

## Quarterly Report for the period ended 30 September 2019

### Highlights

- Outstanding purity and consistencies achieved from variability test work during commissioning trials for pilot plant.
- Mining lease granted for the Cadoux HPA project
- Lead agency support for Cadoux HPA project received from WA Department of Jobs, Tourism, Science and Innovation
- Second tranche of R&D payment of \$250,000 received – funds used for pilot plant trial production

### Post-quarter end

- FYI's HPA pilot plant trial production successfully completed on 9 October 2019
- FYI conducted pilot plant facility tours for interested groups including HPA end users, commodity trades, project investors and financiers, government representatives and media
- R&D tax incentive rebate payment of \$777,631 received – funds will be directed towards the continued development of the Company's HPA strategy

High Purity Alumina (HPA) developer, FYI Resources Limited (ASX: FYI) (the "Company" or "FYI"), is pleased to release its September 2019 quarterly activity report and Appendix 5B. Commenting on the quarter, FYI Resources Managing Director Roland Hill said: "Successful commissioning of the pilot plant during the quarter is a significant step toward further validation of the Company's HPA strategy. This led into trial production which commenced shortly after the quarter-end. The results from these trials will be vital in verifying FYI's process flowsheet. The pilot plant data will also provide critical inputs for our definitive feasibility study."

### Outstanding Pilot Plant Commissioning Results

Following construction of the pilot plant, FYI announced excellent purity and consistency results from variability test work during commissioning trials (refer announcement 17 September 2019).

As a component of the commissioning of key equipment in FYI's HPA pilot plant circuit, additional test work was conducted on the Cadoux feedstock to ascertain the processing effects of variable grades, deleterious material, etc across the planned mining area. A matrix of feedstock types was tested for characteristics and grade through the pilot plant as part of the commissioning exercise.



HPA produced during FYI's Pilot Plant Production

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The final calcined products from all ten Variability Composite (VC) samples were submitted for high level Glow Discharge Mass Spectrometry (GDMS) analysis at EAG Laboratories in New York, USA for independent, high accuracy, confirmation of HPA grades.

The GDMS results indicated that all composites achieved high purity alumina results above 99.995%Al<sub>2</sub>O<sub>3</sub> (targeted grade was 99.99%Al<sub>2</sub>O<sub>3</sub>) with final product assays ranging from 99.997% to 99.998% Al<sub>2</sub>O<sub>3</sub>.

The assay results indicate that a consistent product grade can be achieved with variable feed inputs into the process. In addition, the range of impurities detected was minimal with only 10 impurity elements being detected via GDMS. Most significant were the very low sodium and iron levels which is a key requirement for potential customers.

The results from the VC testwork demonstrated sound process chemistry and kinetics of the innovative process design which support FYI's broader HPA development strategy in terms of achieving low project capex and opex.

### **Mining Lease Granted for Cadoux**

The mining lease (M70/1388) covering the Cadoux ore reserve for the Cadoux kaolin project has been granted.

The approval was a major step in the Company's development of the HPA project and allows FYI to progress the Cadoux site-based activities and future phases of project development.

### **Lead Agency Support for Cadoux**

During the quarter, the Company received the support of Western Australian Premier, Mr Mark McGowan, in requesting that the WA Department of Jobs, Tourism, Science and Innovation (JTSI), as the Lead Agency for the delivery of the WA government's Future Battery Industry Strategy, provide lead agency services for the Cadoux Project.

JTSI is Western Australia's lead agency for projects (major resource and infrastructure) where the proposed project investment is either substantial or of strategic importance to the State.

### **Second R&D Advance Received**

On 2 July 2019, FYI announced it had received a second payment of \$250,000 advanced against its expected 2019 R&D tax rebate. The funds were used to progress development of the pilot plant and trial production.

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## EVENTS POST QUARTER END

### Pilot plant trial production

On 2 October 2019, FYI announced the commencement of trial production HPA following commissioning of its pilot plant.

The pilot plant ran continuously for 7 days on a 24 hour a day basis to demonstrate "end to end" processing of FYI's HPA process flowsheet.

The trial was successfully completed, with performance matching modelled expectations and all anticipated operating parameters met with the HPA product appearing visually to be of excellent quality.

A short video of the pilot plant in operation may be accessed from the [homepage](#) of the Company's website.

The HPA product will be analysed for quality and grade. It will then be provided to end-user and industry groups to advance discussions regarding product marketing and off-take arrangements.



**Continuous HPA production  
in FYI's HPA Pilot Plant**

The key parameters for the plant were:

Item	Detail
Plant details	Dedicated, purpose built, 3 stage hydrochloric acid leach and precipitation circuit
Trial commenced	2 October 2019
Operating time	Continuous (24/7) / 2 shifts per day
Operating period	1 week
Trial completion	9 October 2019
Plant design	Innovative modular "end to end"
Output	1.0 Kg per hour
Target grade	>99.99% Al <sub>2</sub> O <sub>3</sub>

Following the completion of the pilot plant trial program, the Company held a number of pilot plant tours to strategic groups and media to view FYI's continuous HPA refining process in operation from "end to end" at its purpose-built test facility located in Welshpool, Western Australia.



**A tour group viewing the exterior of FYI's HPA Pilot Plant prior to observing the continuous production**



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Australian and international visitor groups were invited on the basis of their current and/or future involvement and support of FYI's HPA strategy and include potential customers, commodity traders, project investors and financiers, government, researchers, Future Battery Industry representatives and media.

## **Corporate**

### **Cash**

With the major cost projects such as the pilot plant and the locked cycle testwork completed and metallurgical research and development largely accomplished, the Company's previously high cash burn has been reduced significantly.

As at 30 September 2019, FYI had approximately \$147,000 cash at bank. The Company received a R&D tax incentive rebate of \$777,630 during October.

In addition, FYI has a renewed finance facility in place of \$750,000 which may be drawn against the current financial years' rebatable R&D tax amount.

### **Planned December Quarter Activities**

- Receive pilot plant analysis results back from EAG laboratories, USA
- Forward HPA trial product to targeted end-user groups for product qualification and assessment
- Advance project capital funding discussions with financiers and off-take parties
- Completion of the Company's HPA definitive feasibility study (DFS)
- Continued project development at Cadoux and Kwinana

### **For more information please contact:**

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## **About FYI Resources Limited**

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

FYI is progressing positively with its DFS supporting planned production of 4N (99.99%) and 5N (99.999%) HPA.

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### **Interest in Mineral Tenements at 30 September 2019**

<b>Tenement</b>	<b>Location</b>	<b>Interest at the beginning of the quarter</b>	<b>Interest at the end of the quarter</b>
E70/4673	Western	100%	100%
E70/5145	Australia	100%	100%
M70/1388		100%	100%
WMM SPLs (6)	Thailand	100% (under application)	100% (under application)

### **Competent Persons Statements**

#### **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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## Appendix 5B

### Mining exploration entity and oil and gas exploration entity quarterly report

Introduced 01/07/96 Origin Appendix 8 Amended 01/07/97, 01/07/98, 30/09/01, 01/06/10, 17/12/10, 01/05/13, 01/09/16

**Name of entity**

FYI Resources Limited

**ABN**

85 061 289 218

**Quarter ended ("current quarter")**

30 September 2019

Consolidated statement of cash flows	Current quarter \$A'000	Year to date (3 months) \$A'000
<b>1. Cash flows from operating activities</b>		
1.1 Receipts from customers	-	-
1.2 Payments for		
(a) exploration & evaluation	(842)	(842)
(b) development	-	-
(c) production	-	-
(d) staff costs	(60)	(60)
(e) administration and corporate costs	(135)	(135)
1.3 Dividends received (see note 3)	-	-
1.4 Interest received	1	1
1.5 Interest and other costs of finance paid	-	-
1.6 Income taxes paid	-	-
1.7 Research and development refunds	-	-
1.8 Other	-	-
<b>1.9 Net cash from / (used in) operating activities</b>	<b>(1,036)</b>	<b>(1,036)</b>

<b>2. Cash flows from investing activities</b>		
2.1 Payments to acquire:		
(a) property, plant and equipment	-	-
(b) tenements (see item 10)	-	-
(c) investments	-	-
(d) other non-current assets	-	-

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## Mining exploration entity and oil and gas exploration entity quarterly report

<b>Consolidated statement of cash flows</b>		<b>Current quarter \$A'000</b>	<b>Year to date (3 months) \$A'000</b>
2.2	Proceeds from the disposal of:		
	(a) property, plant and equipment	-	-
	(b) tenements (see item 10)	-	-
	(c) investments	-	-
	(d) other non-current assets	-	-
2.3	Cash flows from loans to other entities	-	-
2.4	Dividends received (see note 3)	-	-
2.5	Other (provide details if material)	-	-
<b>2.6</b>	<b>Net cash from / (used in) investing activities</b>	<b>-</b>	<b>-</b>
<b>3.</b>	<b>Cash flows from financing activities</b>		
3.1	Proceeds from issues of shares	-	-
3.2	Proceeds from issue of convertible notes	-	-
3.3	Proceeds from exercise of share options	-	-
3.4	Transaction costs related to issues of shares, convertible notes or options	(6)	(6)
3.5	Proceeds from borrowings	-	-
3.6	Repayment of borrowings	-	-
3.7	Transaction costs related to loans and borrowings	-	-
3.8	Dividends paid	-	-
3.9	Other (advance on R&D tax rebate)	249	249
<b>3.10</b>	<b>Net cash from / (used in) financing activities</b>	<b>243</b>	<b>243</b>
<b>4.</b>	<b>Net increase / (decrease) in cash and cash equivalents for the period</b>		
4.1	Cash and cash equivalents at beginning of period	940	940
4.2	Net cash from / (used in) operating activities (item 1.9 above)	(1,036)	(1,036)
4.3	Net cash from / (used in) investing activities (item 2.6 above)	-	-
4.4	Net cash from / (used in) financing activities (item 3.10 above)	243	243
4.5	Effect of movement in exchange rates on cash held	-	-
<b>4.6</b>	<b>Cash and cash equivalents at end of period*</b>	<b>147</b>	<b>147</b>

## Mining exploration entity and oil and gas exploration entity quarterly report

<b>5. Reconciliation of cash and cash equivalents</b> at the end of the quarter (as shown in the consolidated statement of cash flows) to the related items in the accounts	<b>Current quarter \$A'000</b>	<b>Previous quarter \$A'000</b>
5.1 Bank balances	147	940
5.2 Call deposits	-	-
5.3 Bank overdrafts	-	-
5.4 Other (provide details)	-	-
<b>5.5 Cash and cash equivalents at end of quarter (should equal item 4.6 above)</b>	<b>147*</b>	<b>940</b>

\* An R&D tax incentive rebate of \$777,630 was received in October.

<b>6. Payments to directors of the entity and their associates</b>	<b>Current quarter \$A'000</b>
6.1 Aggregate amount of payments to these parties included in item 1.2	60
6.2 Aggregate amount of cash flow from loans to these parties included in item 2.3	-
6.3 Include below any explanation necessary to understand the transactions included in items 6.1 and 6.2	

Payment of fees to executive and non-executive directors including superannuation.

<b>7. Payments to related entities of the entity and their associates</b>	<b>Current quarter \$A'000</b>
7.1 Aggregate amount of payments to these parties included in item 1.2	-
7.2 Aggregate amount of cash flow from loans to these parties included in item 2.3	-
7.3 Include below any explanation necessary to understand the transactions included in items 7.1 and 7.2	

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## Mining exploration entity and oil and gas exploration entity quarterly report

<b>8. Financing facilities available</b> <i>Add notes as necessary for an understanding of the position</i>	<b>Total facility amount at quarter end \$A'000</b>	<b>Amount drawn at quarter end \$A'000</b>
8.1 Loan facilities	-	-
8.2 Credit standby arrangements	-	-
8.3 Other (advance on estimated R&D tax rebate)	1,100	548
8.4 Include below a description of each facility above, including the lender, interest rate and whether it is secured or unsecured. If any additional facilities have been entered into or are proposed to be entered into after quarter end, include details of those facilities as well.		

The Company has arranged the forward payment of its estimated 2019 R&D tax rebate through Innovative Technology Funding Pty Ltd. The advance is for up to \$1.1 million being 80% of its expected tax rebate resulting from eligible R&D expenditure for the current financial year. The principal and accrued interest (at 15% p.a.) for the facility is repayable out of the actual tax refunded. The facility is for a maximum of 12 months and is secured against the Company's R&D offset rebate.

<b>9. Estimated cash outflows for next quarter</b>	<b>\$A'000</b>
9.1 Exploration and evaluation	(120)
9.2 Development	-
9.3 Production	-
9.4 Staff costs	(90)
9.5 Administration and corporate costs	(60)
9.6 Other (provide details if material)	-
<b>9.7 Total estimated cash outflows</b>	<b>(270)</b>

<b>10. Changes in tenements (items 2.1(b) and 2.2(b) above)</b>	<b>Tenement reference and location</b>	<b>Nature of interest</b>	<b>Interest at beginning of quarter</b>	<b>Interest at end of quarter</b>
10.1 Interests in mining tenements and petroleum tenements lapsed, relinquished or reduced				
10.2 Interests in mining tenements and petroleum tenements acquired or increased				

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**Compliance statement**

- 1 This statement has been prepared in accordance with accounting standards and policies which comply with Listing Rule 19.11A.
- 2 This statement gives a true and fair view of the matters disclosed.

Sign here:



Company secretary

Date: 29 October 2019

Print name: Phillip MacLeod

**Notes**

1. The quarterly report provides a basis for informing the market how the entity's activities have been financed for the past quarter and the effect on its cash position. An entity that wishes to disclose additional information is encouraged to do so, in a note or notes included in or attached to this report.
2. If this quarterly report has been prepared in accordance with Australian Accounting Standards, the definitions in, and provisions of, AASB 6: Exploration for and Evaluation of Mineral Resources and AASB 107: Statement of Cash Flows apply to this report. If this quarterly report has been prepared in accordance with other accounting standards agreed by ASX pursuant to Listing Rule 19.11A, the corresponding equivalent standards apply to this report.
3. Dividends received may be classified either as cash flows from operating activities or cash flows from investing activities, depending on the accounting policy of the entity.