



31 October 2018

QUARTERLY REPORT FOR THE PERIOD ENDED 30 SEPTEMBER 2018

HIGHLIGHTS:

- ✓ Outstanding Cadoux Pre-Feasibility Study results support high-purity alumina development
- ✓ Maiden Ore Reserve Estimate (ORE) of 2.89Mt grading 24.4% Al₂O₃ demonstrates project quality
- ✓ The ORE supports a mine life of +50 years at 8,000tpa high purity alumina (HPA) production rate
- ✓ FYI will progress to Bankable Feasibility Study which is fully funded and expected to be complete by June 2019
- ✓ Metallurgical testwork produces HPA ranging from 99.996% to 99.997% Al₂O₃
- ✓ Environmental study finds low impact for mine development, suggesting a straightforward permitting process
- ✓ Positive marketing visit to China completed

High Purity Alumina (HPA) developer, FYI Resources Limited (ASX: FYI) (the "Company" or "FYI"), is pleased to release its September 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: "The September quarter has been a significant period of delivery and de-risking with the successful deliver of our Pre-Feasibility Study (PFS).

"The PFS demonstrated we are in the attractive position of potentially becoming a major, long-life, low cost and high margin HPA producer. We were extremely pleased by the outstanding economics which were a result of realistic basket pricing and a production profile that is likely to meet the forecasted industry demand growth as a result of the electric vehicle revolution.

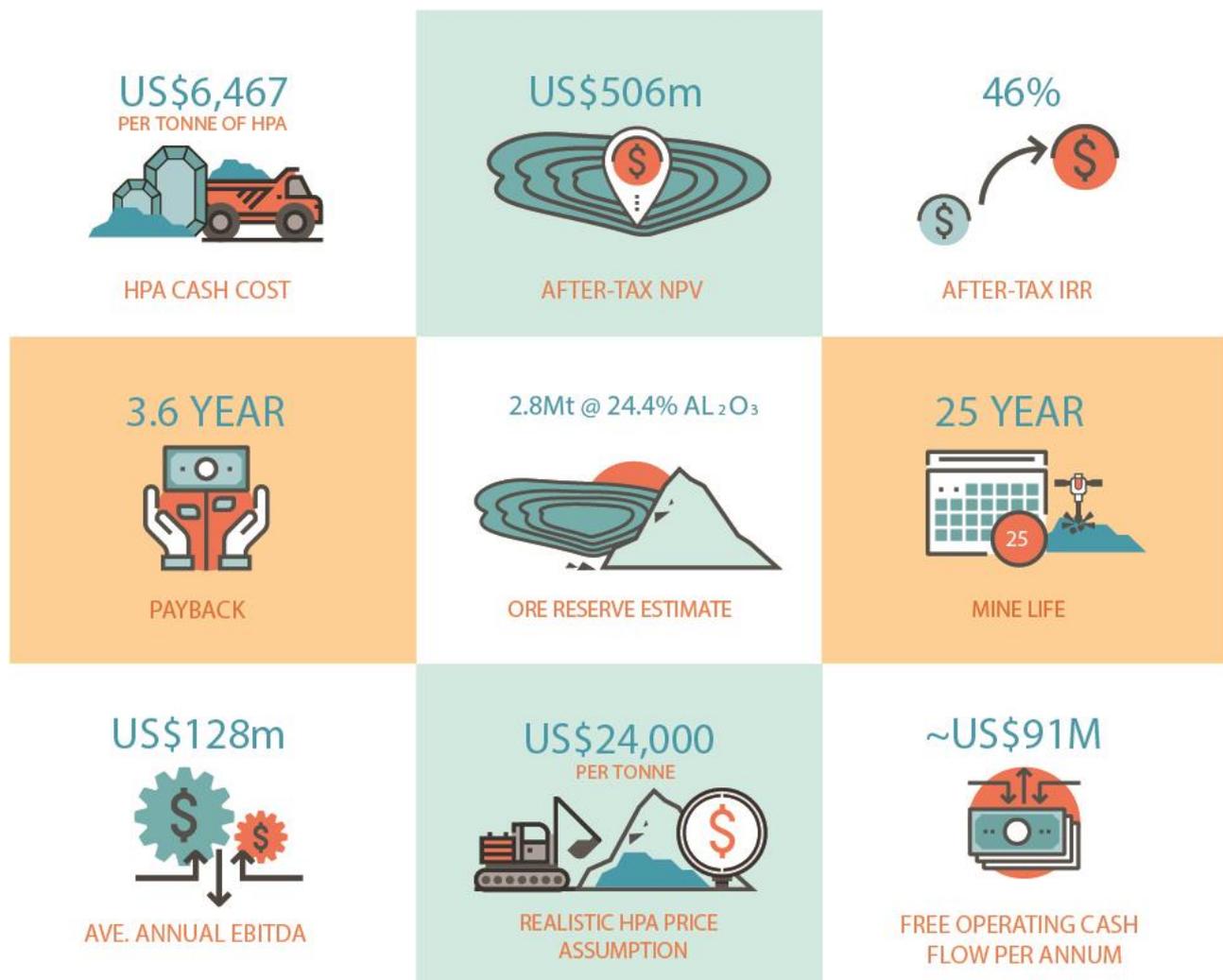
"The PFS leveraged a number of competitive advantages of the Cadoux Kaolin Project from a geology and mineralogy perspective which result in excellent flowsheet recoveries and efficiencies. We demonstrated the delivery of 99.997% Al₂O₃ which was independently verified, a result of extensive metallurgical testwork and associated development of the flowsheet suited specifically to the Cadoux kaolin feedstock. Importantly, we also demonstrated we can deliver the highest quality HPA from our kaolin which effectively future proofs the company as markets are likely to increasingly shift towards higher quality concentrates.

We now look forward to advancing discussions with industry participants for potential offtake and financing and towards the completion of a BFS."

Pre-Feasibility Study returns outstanding results

In late September, FYI announced results of the 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 (refer ASX announcement 25 September 2018).

PFS results indicated the Project could produce up to 8,000 tonnes per annum of HPA with both low capital and operating costs, delivering an NPV_(10%) of US\$506 million for a 25-year project life from >50-year kaolin supply at an attractive IRR of 46%.



Key metrics of the PFS included:

- Integrated beneficiation and refining project targeting production of 8,000 tonnes per year of HPA, with processing of Cadoux feedstock to be completed at the proposed new battery metals centre in Kwinana, where kaolin will be directly refined into HPA, all in Western Australia;
- After-tax NPV_(10%) US\$506 million, IRR of 46%, payback period of 3.6 years;
- Steady state EBITDA of US\$128 million annually with average annual after-tax cash flow of US\$90.7 million;
- A capital intensity of US\$22,344/t capacity installed;
- PFS modelled on a 25-year project life with a +50 year mine life;
- Competitively positioned total project capex of US\$179 million (including owner's costs and contingencies);
- HPA operating costs of US\$6,467/t;
- Production profile designed to meet the forecast industry demand growth of ~ 17% CAGR;



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- Sale price assumption of US\$24,000 per tonne delivering an operating margin of ~US\$17,500 per tonne;
- Proposed construction to commence in Q4 CY2019, with a construction period of 18 months;
- Exceptional metallurgical test work with a low risk flow sheet and conventional technology selected for beneficiation; and
- Upside opportunities include potential to produce 5N (99.999% purity) which should receive a premium to 4N price and the addition of High Purity Quartz (HPQ) by-product production which may improve project economics for limited additional capital.

FYI is in discussions with industry participants with the potential to provide financing as part of an offtake agreement and or in addition to traditional means of debt and equity financing.

The Company plans to initiate a Bankable Feasibility Study (BFS) whilst progressing negotiations with industry participants for potential offtake as a part of de-risking its production profile. The BFS is expected to be complete in the first half of 2019 and is fully funded.

The Company should benefit from a number of activities already completed during the PFS including a more detailed Mining Study, Environmental and Permitting commenced, and initial HPQ studies.

More detail from the PFS is available in the ASX Announcement dated 25 September 2018.

Cadoux maiden ore reserve

On 29th October 2018, FYI announced a maiden Ore Reserve Estimation (ORE) for its Cadoux kaolin project of 2.89Mt grading 24.4% Al₂O₃, providing an initial mining campaign of more than 50 years mine life of high-grade kaolin production at Cadoux.

Table 1: Cadoux Probable Ore Reserve Estimation, October 2018

Stage	Probable Ore		Waste kT	Total Mining kT	Strip Ratio
	kT	Al ₂ O ₃ %			
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

The Ore Reserve included the information provided in the previous MRE (see ASX announcement 25 September 2018) and includes data from FYI's reverse circulation (RC) drilling program concluded in May 2018 (see ASX announcement 25 June 2018). The ORE focused on the Indicated material of the Cadoux resource highlighted in the plan below.



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Whilst the ORE estimates a mine life of more than 50 years, financial modelling for the project has been completed on the basis of a 25-year life with various operational and financial sensitivities analysed to confirm that the project generates positive economical returns and has a reasonable likelihood of success.

The Company's maiden ORE is designed to support the recently released Cadoux PFS, and provides greater confidence in the mining schedules and economic assumptions of the Cadoux project.

Outstanding metallurgical results

Results of independent metallurgical analysis by Metallurgy Pty Ltd for Cadoux confirmed consistent HPA grade could deliver a product ranging from 99.996% to 99.997% Al₂O₃ (refer ASX announcement 3 September 2018). These results were achieved from testwork carried out by Independent Metallurgical Operations (IMO) on feedstock from Cadoux and exceeded the target grade of 99.99% Al₂O₃ (4N purity) for the planned standard intermediate product. This provides FYI 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.

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.

Process flowsheet optimisation

FYI provided a summary outline of its optimised high purity alumina (HPA) process flowsheet designed specifically for the kaolin feedstock from its Cadoux project (refer ASX announcement 18 September 2018).

FYI successfully completed development and optimising of its processing flowsheet for refining of HPA from Cadoux kaolin feedstock as part of its PFS metallurgical testwork. The independently verified recovery grade of 99.997% Al₂O₃ announced in September is a result of significant metallurgical testwork and associated development of the flowsheet suited specifically to the Cadoux kaolin feedstock. This demonstrated excellent response from the Cadoux kaolin to achieve high purity, which is expected to positively impact on the capital and operating costs of the project.

FYI's HPA flowsheet development is specifically engineered towards Cadoux's unique geology, mineralogy and physical characteristics and, whilst the process for the production of HPA from aluminous clay has been known since the 1940s, this flowsheet is substantially different to a "standard" HCl leach and precipitation process.

Advantages of this process design are:

- Utilisation of "off-the-shelf" items and equipment that should reduce capital expenditure as well as reducing equipment construction and delivery times;
- Effective and efficient;
- Expected lower operating costs from rate and ease of chemical process; and
- Better than anticipated processing time for the entire multiple stage circuit.

FYI's processing flowsheet was successfully tested on all the mineralised zones of the Cadoux deposit; however, FYI targeted a selected resource area for the initial operations (the focus area of the revised mineral resource estimate) which should provide an excellent source of feedstock for the first several decades of processing.



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FYI, through its HPA process consultants IMO and GR Engineering Services, will continue to refine the metallurgical flow sheet during the various development phases to enhance process efficiencies and further reduce Capex and Opex costs.

Positive environmental study

Findings of environmental and base line studies conducted on the Cadoux kaolin project by Botanica Consulting Pty Ltd as a precursor to the project permitting phases for Cadoux project suggested a straightforward permitting process.

The project is likely to have a low annual mining rate (average 150,000t waste and ore) supported by a small operational footprint, minimising the disturbance area. The project area is close to existing required infrastructure such as power, water and phone lines and is 1km from a major sealed regional road and rail line. The benefit of this infrastructure in terms of permitting and capital expenditure is considered to be significant.

The study considered hydrology, flora, fauna, Native Title and Aboriginal heritage, European heritage, infrastructure and reserves, acid mine drainage, and a mine closure plan.

Details of the findings are in the ASX Announcement dated 27 August 2018.

Mining study

Orelogy Consulting Pty Ltd is managing a mining trade-off study for FYI's Cadoux project. This study is usually a component of a more detailed bankable feasibility study, however FYI decided to bring the mining component forward to integrate with other components of the PFS.

As the Cadoux kaolin project is expected to have a low annual tonnage / high value product, the mining trade-off study reviewed a range of alternatives for the expected small material movements and potential product specifications to identify the optimal site-based operations.

Orelogy determined the optimal operating philosophy is to:

- Excavate ore and overburden from and backfill pits on a campaign basis using contract mining to minimise mining operating costs. The size and frequency of the campaigns would optimise product stockpiling, product quality, waste dumping and pit excavations;
- Establish a dedicated permanent fleet to manage stockpiles and any product rehandling required. This smaller fleet would operate on a similar roster basis to that of other site-based crews to maximise labour synergies;
- Develop cost effective mine scheduling and operations for the unusually low volume mining, incorporating minimal adverse environmental impacts;
- Minimising capital expenditure leveraging off the site's natural advantages; and
- Investigate additional potential by-product revenue streams.

The review identified an approach which would allow FYI to efficiently manage product specification and optimise site operations and ongoing site rehabilitation requirements whilst potentially developing an additional high value revenue stream.



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Cadoux's operational parameters suggest the emphasis of the mining trade-off study be developed with a distinctive mining and beneficiation model focused on optimising operational flexibility and control of feedstock quality as well as maximising project cashflows. Key advantages identified include:

- A mining schedule of approximately 150,000 tpa (waste + ore) average per year
- Campaign mining / block beneficiation / continual processing
- Small owner fleet for rehandling and by-product / additional revenues
- Multiple operating pits for selective mining and product quality control management
- Unique mining schedule and beneficiation roster for extremely low volumes / low cost operations
- Infrastructure and mine scheduling to support a long mine life (current resource capable of supporting > 50 years production)
- Progressive waste backfilling and rehabilitation practice with no expected requirement for a tailings dam and low non-acid forming mine waste.

CORPORATE

HPA marketing

During the quarter, FYI management visited China, South Korea and Japan, meeting with a number of participants in the HPA sector to gain insight into their product specifications, characteristics and supply, the demand and the pricing metrics for the high value 4N (99.99%) and 5N (99.999%) Al₂O₃ products.

Given HPA is generally seen as a developing niche product with non-transparent trading characteristics, FYI has engaged with a speciality metals advisory group with deep relationships into the markets of China, Taiwan, Korea and other Asian producers and consumers of HPA.

According to commodity market analysis group, Commodity Research Unit, the HPA market should experience continued strong industry growth from its traditional markets such as high-performance LED substrates, sapphire glass related products (electronic screens) but also be further positively impacted by the global uptake in electric vehicles and other emerging battery / power storage applications which require high specification HPA in the separator component between the anode and cathode of the power cells (LIB separators).

FYI's investigations regarding the HPA pricing outlook suggest that a range between US\$20 – 30/kg for 99.99% purity HPA with evidence that it likely to increase with increasing demand from an evolving market.

Information from the visit was included in FYI's PFS released in September.

Issue of shares to Kokardine Kaolin vendors

Following the release of a positive PFS for the Cadoux project and a Probable Ore Reserve supporting a +50-year mining life at Cadoux, FYI's Directors have agreed, with the approval of shareholders, to issue the final 10 million shares to the vendors of Kokardine Kaolin Pty Ltd and the Cadoux kaolin project.

Details for the approval of the proposed issue are in the notice of annual general meeting.

Notice of AGM

FYI has issued a notice for its annual general meeting to be held at the HLB Mann Judd Boardroom, Level 4, 130 Stirling Street, Perth on 27 November 2018 at 9am (Perth time).



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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 the HPA strategy is the superior 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 superior quality attributes combine resulting in world class HPA project potential.

Interest in Mineral Tenements at 30 September 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)
ESM SPLs (6)	Thailand	100% (under application)	Nil



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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 announcements dated 23 and 29 October 2018 and are available to view on the Company's website at 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.

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. 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.

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. 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.



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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 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 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.