

## **QUARTERLY REPORT**

March 2022

#### OUTSTANDING PRELIMINARY FEASIBILITY STUDY FOR SILUMINA ANODES<sup>™</sup> BATTERY MATERIALS PROJECT

- Highly positive preliminary feasibility study for 10,000tpa Silumina Anodes<sup>™</sup> project
- Low capital cost (US\$95 million) with outstanding economics
- Pre-tax Net Present Value (NPV<sub>8</sub>) of US\$507 million
- Attractive Internal Rate of Return (IRR) of 40%
- Site in Saxony, Germany already purchased
- Green accredited project using renewable energy
- European high quality graphite and silicon supply
- Pilot plant engineering for product qualification underway
- NDA executed with two German automakers and one European battery maker

#### KÜTTNER ENGINEERING AWARDED BATTERY MATERIALS PILOT PLANT CONTRACT

- Küttner appointed as pilot plant engineering contractor
- Strong experience in delivering metallurgical plant projects
- Final pilot plant engineering to start immediately, ahead of procurement and construction

#### JOHOR HPA PROJECT FINANCE UPDATE

- Green bond offering reach out phase recently completed
- More than 80 groups registered interest to receive offering documentation
- Detailed due diligence and data room reviews have commenced
- Project equity process running in parallel with green bond offer

#### APPOINTMENT OF JOINT COMPANY SECRETARY

- CFO Mr Martin Stein appointed as joint Company Secretary
- Mr Shane Volk to continue in role as joint Company Secretary

#### SIGNIFICANT INCREASE IN KAOLIN RESOURCE AT KERRIGAN

- Recent drilling program yields fresh kaolin resource data at Kerrigan tenement
- Inferred Resource of 125 million tonnes of kaolin reported
- 47% increase in the kaolin tonnage compared to previous estimates

ALTECH CHEMICALS LIMITED www.altechchemicals.com

#### OUTSTANDING PRELIMINARY FEASIBILITY STUDY FOR SILUMINA ANODES<sup>™</sup> BATTERY MATERIALS PROJECT

During the quarter, the Company announced the outstanding results from a Preliminary Feasibility Study (PFS) for the development of a 10,000tpa silicon/graphite alumina coating plant, in Saxony, Germany. The plant would be constructed by Altech Industries Germany GmbH (AIG), (ownership: 75% Altech, 25% Frankfurt stock exchange listed Altech Advanced Materials AG (AAM)), and would produce high capacity silicon/graphite battery anode materials "Silumina Anodes<sup>™</sup> products are targeted to supply the burgeoning European electric vehicle market.

With a capital investment of US\$95 million, the Company estimates a project net present value of US\$507 million (NPV<sub>8</sub>), with net cash of US\$63 million per annum generated from operations. The internal rate of return is estimated at 40%, with investment capital paid back in approximately 3.1 years. Total annual revenue at the 10,000tpa full rate of production is estimated US\$185 million per annum.

Managing Director, Mr Iggy Tan, stated "Whilst Altech's top priority continues to be financing its Johor HPA project, the Silumina Anodes<sup>™</sup> project represents an exciting downstream opportunity to utilise its HPA coating technology in silicon/graphite battery materials. We are pleased and excited about the results of the 10,000tpa Silumina Anodes<sup>™</sup> PFS. Due to the attractive economics of the study, a decision has been made by the AIG board to immediately progress to a definitive feasibility study (DFS) for the project. AIG has already purchased land in Germany suitable for the project, and the plan is for the AIG team in Saxony to immediately commence DFS work. We believe that the production of Silumina Anodes<sup>™</sup> materials could be a game changing technology for the lithiumion battery industry".

Tesla, a global leader in the electric vehicle and lithium-ion

battery industry, has declared that the required step change to increase lithium-ion battery energy density and reduce costs is to introduce silicon in battery anodes, as silicon has ~ten times the energy retention capacity compared to graphite. Silicon metal has been identified as the most promising anode material for the next generation of lithium-ion batteries. However, until now, silicon was unable to be used in commercial lithium-ion batteries due to two critical drawbacks. Firstly, silicon particles expand by up to 300% in volume during battery charge, causing particle swelling, fracturing and ultimately battery failure. The second challenge is that silicon deactivates a high percentage of the lithium ions in a battery. Lithium ions are rendered inactive by the silicon, immediately reducing battery performance and life. Industry has been in a race to crack the silicon barrier.

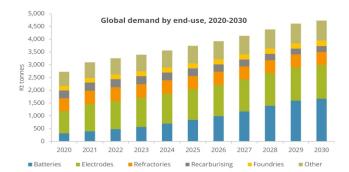
Through in-house research and development, Altech announced late last year that it has cracked the "silicon code" and successfully achieved 30% higher energy retention in a lithium-ion battery, with improved cyclability and battery life. Higher density batteries result in smaller, lighter batteries and substantially less greenhouse gases, and are destined for the EV market. To achieve its breakthrough, Altech successfully combined silicon particles that had been treated with its innovative and patented alumina coating technology, with alumina coated battery grade graphite, producing the Silumina Anodes<sup>™</sup> product. So far, the major drawbacks outlined above for using silicon in lithium-ion battery anodes, have been substantially overcome with Altech's Silumina Anodes<sup>™</sup> product.

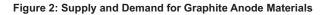
The European graphite and silicon feedstock supply partners for AIG's plant in Saxony will be SGL Carbon GmbH (SGL) and Ferroglobe Innovation S.L. (Ferroglobe), respectively. The project has already received green accreditation from the independent Norwegian Centre of International Climate and Environmental Research (CICERO). To support the development, AIG has commenced construction of a pilot plant in Germany, at a location adjacent to the proposed site of 10,000tpa plant. Product from the pilot plant will be provided to potential buyers, such as automakers, to fast-track the Silumina Anodes<sup>™</sup> product qualification process. AIG already has nondisclosure agreements (NDAs) in place with two German automakers, as well as with a European based lithium-ion battery manufacturing company.

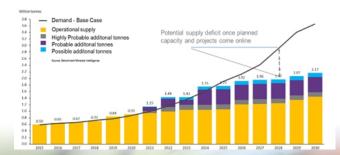
## **GLOBAL GRAPHITE MARKET**

Altech's Silumina Anodes<sup>™</sup> material would be a premium product compared to the graphite used in current lithium-ion batteries, so tracking graphite demand is sound proxy to establish potential demand for the Silumina Anodes<sup>™</sup> products. Global demand for graphite is estimated to grow at 18% each year to 2030. Market forecaster Roskill predicts that global graphite demand from battery makers will grow to a total of 1.7 million tonnes per annum (blue and green in Figure 1). Benchmark Mineral Intelligence forecast that planned production capacity and projects in development will not be able to meet this growing demand by as early as 2025 (refer to Figure 2).

#### Figure 1: Global Demand Forecast by End User, 2020-2030







## **EUROPEAN GRAPHITE MARKET**

Altech's Silumina Anodes<sup>™</sup> strategy is to solely supply to the European battery and electric vehicle sector. According to the European Union Commission, the European Union could produce enough batteries by 2025 to power its fast-growing fleet of electric vehicles without relying on imported cells.

As part of its plan to become climate neutral by 2050, the EU wants to boost local production of the building blocks for green industries and batteries to power clean vehicles. Today, China hosts approximately 80% of the world's lithium-ion cell production, but Europe's capacity is set to expand rapidly. Europe has 15 large-scale battery cell factories under construction, including Swedish company Northvolt's plants in Sweden and Germany, Chinese battery maker CATL's German facility, and South Korean firm SK Innovation's second plant in Hungary.

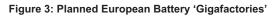
The EU Commission said that by 2025, planned European facilities would produce enough cells to power at least 6 million electric vehicles. Whilst the coronavirus pandemic has seen overall car sales plummet, combined sales of battery and plugin hybrid cars in Europe are expected to roughly double this year, to one million units, according to the NGO Transport & Environment.

With the Commission expecting 13 million low-emission vehicles on Europe's roads by 2025, further investments will be needed. The EU's 750 billion euro (\$890 billion) coronavirus recovery fund was a "ready-made tool" to support projects. The Altech strategy fits into the domestic supplies of the raw materials needed to make lithium-ion battery cells in Europe. As estimated by Roland Zenn, lithium-ion battery cell manufacturing capacity already under construction in Europe amounts to 600GWh annually by 2030 (See Figure 3).

Calculated graphite demand using the Roland Zenn data, the Roskill data and Pansonic data, estimate the demand for graphite anode for Europe alone is to rise to around 600,000tpa by 2030. Market pricing for high quality, carbon coated graphite used in the manufacture of lithium-ion EV batteries is in the range of US\$10,000 to US\$12,000 per tonne.

Europe's electrification goal in 2025 is strongly dictated by local

automakers' electrification plans. Roskill's base-case scenario is predominantly driven by the EV manufacturing plans of the top six largest automakers in Europe that currently comprise 72% of market share by sales volume. When considering the top six automakers, with the assumption that their respective market shares will be maintained until 2025, EV penetration would reach 41%.



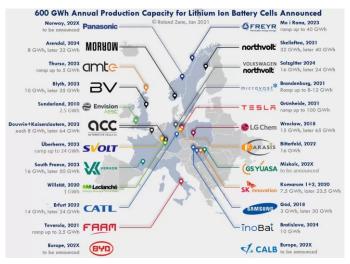
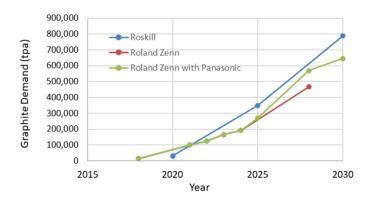


Figure 4: Demand for Graphite Anode Materials in Europe



## SILICON GRAPHITE ENERGY CAPACITY

One of the main barriers limiting future Li-ion battery improvements in the areas of vehicle range, battery weight, charging speed and cost, is the inherent energy capacity and performance of graphite as the anode material. Graphite anode material has a theoretical capacity of 372 mAh/g, and a volumetric capacity of approximately 700 mAh/cc, and takes up more space than any other component in the battery cell. As a result, many believe the next breakthrough in Li-ion battery technology will relate to anode performance, and specifically, replacement of graphite with ultra-high capacity silicon metal.

Silicon anodes have a theoretical capacity of 3,579 mAh/g, and a volumetric capacity of approximately 2,100 mAh/cc, meaning the mass and volume of anode material required to construct an equivalent kWh battery pack is significantly reduced. This equates to important reductions of the \$/kWh costs of the Li-ion battery, reduced battery weight or extended vehicle range capability. Another major benefit is that thinner silicon anodes will enable much faster charging; thinner electrodes enable lithium ions to reach anode particles much faster. This decrease in the ion diffusion time results in significant improvements in charge speed.

Despite the significant performance improvements offered by high capacity silicon anodes, Li-ion battery manufacturers are yet to adopt their use in large volumes due to a number of critical technical challenges. Silicon anodes undergo volumetric expansion of 300% when reacting with lithium ions during charging, and a corresponding 300% contraction during battery discharge. In contrast, graphite expansion/contraction is in the order of 7%. Such changes in the anode volume result in fracture and pulverisation of the large silicon particles typically used, and damage to the passivating nature of the SEI, increasing lithium-ion loss and resulting in a rapid loss of battery capacity. Most of the development in silicon anodes to date has focussed on nano-sized particles which do not build up sufficient mechanical stress to fracture, and also the blending of relatively small amounts of silicon into existing graphite anode products to achieve relatively modest capacity increases.

### HIGH PURITY ALUMINA (HPA) COATING TECHNOLOGY

There is extensive research and literature in the field that demonstrate the use of alumina coatings in graphite applications. Alumina coated graphite has been shown to improve battery cycle and safety performance.



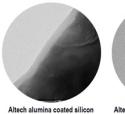
Western Australia Laboratory Test Work

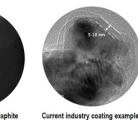
## **COATING METHODS**

There are several methods with which alumina coating can be applied to a graphite or silicon surface. This includes atomic layer deposition (ALD), solid method and hydrothermal method. In general, it has been suggested that ALD is costly and complex, and not suitable for mass production processes. Other coating methods such as hydrothermal and mechano-chemical processes have been developed but have significant drawbacks such as low yield or poor coating uniformity. However, some liquid coating methods such as the Altech coating technology have demonstrated a simple and low-cost treatment method.

Altech believes that the encapsulation of silicon particles via the application of a nano layer of alumina can resolve these issues for cheaper larger Si particles (See Figure 5). The Company believes that its technology will be a "game changer", which would pave the way for increased lithium-ion battery energy density, battery lifespan and reduced first cycle lithium loss.

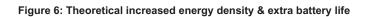
#### Figure 5: Altech alumina coating on Silicon and Graphite

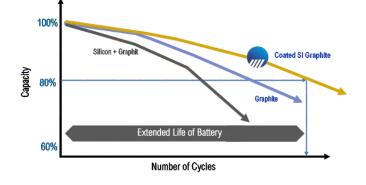


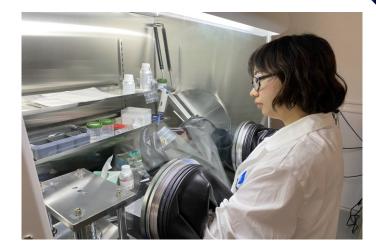


Altech alumina coated graphite

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## PLANT LOCATION - SAXONY GERMANY

The selected project site is within the Schwarze Pumpe Industrial Park (ISP), which straddles the border between the federal states of Brandenburg and Saxony, approximately 120 km from Berlin and only 78 km from Dresden.

## SILUMINA ANODES<sup>™</sup> PROCESS

The Silumina Anodes<sup>™</sup> plant is designed for production of 10,000 tonnes per annum (tpa) of battery material coated with 99.99% high purity alumina. Battery materials, such as battery grade graphite and silicon anode feedstock, are received at the coating plant. The purified aluminium precursor solution is used to coat the materials and calcined into a 2 nanometre layer through a series of confidential steps and processes.



## FINANCIAL MODELLING

Pre-Tax NPV for the Silumina Anodes<sup>™</sup> project is US\$507 million, at a discount rate of 8%. The internal rate of return (IRR) is calculated to be 40%, with a payback of capital of approximately 3.1 years. Annual average earnings before interest, tax, depreciation and amortisation (EBITDA) for the project at full production is estimated to be US\$63 million per annum. The capital costs for the Silumina Anodes<sup>™</sup> plant are estimated at US\$95.0 million at a EUR/USD exchange rate of 0.83. Annual revenue at the full rate of production (10,000tpa) is US\$185.0 million. This is based on a long term FOB price for Silumina Anodes<sup>™</sup> providing the same energy unit price as conventional graphite products. Production costs including all chemical processing, corporate overheads and sales costs are estimated at US\$ 122 million per annum.

A summary of the key financial metrics and key assumptions within the PFS is set in the tables below.

#### Table 1: Project Financial Model Summary Outputs

	US Per Annum		
Annual Production	10,000	tonnes	
Exchange Rate	0.83	EUR/USD	
Project Capex	95	million	
Opex p.a.	122	million	
NPV	507	million	
Discount Rate	8.0	%	
Payback (real)	3.1	years	
IRR	40	%	
Revenue p.a.	185	million	
EBITDA p.a.	63	million	

## **CAPITAL COSTS ESTIMATION**

AIG has assessed its capital estimate for the Silumina Anodes<sup>TM</sup> plant to be accurate to  $\pm$  30% and can be defined as an Engineering Study Class Estimate (AACE Class 4).

#### Table 2: Project Capital Cost Estimate

	Capital Cost USD		
Plant	69.5 million		
Contingency	13.9	million	
Insurances	3.1million7.0million1.2million		
Commissioning			
Land			
Total	95.0 million		

## **ELECTRICITY SUPPLY COSTS**

The Schwarze Pumpe facility plans to be operated using 100% green electricity. This is most commonly provided to industrial consumers by way of power purchase agreements (PPUs), or by the supply of Guarantees of Origin (GoOs) as part of a supply agreement with any of the energy retailers in the market. Due to the nature of the Silumina Anodes<sup>™</sup> plant demand, with high availability requirements for its nominal load, GoOs are proposed as the most appropriate method to purchase green electricity supply to the plant.

## EUROPEAN FEEDSTOCK SUPPLY

Two Memorandum of Understanding (MoU) have been executed by AIG with two European based suppliers of lithiumion battery grade anode materials. For graphite, Altech has executed a MoU with SGL Carbon GmbH (SGL), one of the leading producers of graphite in Europe. SGL Carbon is supporting AIG's development of high purity alumina coated graphite materials targeted for use by the lithium-ion (Li-ion) battery industry. In addition, the non-binding MoU details the potential future relationship whereby SGL would supply uncoated synthetic graphite anode material to the battery materials plant in Saxony. The indicative, non-binding volumes and prices set out in the MoU have been adopted in the PFS financial model. SGL Carbon is a world leader in the development and production of carbon-based solutions and reported sales of 919 million Euros in 2020. For silicon, AIG have a supply MoU with Ferroglobe Innovation S.L. (Ferroglobe), a leading producer of high purity metallurgical silicon in Europe. The executed non-binding MoU details the relationship whereby Ferroglobe would supply silicon anode material to the Silumina Anodes<sup>™</sup> plant in Saxony. Ferroglobe is a leading producer of silicon metal with a proven ability to create new solutions and applications using state-of-the-art technology to drive innovation. It has technologies to produce high purity grade silicon, and is specifically developing tailor made silicon powders for the anode of lithium-ion batteries.

The MoUs executed with both SGL and Ferroglobe not only ensure the future supply of high-quality feedstocks suitable for the Silumina Anodes<sup>™</sup> process, but also align with the objective to minimise the plant's carbon footprint and overall environmental impact.



Altech directors The Right Hon. Prince Yaacob Khyra and Mr Uwe Ahrens inspecting the German site for the Silumina Anodes<sup>™</sup> pilot plant

## SILUMINA ANODES<sup>™</sup> PILOT PLANT

AIG has commenced engineering of a pilot plant, to be constructed in Germany, to demonstrate Altech's proprietary Silumina Anodes<sup>™</sup> technology. The pilot plant is designed to produce up to 36,680 kilograms of anode grade coated Silumina Anodes<sup>™</sup> per year (120 kg per day).

The pilot plant design is intended for installation in the Dock3 facility adjacent to Altech's designated site at the Schwarze Pumpe Industrial Park (see Figures 8 and 9). Altech has secured approximately 300m<sup>2</sup> of floorspace within the Dock3 where the pilot plant will be located. Also, an on-site analytical laboratory is planned for the pilot plant. The laboratory will allow for the rapid assessment of pilot plant product purity and monitor physical parameters which will enable changes in processing parameters and operational setpoints to be modified quickly, as required. The Dock3 space is already connected to all required utilities and includes office space for the project and operations team.

Production from the Silumina Anodes<sup>™</sup> pilot plant shall be used to confirm the Altech process consistently achieves product purity requirements, optimise equipment design and process parameters for a full scale 10,000tpa production plant, and to produce qualification samples for any potential joint venture offtake partners and end users.

> AIG Project Manager Mr Carsten Baumeister and Altech directors The Right Hon. Prince Yaacob Khyra and Mr Uwe Ahrens inspecting the German site for the Silumina Anodes<sup>™</sup> pilot plant

German engineering firm Küttner GmbH & Co. KG (Küttner) has been awarded the contract for final plant engineering of the Silumina Anodes<sup>™</sup> pilot plant, to be constructed in Saxony, Germany. Küttner have completed engineering work, with procurement of long lead items already underway. The pilot plant is designed to produce 120kg per day of coated battery anode material, which will be made available to selected European battery manufacturers and auto-makers. Küttner is a German-based industrial plant engineering and EPC contractor, with strong experience in design, procurement, project and construction management and plant commissioning across a range of industries. They have previously completed metallurgical plant, water and off-gas treatment projects in Germany. Küttner bringing valuable local knowledge to the execution of the project.







## SILUMINA ANODES<sup>™</sup> PRODUCT

Altech has registered the product name Silumina Anodes<sup>™</sup> for its alumina coated composite silicon/graphite lithium-ion battery anode material. Based on AIG's test work, its Silumina Anodes<sup>™</sup> product is expected to provide for the manufacture of battery anodes, that when incorporated into a lithium-ion battery, result in a battery that has higher energy retention capacity by volume and weight compared to a battery using the incumbent graphite only battery anode. The key differentiation point of Silumina Anodes<sup>™</sup> is that it will be a composite material of silicon and graphite particles that have been coated with alumina, using Altech's proprietary alumina coating technology.

## GREEN ACCREDITATION OF SILUMINA ANODES<sup>™</sup> PROJECT

A CO<sub>2</sub> footprint assessment of the proposed 10,000tpa plant determined that, when compared to the incumbent lithium-ion battery technology that uses a graphite only anode, coated silicon anode material could result in a CO<sub>2</sub> emissions reduction of ~19% where 5% coated silicon is used in a battery anode, and a reduction of up to ~ 52% if 20% coated silicon was used (refer Table 3).



## \*CICERO Medium Green



# Silumina An, des™

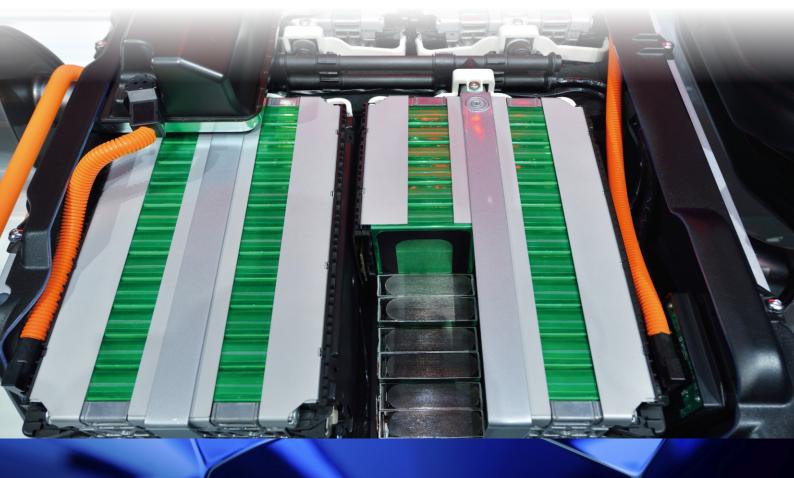
Table 3: Estimaged reduction in  $\mathrm{CO}^2$  footprint from use of coated silicon in Lithium-ion battery anode

Silicon Content %	Reduction in CO₂ footprint in LIB (equivalent power)
5%	18.7%
10%	34.9%
15%	44.9%
20%	51.8%

## KUTTNER ENGINEERING AWARDED BATTERY MATERIALS PILOT PLANT CONTRACT

During the quarter, the Company announced that German engineering firm Küttner GmbH & Co. KG (Küttner) has been awarded the contract for final plant engineering of the battery materials coating pilot plant, to be constructed in Saxony, Germany by Altech Industries Germany GmbH (AIG). Küttner commenced engineering work, with procurement and construction of the pilot plant to follow. The pilot plant is designed to produce 120kg per day of coated battery anode material, which will be made available to selected European battery manufacturers and auto-makers. Küttner is a German-based industrial plant engineering and EPC contractor, with strong experience in design, procurement, project and construction management and plant commissioning across a range of industries. They have previously completed metallurgical plant, water and off-gas treatment projects in Germany. Küttner bringing valuable local knowledge to the execution of the project.

As announced by the Company on 1st February 2022, preliminary design of the battery materials coating pilot plant is now complete. The appointment by AIG of Küttner as the pilot plant engineering contractor is the next step in the development of the plant at the Dock3 facility, in Saxony Germany, and to progress the Company's ground-breaking technology to produce alumina coated battery anode materials.



## JOHOR HPA PROJECT FINANCE UPDATE

The Company provided an update on the proposed ~US\$144 million listed green bond offering and additional project equity, which in combination would provide the balance of funds required for the recommencement of construction of its Malaysian high purity alumina (HPA) project.

#### **GREEN BOND**

Altech continues to work with London based structuring agent Bedford Row Capital Plc (Bedford Row) and Perth based Bluemount Capital (WA) Pty Ltd (Bluemount), to finalise its green bond offering. Project financial, legal, environmental, social & governance (ESG) due diligence has successfully concluded, and legal counsel from various jurisdictions have also completed their respective reviews of documentation. An initial bond offering "reach out" phase to potential subscribers was recently completed, and more than 80 groups registering interest to receive the offering documents. Access to the project data room has been provided to a number of these groups for detailed due diligence and potential subscriber due diligence is ongoing. Detailed presentations and individual discussions are being scheduled on request, and these are expected to continue for some time.

Altech is aiming to raise US\$144m from the bond issue (Series 2021-F3 Notes), of which US\$100m will be used as secondary debt for construction of its Johor HPA plant, with the balance of US\$44m to service bond interest during the HPA plant's construction phase. The bonds would be issued by Sustainable Capital Plc, a company incorporated in United Kingdom as a dedicated green bond issuance platform. In terms of security, the bonds will be subordinate to the senior project finance of US\$190m that is committed from German government owned KfW IPEX-Bank.

#### **PROJECT EQUITY**

In parallel with the bond offering, Altech is progressing the additional equity component of its HPA project funding requirement. US based global investment bank DelMorgan & Co. (Del Morgan) was appointed by Altech in mid-2021 to manage this process for potential North American investors. Del Morgan is a specialised investment bank that has over \$300 billion of successful transactions across 75 countries. The Bank has experience over the last 30 years, successfully concluding various project funding transactions around the globe.

In late 2021, DelMorgan completed its detailed project familiarisation and due diligence process, and it recently commenced a targeted marketing and reach out process to potential equity investors.

Distribution of comprehensive corporate presentation packs is now underway, and Altech is conducting detailed briefings to potential subscribers, as requested. Also, as with the green bond offering, project data room access has been provided to a number of interested parties to assist them with their respective due diligence activities. Altech is aiming to identify a 49% equity partner to provide US\$100m of equity funding as a project level investment.

Artist's impression of the Johor HPA production plant

### APPOINTMENT OF JOINT COMPANY SECRETARY

Altech appointed Mr Martin Stein as joint Company Secretary, effective from 9 March 2022. Mr Stein continues in his role as CFO. Mr Stein has considerable experience with company secretarial, governance and regulatory compliance, and throughout his career, has held the position of Company Secretary with several ASX listed companies. Mr Stein is a Fellow of the Governance Institute of Australia and holds a Graduate Diploma of Applied Corporate Governance. Mr Shane Volk continues in his role and will act as joint Company Secretary.

### SIGNIFICANT INCREASE IN KAOLIN RESOURCE AT KERRIGAN

During the quarter, the Company announced that a recent Geos Mining Mineral Resource Estimate (MRE), based on the Kerrigan kaolin, reported an Inferred Resource of 125 million tonnes at an ISO brightness of 85.2%. This is a significant increase (47%) on the previous Geos Mining 2011 estimate of 85 million tonnes at an ISO brightness of 85.1%. The updated resource estimate is based on latest drilling completed throughout the deposit in order to verify some of the earlier drilling and obtain samples for further test work and analysis.

The Kerrigan deposit is located 20 km south of the central wheatbelt town of Hyden, Western Australia and sits within exploration licence E70/4718-I, that covers an area of approximately 480 km<sup>2</sup>. The licence was granted in 2015 and is 100% owned by Altech.

Managing Director Iggy Tan stated "Currently the kaolin feedstock required for the Johor high-purity alumina (HPA) is sufficiently supplied from our 100% owned Meckering deposit, which has a life of mine of more than 250 years. The Kerrigan kaolin project has been developed as a separate stand-alone kaolin project which the Company will be looking to divest should an attractive offer be forthcoming<sup>17</sup>.

The current Mineral Resource Estimate (Table 4) reports an increase in kaolin tonnage of 47% when compared to the previous estimate determined by Geos Mining in 2011 which estimated 85 million tonnes of kaolin.

Geos Mining consider that the reasons for the increased tonnage are:

- Additional drilling data that has improved confidence in the previous results and has confirmed the overall global resource
- Some barren or low grade areas were able to be modified
- The revised geological interpretation indicates additional continuity of mineralisation

#### Table 4: Kerrigan Resource Estimage from 2020 Aircore Drilling Campaign

Brightness Range (%)	Volume (m <sup>3</sup> )	Bulk Density		Brightness (%)
80-85	35,140,113	1.6	56,224,180	83.3
85-90	43,281,263	1.6	69,250,020	86.8
		TOTAL	125,474,200	85.23

## **NEW WEBSITE**

Altech has launched a new website at **www.altechchemicals.com** to include updated project information around the Silumina Anodes<sup>™</sup> project in Saxony, Germany.





## **QUARTERLY REPORT**

March 2022

#### **Company Snapshot**

Altech Chemicals Limited (ASX:ATC) (FRA:A3Y) ABN 45 125 301 206

#### FINANCIAL INFORMATION

(as at 31 March 2022)	
Share Price:	\$0.087
Shares:	1,392m
Options:	172.3m
Performance Rights:*	30.0m
Market Cap:	\$121m
Cash:	\$11.5m

#### DIRECTORS

Luke Atkins	Non-executive Chairman
lggy Tan	Managing Director
Peter Bailey	Non-executive Director
Dan Tenardi	Non-executive Director
Tunku Yaacob Khyra	Non-executive Director
Uwe Ahrens	Alternate Director
Hansjoerg Plaggemars	Non-executive Director

#### CHIEF FINANCIAL OFFICER Martin Stein

COMPANY SECRETARIES Shane Volk Martin Stein

#### **HEAD OFFICE**

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www.altechchemicals.com \*subject to vesting conditions

#### FORWARD-LOOKING STATEMENTS

This announcement contains forward looking statements that involve a number of risks and uncertainties. These forward-looking statements are expressed in good faith and believed to have a reasonable basis. These statements reflect current expectations, intentions or strategies regarding the future and assumptions based on currently available information. Should one or more risks or uncertainties materialise, or should underlying assumptions prove incorrect, actual results may vary from the expectations, intentions and strategies described in this announcement. The forward-looking statements are made as at the date of this announcement and the Company disclaims any intent or obligation to update publicly such forward looking statements, whether as the result of new information, future events or results or otherwise.

#### **COMPETENT PERSONS STATEMENT**

The information in this announcement that relates to Mineral Resources at the Kerrigan Project is based on information reviewed by Ms Sue Border. Ms Border is the Principal Advisor of Geos Mining and is a Fellow of the Australasian Institute of Mining and Metallurgy. Ms Border has sufficient experience that is relevant to the style of mineralisation under consideration to qualify as a Competent Person as defined in the 2012 Edition of the "Australasian Code for Reporting on Exploration Results, Mineral Resources and Ore Reserves". Ms Border consents to the inclusion in this announcement of the matters based on the information in the form and context in which it appears.

#### SCHEDULE OF TENEMENTS

As per ASX Listing Rule 5.3.3, the Company held the following tenements (exploration and mining leases) as at 31 March 2022:

Tenement ID	Registered Holder	Location	Project	Grant Date	Interest end of quarter
E70/4718-I	Canning Coal Pty Ltd	WA Australia	Kerrigan	01/12/2015	100%
M70/1334	Altech Meckering Pty Ltd	WA Australia	Meckering	19/05/2016	100%

Exploration activities undertaken by the Company during the quarter ended 31 March 2022, were confined to the examination of samples from drilling that was undertaken at the Company's Kerrigan kaolin deposit in 2020.

#### RELATED PARTY TRANSACTIONS (APPENDIX 5B – ITEM 6.1)

The amount shown in the item is for the payment of directors fees (inclusive of superannuation, where applicable), to the Company's managing director, non-executive directors and alternate director, during the quarter.

## Appendix 5B

## Mining exploration entity or oil and gas exploration entity quarterly cash flow report

Name of entity	
ALTECH CHEMICALS LTD	
ABN	Quarter ended ("current quarter")
45 125 301 206	31 March 2022

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Con	solidated statement of cash flows	Current quarter \$A'000	Year to date (9 months) \$A'000
1.	Cash flows from operating activities		
1.1	Receipts from customers	-	-
1.2	Payments for		
	(a) exploration & evaluation	-	-
	(b) development	-	-
	(c) production	-	-
	(d) staff costs	(883)	(1,732)
	(e) admin, corporate and R&D costs	(1,068)	(2,469)
1.3	Dividends received (see note 3)	-	-
1.4	Interest received	53	167
1.5	Interest and other costs of finance paid	-	-
1.6	Income taxes paid	-	-
1.7	Government grants and tax incentives	242	242
1.8	Other (provide details if material)	-	-
1.9	Net cash from / (used in) operating activities	(1,656)	(3,792)

2.	Cash flows from investing act	ivities	
2.1	Payments to acquire or for:		
	(a) entities	-	-
	(b) tenements	-	-
	(c) property, plant and equipment	(35)	(337)
	(d) exploration & evaluation	(101)	(245)
	<ul> <li>(e) investment in Altech Advanced Materials AG</li> </ul>	-	(1,714)
	(f) other non-current assets		-

Con	solidated statement of cash flows	Current quarter \$A'000	Year to date (9 months) \$A'000
2.2	Proceeds from the disposal of:		
	(a) entities	-	-
	(b) tenements	-	-
	(c) property, plant and equipment	-	-
	(d) investments	-	-
	(e) 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)	-	-
2.6	Net cash from / (used in) investing activities	(136)	(2,296)

3.	Cash flows from financing activities		
3.1	Proceeds from issues of equity securities (excluding convertible debt securities)	-	10,331
3.2	Proceeds from issue of convertible debt securities	-	-
3.3	Proceeds from exercise of options	836	1,070
3.4	Transaction costs related to issues of equity securities or convertible debt securities	-	(410)
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 (Lease repayments)	(15)	(43)
3.10	Net cash from / (used in) financing activities	821	10,948

4.	Net increase / (decrease) in cash and cash equivalents for the period		
4.1	Cash and cash equivalents at beginning of period	12,557	6,729
4.2	Net cash from / (used in) operating activities (item 1.9 above)	(1,656)	(3,792)
4.3	Net cash from / (used in) investing activities (item 2.6 above)	(136)	(2,296)
4.4	Net cash from / (used in) financing activities (item 3.10 above)	821	10,948

Consolidated statement of cash flows		Current quarter \$A'000	Year to date (9 months) \$A'000
4.5	Effect of movement in exchange rates on cash held	(15)	(18)
4.6	Cash and cash equivalents at end of period	11,571	11,571

5.	Reconciliation of cash and cash equivalents at the end of the quarter (as shown in the consolidated statement of cash flows) to the related items in the accounts	Current quarter \$A'000	Previous quarter \$A'000
5.1	Bank balances	11,541	12,527
5.2	Call deposits	30	30
5.3	Bank overdrafts	-	-
5.4	Other (provide details)	-	-
5.5	Cash and cash equivalents at end of quarter (should equal item 4.6 above)	11,571	12,557

6.	Payments to related parties of the entity and their associates	Current quarter \$A'000
6.1	Aggregate amount of payments to related parties and their associates included in item 1	(158)
6.2	Aggregate amount of payments to related parties and their associates included in item 2	-
	f any amounts are shown in items 6.1 or 6.2, your quarterly activity report must incluc ation for, such payments.	le a description of, and an

7.	<b>Financing facilities</b> Note: the term "facility' includes all forms of financing arrangements available to the entity. Add notes as necessary for an understanding of the sources of finance available to the entity.	Total facility amount at quarter end \$A'000	Amount drawn at quarter end \$A'000
7.1	Loan facilities	-	-
7.2	Credit standby arrangements	-	-
7.3	Other (please specify)	-	-
7.4	Total financing facilities	-	-
7.5	Unused financing facilities available at qu	arter end	-
7.6	Include in the box below a description of each facility above, including the lender, interest rate, maturity date and whether it is secured or unsecured. If any additional financing facilities have been entered into or are proposed to be entered into after quarter end, include a note providing details of those facilities as well.		

8.	Estim	nated cash available for future operating activities	\$A'000
8.1	Net ca	sh from / (used in) operating activities (item 1.9)	(1,656)
8.2		ents for exploration & evaluation classified as investing es) (item 2.1(d))	(101)
8.3	Total r	elevant outgoings (item 8.1 + item 8.2)	(1,757)
8.4	Cash a	and cash equivalents at quarter end (item 4.6)	11,571
8.5	Unuse	d finance facilities available at quarter end (item 7.5)	-
8.6	Total a	available funding (item 8.4 + item 8.5)	11,571
8.7	Estim item 8	ated quarters of funding available (item 8.6 divided by 5.3)	6.59
	Note: if the entity has reported positive relevant outgoings (ie a net cash inflow) in item 8.3, answer item 8.7 as "N/A". Otherwise, a figure for the estimated quarters of funding available must be included in item 8.7.		
8.8	If item 8.7 is less than 2 quarters, please provide answers to the following questions:		
	8.8.1 Does the entity expect that it will continue to have the current level of net operating cash flows for the time being and, if not, why not?		
	Answe	er:	
	8.8.2 Has the entity taken any steps, or does it propose to take any steps, to raise further cash to fund its operations and, if so, what are those steps and how likely does it believe that they will be successful?		
	Answer:		

8.8.3	Does the entity expect to be able to continue its operations and to meet its business objectives and, if so, on what basis?
Answe	er:

Note: where item 8.7 is less than 2 quarters, all of questions 8.8.1, 8.8.2 and 8.8.3 above must be answered.

#### **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.

Date: 29 April 2022



Authorised by: MARTIN STEIN - CFO & COMPANY SECRETARY

#### On behalf of the Board of Directors

#### Notes

- 1. This quarterly cash flow report and the accompanying activity report provide a basis for informing the market about the entity's activities for the past quarter, how they have been financed and the effect this has had on its cash position. An entity that wishes to disclose additional information over and above the minimum required under the Listing Rules is encouraged to do so.
- 2. If this quarterly cash flow 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 cash flow 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.
- 4. If this report has been authorised for release to the market by your board of directors, you can insert here: "By the board". If it has been authorised for release to the market by a committee of your board of directors, you can insert here: "By the [name of board committee – eg Audit and Risk Committee]". If it has been authorised for release to the market by a disclosure committee, you can insert here: "By the Disclosure Committee".
- 5. If this report has been authorised for release to the market by your board of directors and you wish to hold yourself out as complying with recommendation 4.2 of the ASX Corporate Governance Council's *Corporate Governance Principles and Recommendations*, the board should have received a declaration from its CEO and CFO that, in their opinion, the financial records of the entity have been properly maintained, that this report complies with the appropriate accounting standards and gives a true and fair view of the cash flows of the entity, and that their opinion has been formed on the basis of a sound system of risk management and internal control which is operating effectively.