Kaolin Project**

During the quarter the Company commenced a bankable feasibility study for its wholly-owned Cadoux Kaolin Project located in Western Australia.

FYI retained Australian engineering consulting and contracting company, GR Engineering Services Limited (GRES) to undertake key components of the BFS related to plant design; capital cost and operating cost estimation; and process and non-process infrastructure evaluation.

With sufficient funding in place, and with a number of key permitting milestones already achieved at Cadoux, the BFS is scheduled to be completed by mid-2019 and construction planned to commence in the December quarter 2019 subject to securing suitable off take agreements and project funding. In the meantime, FYI is progressing in parallel with a number of key value-adding development milestones, including:

- Project risk mitigation studies
- Continuation of permitting approvals
- Site selection process at Kwinana for refinery location
- Ongoing discussions with project financing parties and strategic funding parties
- Advancing customers and offtake parties discussions



*Schematic timeline for key milestones under FYI's BFS review*

### **BFS Developments:**

#### **Metallurgical Studies**

The metallurgical studies included:

- Continuous trialling and confirmation of achieved 99.995% HPA product purity;
- Alternative flowsheet production and variation testwork;
- Further optimising of precipitation of intermediary products;
- Further optimisation work surrounding the water balances;
- Re- confirm trials and variation work around key assumptions made in the PFS;
- Further alternative by-product testing for additional revenues;



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## Process Engineering Studies

GRES continued with the refining and definition of the HPA circuit flowsheet and included detailed diagrams and drawings for construction, civil works, instrumentation, control system, electrical facilities, management of suppliers, schedule and sequencing of development activities, further refining of detailed costs, procurement of equipment and management of environmental impacts.

## Cadoux Ore Reserve

FYI announced a Probable Ore Reserve Estimate of 2.89Mt grading 24.4% Al<sub>2</sub>O<sub>3</sub> which should be capable of supporting HPA production for more than 50 years (see table 1 below and ASX announcement 29 October 2018). The Ore Reserve estimate is based on the Indicated Mineral Resource, metallurgical test work, processing and engineering designs, the Kwinana processing plant and associated infrastructure, cost estimation, planning inputs, variables and assumptions, marketing and pricing research, all of which is detailed in the mining section of Company's PFS report (announcement 25 September 2018).

Stage	Probable Ore		Waste kT	Total Mining kT	Strip Ratio
	kT	Al <sub>2</sub> O <sub>3</sub> %			
1	172	24.8	317	489	1.8
2	175	25.1	225	400	1.3
3	175	24.5	255	430	1.5
4	165	22.7	376	541	2.3
5	165	23.4	396	561	2.4
6	192	25.9	290	482	1.5
7	247	26.1	159	406	0.6
8	130	25.5	125	254	1.0
9	92	23.5	167	258	1.8
10	169	25.6	364	533	2.1
11	275	23.0	481	756	1.8
12	347	24.4	535	882	1.5
13	225	24.8	499	724	2.2
14	363	23.5	774	1,137	2.1
All Stages	2,891	24.4	4,961	7,852	1.7

**Table 1: Cadoux maiden Probable Ore Reserve Estimate, October 2018**



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## **CORPORATE**

### **Munich Conference Attendance**

During the quarter the Company attended the Edelmetallmesse (Munich International Metals and Mining Conference), Europe's premier mining and metals conference.

Managing Director Roland Hill attended the conference and met with investors to promote the Company and the HPA industry, meeting with key participants to explore development and marketable prospects.

### **Asia HPA Product Marketing Trip**

The Company also reported positive feedback from meetings held with key HPA industry participants during November in the major HPA consumer countries of China, Japan and South Korea. The visit helped FYI to establish new contacts and provided insights into the HPA markets in East Asia.

The Company and its advisors met with a number of key potential customers in the HPA industry at trader and direct end user level, with the key objectives to:

- Investigate, and seek further clarity and transparency on the regional HPA markets in East Asia;
- Broaden the awareness of the Cadoux HPA project's potential high-grade product, excellent prefeasibility study (PFS) results and strategic +50 year mine life; and
- Further explore commercial opportunities with selected parties, which includes offtake and strategic financing for the Cadoux project.

For a full summary of the outcomes of these meetings, please see ASX announcement dated 19 November 2018.

### **FYI HPA product qualification**

Following positive responses from interested offtake parties during the Marketing Trip and subsequent requests for final product of high purity alumina, FYI despatched trial samples of 99.995% Al<sub>2</sub>O<sub>3</sub> (HPA) to potential customers for test work and qualification.

With the samples having been received over the December quarter and the parties undertaking their independent product analysis and reviews,

### **March quarter activities schedule**

The current work activities are centred on completing the BFS which should confirm the technical viability and robust economics of FYI's HPA strategy and pave the way for near term development.



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The Company has advanced the permitting process, offtake negotiations and funding arrangements in parallel with the BFS and expects these to be finalised during 2019.

FYI has an intensive level of activities planned out for the March quarter. These items include:

- Decision to proceed with pilot plant construction and test work
- Continued BFS project studies and economic reviews
- Capital and operating cost reduction studies
- Responses from customer qualification
- Continued BFS studies
- Kwinana refinery site progress
- Continued project permitting
- Further R&D developments

#### Further information:

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#### About FYI Resources Limited

FYI is positioning itself to be a significant producer of high purity alumina (4N or HPA) in a rapidly developing LED, electric vehicle, smartphone and television screen as well as other associated high-tech product markets.

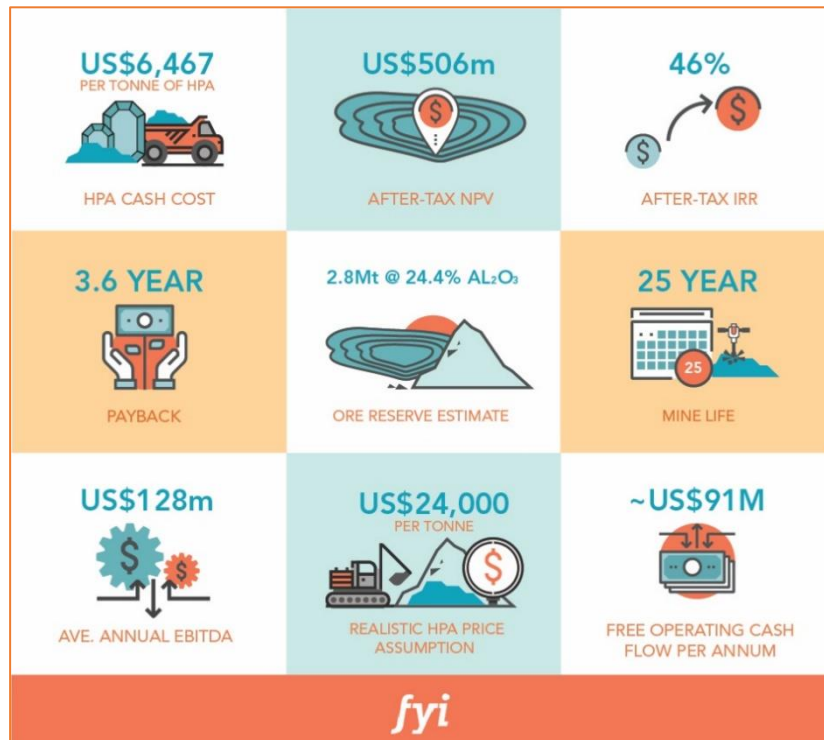
The foundation of FYI's HPA strategy is the quality aluminous clay (kaolin) deposit at Cadoux and the exceptional positive metallurgical response that the feedstock has to the Company's moderate temperature, atmospheric pressure and straightforward HCl flowsheet. The strategy's quality attributes combine resulting in world class HPA project potential.

In September 2018, FYI announced results of its Preliminary Feasibility Study ("PFS") for its Cadoux kaolin project in Western Australia. The PFS confirmed the Company's intention to become a predominant vertically-integrated, long life producer of high quality, sought after high purity alumina ("HPA").

#### Interest in Mineral Tenements at 31 December 2018

Tenement	Location	Interest at the beginning of the quarter	Interest at the end of the quarter
E70/4673	Western Australia	100%	100%
E70/5145	Western Australia	100% (under application)	100% (under application)
WMM SPLs (6)	Thailand	100% (under application)	100% (under application)

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Pre-Feasibility Study highlights from September 2018



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## **Competent Persons Statements**

### **Ore Reserves**

The information in this report that relates to Ore Reserves is based on information compiled by Mr. Steve Craig, who is a Fellow of the Australasian Institute of Mining and Metallurgy. Steve Craig is a full-time employee of Orelogy Consulting Pty Ltd and has sufficient experience relevant to the style of mineralisation and type of deposit under consideration and to the activity which they are undertaking to qualify as a Competent Person as defined in the 2012 Edition of the "Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves". The information is extracted from the Ore Reserve announcement released 29 October 2018 and is available to view on the Company's website at [www.fyiresources.com.au](http://www.fyiresources.com.au).

### **Mineral Resources**

The information in this report that relates to Mineral Resources is based on information compiled by Mr Grant Louw, under the direction and supervision of Dr Andrew Scogings, who are both full-time employees of CSA Global. Dr Scogings is a Member of the Australasian Institute of Mining and Metallurgy and a Member of the Australian Institute of Geoscientists. He is a Registered Professional Geologist in Industrial Minerals. Dr Scogings has sufficient experience relevant to the style of mineralisation and type of deposit under consideration and to the activity which he is undertaking to qualify as Competent Person as defined in the 2012 Edition of the "Australasian Code for the Reporting of Exploration Results, Mineral Resources, and Ore Reserves". The information is extracted from the PFS announcement dated 25 September 2018 and is available to view on the Company's website at [www.fyiresources.com.au](http://www.fyiresources.com.au).

### **Metallurgy**

The information in this report that relates to metallurgy and metallurgical test work is based on information reviewed and compiled by Mr Daryl Evans, a Competent Person who is a Fellow of the Australian Institute of Mining and Metallurgy (AusIMM). Mr Evans is an employee of Independent Metallurgical Operations Pty Ltd, and is a contractor to FYI. Mr Evans has sufficient experience that is relevant to this style of processing and type of deposit under consideration, and to the activity that he has undertaken to qualify as a Competent Person as defined in the 2012 Edition of the "Australasian Code for the Reporting of Exploration Results, Mineral Resources and Ore Reserves". Announcements in respect to metallurgical results are available to view on the Company's website at [www.fyiresources.com.au](http://www.fyiresources.com.au).

The Company confirms that it is not aware of any new information or data that materially affects the information included in the original market announcements and that all material assumptions and technical parameters underpinning the findings in the relevant market announcements continue to apply and have not materially changed and that all material assumptions and technical parameters underpinning the estimate in the relevant market announcement continue to apply and have not materially changed. The Company confirms that the form and context in which the Competent Person's findings are presented have not been materially modified from the original announcement.





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## **Cautionary Statement**

### **Substance of PFS**

The PFS referred to in this announcement is a study of the potential viability of the Cadoux Project. It has been undertaken to understand the technical and economic viability of the Project.

The PFS is based on the material assumptions outlined in the PFS announcement released to ASX on 25 September 2018 and summarised in the Summary of Material Assumptions and Modifying Factors description and tables (appendix 2 and 3) attached to the PFS document. These include assumptions about the availability of funding. While the Company considers all of the material assumptions to be based on reasonable grounds, there is no certainty that they will prove to be correct or that the range of outcomes indicated by this PFS will be achieved.

To achieve the range of outcomes indicated in the PFS funding in the order of US\$197 million will likely be required. Investors should note that there is no certainty that the Company will be able to raise the amount of funding when needed. It is also possible that such funding may only be available on terms that may be dilutive to or otherwise affect the value of the Company's existing shares.

It is also possible that the Company could pursue other "value realisation" strategies such as a sale, partial sale or joint venture of the Project. If it does, this could materially reduce the Company's proportionate ownership of the Project.

Given the uncertainties involved, investors should not make any investment decisions based solely on the results of the PFS.

### **General and forward-looking statements**

The contents of this announcement reflect various technical and economic conditions, assumptions and contingencies which are based on interpretations of current market conditions at the time of writing. Given the nature of the resources industry, these conditions can change significantly and without notice over relatively short periods of time. Consequently, actual results may vary from those detailed in this announcement.

Some statements in this announcement regarding estimates or future events are forward-looking statements. They include indications of, and guidance on, future earnings, cash flow, costs and financial performance. Such forward-looking statements are provided as a general guide only and should not be relied on as a guarantee of future performance. When used in this announcement, words such as, but are not limited to, "could", "planned", "estimated", "expect", "intend", "may", "potential", "should", "projected", "scheduled", "anticipates", "believes", "predict", "foresee", "proposed", "aim", "target", "opportunity", "nominal", "conceptual" and similar expressions are forward-looking statements. Although the Company believes that the expectations reflected in these forward-looking statements are reasonable, such statements involve risks and uncertainties, and no assurance can be given that actual results will be consistent with these forward-looking statements.

The contents of this release are also subject to significant risks and uncertainties that include but are not limited to those inherent in mine development and production, geological, mining, metallurgical and processing technical problems, the inability to obtain and maintain mine licences, permits and other regulatory approvals required in connection with mining and processing operations, competition for among other things, capital, acquisitions of reserves, undeveloped lands and skilled personnel, incorrect assessments of the value of projects and acquisitions, changes in commodity



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prices and exchange rates, currency and interest rate fluctuations and other adverse economic conditions, the potential inability to market and sell products, various events which could disrupt operations and/or the transportation of mineral products, including labour stoppages and severe weather conditions, the demand for and availability of transportation services, environmental, native title, heritage, taxation and other legal problems, the potential inability to secure adequate financing and management's potential inability to anticipate and manage the foregoing factors and risks.

All persons should consider seeking appropriate professional legal, financial and taxation advice in reviewing this announcement and all other information with respect to the Company and evaluating the business, financial performance and operations of the Company. Neither the provision of this announcement nor any information contained in this announcement or subsequently communicated to any person in connection with this announcement is, or should be taken as, constituting the giving of investment or financial advice to any person. This announcement does not take into account the individual investment objective, financial or tax situation or particular needs of any person.