

3rd September 2018

Further outstanding metallurgical results exceed target of 99.99% Al₂O₃

Highlights:

- Independent metallurgical testing of the Cadoux project kaolin feedstock delivers outstanding results, confirming consistent HPA grade that can deliver an intermediate product ranging from **99.996% to 99.997% Al₂O₃**
- Result **exceeded the Company's target grade** of 99.99% Al₂O₃ (4N) and will become the standard intermediate product
- Verification was undertaken by metallurgical laboratory, Metallurgy Pty Ltd from the testwork completed by Independent Metallurgical Operations Pty Ltd (IMO)
- Potential for further upgrading to higher grade product such as 5N HPA

FYI Resources Limited (the “**Company**” or “**FYI**”) is pleased to announce the results of an independent metallurgical analysis for the Cadoux high purity alumina (HPA).

Verification of FYI's HPA grade by metallurgical laboratory, Metallurgy Pty Ltd, confirms a consistent HPA grade for the Company's standard “run of plant” and intermediate product ranging from **99.996% to 99.997% Al₂O₃** achieved from testwork carried out by IMO on feedstock from the 100% owned Cadoux kaolin project. This result exceeds the target grade of 99.99% Al₂O₃ (4N) for the planned standard intermediate product. This will allow scope for upgrading to higher grade products such as 5N HPA.

The results were derived using high accuracy and precision laser ablation and sum of species methodologies; results of the analysis are presented in the table below.

Parameter		Value	Units
Major Metal Impurities	Ca, Cr, Cu, Fe, K, Mg, Na, Ni, Sc, Si, Ti, V	30.118	ppm
Minor Metal Impurities	All others measurable	1.740	ppm
Total Metal Contaminants		31.858	ppm
Chloride		<10	ppm
HPA Purity (Al₂O₃)		99.997	%

FYI's goal for this certified testwork was to independently confirm the quality of the final product (Al₂O₃) that the Company intends to produce commercially under its HPA strategy. The certification reduces product uncertainty and helps to ensure quality control and quality assurance in providing a consistent and reliable product to the market.

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



Commenting on the significant achievement, FYI Managing Director, Mr Roland Hill said: “The independent laboratory results verifying greater than 99.99% HPA are very gratifying from a project development prospective. These excellent results clearly and independently demonstrate that we are on the right path to proving a proprietary HPA flowsheet that supports realisation of a world class commercial strategic commodity refinery. Furthermore, it gives us confidence that additional upgrades to the HPA purity is possible.”



FYI's HPA produced from Cadoux kaolin feedstock (99.997% Al₂O₃)

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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 battery, 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 superior quality attributes combine resulting in world class HPA project potential.



Competent Person statement

Metallurgy:

The information in this release 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). Announcements in respect to metallurgical results are available to view on the Company's website at www.fyiresources.com.au.

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 (The JORC Code). Mr Evans consents to the inclusion of the information in the form and context in which they appear. 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.

Appendix A September 2018

JORC Code, 2012 Edition – Table 1

Section 1 Sampling Techniques and Data

Criteria	Commentary
Sampling techniques	<p>Drilling sampling was previously reported.</p> <p>Metallurgical test work applied to the recovered drilling samples is intended to determine aluminium leach and precipitation characteristics of the kaolin. Sample preparation and metallurgical test work was performed by Independent Metallurgical Operations Pty Ltd (IMO) in Perth, Western Australia.</p>
Drilling techniques	Previously reported (ASX: 9.7.2018).
Drill sample recovery	Previously reported (ASX: 9.7.2018).
Logging	Previously reported (ASX: 9.7.2018).
Sub-sampling techniques and sample preparation	<p>Drilling sampling was previously reported (ASX: 9.7.2018).</p> <p>The sampling techniques for the metallurgical test work was in line with industry standards in determining composite samples representative of the resource. This included drying and splitting of individual samples and then compositing into representative samples.</p> <p>The sampling procedures were under the control of qualified and experienced IMO employees and considered adequate for the intended metallurgical test work.</p> <p>Master composite samples were prepared representing the Cadoux resource with alumina feed grades ranging from 21.5% to 21.2%.</p> <p>The composites underwent a stage of attritioning with the products screened to generate fine and coarse size fractions.</p> <p>The fine attritioned product underwent one stage of calcination to convert kaolin clay to metakaolin.</p> <p>The calcined product was leached with hydrochloric acid at temperature.</p> <p>The leach liquor underwent a series of precipitation stages, involving hydrogen chloride gas being sparged through the leach liquor allowing the precipitation of solid aluminium chloride.</p> <p>Conversion of the final solid aluminium chloride to alumina involved a two stage calcination process with the final product achieving 99.997% Al₂O₃ purity.</p>

Criteria	Commentary
	<p>Sizes and representative nature of the samples is considered appropriate.</p> <p>All procedural work and preparation was conducted under strict controls and supervision. All testwork was conducted under test conditions by qualified and experienced technicians and overseen by qualified managers including Mr Alex Borger and Mr Daryl Evans (Independent Metallurgical Operations Competent Person).</p>
Quality of assay data and laboratory tests	<p>Analysis for the leach test work was deemed appropriate for the detailed test work as it was undertaken in laboratory environment with precision equipment and included worldwide accepted controls.</p> <p>Metallurgical reviews and testwork has been overseen and approved by Mr Alex Borger – Metallurgical Project Manager and Metallurgical Competent Person – Mr Daryl Evans.</p>
Verification of sampling and assaying	<p>The metallurgical test work was supervised by suitably qualified personnel under laboratory conditions.</p> <p>Primary data is captured on paper in the laboratory and then re-entered into spreadsheet format by the supervising metallurgist, to then be loaded into the company’s database.</p> <p>No adjustments are made to any assay data.</p>
Location of data points	All samples used in the metallurgical test work have been accurately recorded by the laboratory technician and checked by the supervising metallurgist.
Data spacing and distribution	Industry standard sample distribution and source material representation methodology has been applied.
Orientation of data in relation to geological structure	Industry standard sample distribution and source material representation methodology has been applied. The risk of sample bias is considered to be low.
Sample security	All samples were under supervision at the laboratory. All residual sample material is stored securely in sealed bags.
Audits or reviews	Mr Evans has reviewed QAQC results and found these to be acceptable.

Section 2 Reporting of Exploration Results

Criteria	Commentary
Mineral tenement and land tenure status	Previously reported (ASX: 9.7.2018).
Exploration done by other parties	Previously reported (ASX: 9.7.2018).

Criteria	Commentary
Geology	The project area is underlain by weathered granitoid Archaean rock of the Yilgarn Granites is the likely parent material for the kaolin. Here, deep weathering of the feldspathic and ferromagnesian minerals within the metamorphosed granitic has resulted in the formation of kaolinite. There is no outcrop but recognizable granitoid fragmental rocks are sometimes present just below surface. The crust of the overburden comprises gravel and sands over reddish to off white clay. White kaolin underlies the overburden followed by weathered, partial oxidised and then fresh granitoids at depth. The recent drilling at the property has revealed a weathering profile which is very common in Western Australia with the granitoid rocks, deeply weathered forming a leached, kaolinized zone under a lateritic crust. Analysis at the Laboratory shows particle size distributions are typical of "primary style" kaolins produced from weathered granites. The crust of overburden comprises gravel and sands over reddish to off-white clay to an average depth of 5m. White kaolin then averages approximately 16 m before orange to yellow sandy and mottled clays are intersected which are followed by recognizable rounded granitoid material. The thickness of the kaolin profile varies from less than 1m to a maximum of 22m. Fresh granitoids are found at depths of between 10 and 30m. All kaolin resources are within 4 to 11 metres of the surface. 75 Reverse circulation drillholes were completed with a total of 1,613m drilled. All holes were drilled vertically. Intersected kaolin thickness ranged from 4-28m.
Drill hole Information	Sample and drill hole coordinates are provided in market announcements.
Data aggregation methods	The nature of the metallurgical testwork did not require data aggregation, however all data points were noted and recorded in the appropriate data base to be used in follow up test work.
Relationship between mineralisation widths and intercept lengths	Previously reported (ASX: 9.7.2018).
Diagrams	Project related diagrams are presented in various previous ASX announcements.
Balanced reporting	The reporting is considered to be balanced.
Other substantive exploration data	<p>Metallurgical test-work is being conducted on composite kaolin samples by IMO. IMO are following a standard diagnostic flowsheet template to determine aluminium leaching and precipitation characteristics of the kaolin.</p> <p>The test work involves the following procedure of composited samples of the recent drilling program (see FYI ASX announcement dated 9th June 2018)</p> <p>The sample was calcined at for one hour to convert the Kaolin to an acid soluble species. The sample was then leached in 26% (w/w) Hydrochloric acid at 20% solids and 100°C for 180 minutes with samples being collected to provide kinetic leach recoveries.</p>

Criteria	Commentary
	<p>Leach testing was conducted in a glass leach vessel containing concentrated feed sample scalped at 106 μm and concentrated industrial grade hydrochloric acid.</p> <p>Leach testing was conducted at the stated temperatures controlled by a thermocouple (calibrated against an alcohol thermometer) with the heating source of a heat plate.</p> <p>The glass leach vessel utilised for testing incorporated a reflux condenser to allow leach testing to be conducted at ambient pressure whilst maintaining the water balance.</p> <p>Solids assays from leach testing were conducted utilising sodium peroxide fusion XRF of pulverised material with duplicate samples, standards and blanks.</p> <p>Solids assays from precipitation and calcination testing were conducted utilising lithium borate fusion XRF and Laser Ablation – Mass Spectrometry with duplicate samples, standards and blanks.</p> <p>Solution assays were conducted by ICP-MS on diluted leach samples with duplicate samples, standards and blanks.</p>
Further work	Continued metallurgical variability test work and PFS is ongoing and will be announced to the market shortly – key testwork will include bulk leaching, precipitation and calcination to prepare representative HPA product as part of the development of the process flowsheet and as input to the PFS.