

30 October 2023

QUARTERLY ACTIVITIES REPORT

Quarter Ended 30 September 2023

Emerging mineral processing technology company, Zeotech Limited (ASX: ZEO, "Zeotech" or "the Company") is pleased to provide the following update and commentary on activities undertaken during the three-month period ended 30 September 2023 (the "quarter").

HIGHLIGHTS

- Patent application associated with carbon sequestration in soils using Zeotech products lodged following ongoing work under the soil carbon stream of the Company's agri-soil product development program with Griffith University ("Griffith").
- Scaled up production at in-house lab facility targeting 35 kilograms per week resulting in inventories of more than 500 kilograms that will support manufactured zeolite demand for the Company's large-scale research associated with agri-soil products and methane emissions control technology.
- Methane emission control program advancing on schedule, focussing on chemical methane oxidation potential and selecting optimal methanotroph sources for biological oxidation.
- Samples of the Company's Toondoon kaolin product provided to two Queensland cement producers to investigate the suitability of a metakaolin (calcined clay) product as a Supplementary Cementitious Material ("SCM").
- Research proposal executed with Central Queensland University ("CQU") to investigate the suitability of Zeotech's Toondoon and Abercorn kaolin, across a variety of grades, that target the optimum method of pozzolanic activation to maximise potential commercial value as an efficient SCM.
- Engagement with Conrad Partners, a Hong Kong based commodity marketing agency, to promote its high-quality DSO kaolin product.

Zeotech, Chief Executive Officer, Scott Burkhart, commented:

"The Company has made excellent progress on several promising initiatives during the quarter, which was most recently highlighted by the lodgment of a new patent application associated with carbon sequestration in soils, which reflects the considerable effort under the agri-soil program, new knowledge being created and commercial prospects for the Company's agri-soil product.

"The in-house lab team have also maintained steady production of the Company's low-cost, manufactured zeolites. Pleasingly, this has resulted in over 500kg of inventory that will support demand from our large-scale research programs at Griffith.

"Lastly, we continue to engage proactively with industry regarding a metakaolin product, which uses the Company's high-quality Queensland kaolin assets. This included the commencement of work alongside CQU to investigate the kaolin's potential commercial value as a SCM for greener cement."

MANUFACTURED ZEOLITE MINERAL PROCESSING TECHNOLOGY

OPERATIONAL UPDATE

Griffith University

Methane Control Program

The methane emissions control program, which aims to develop zeolite-based technology to be deployed within the surface capping soil of landfills to adsorb and eliminate methane emissions, continues to progress on schedule.

Work streams during the quarter focussed on completing the characterisation work under activity A, including evaluating the prospects for chemical methane oxidation of the Company's zeoteCH₄TM products.

Methanotroph technology development (activity B) work has also advanced and will evaluate the pathway for methane elimination through biological oxidation. To this end, activities evaluating the performance of the four (4) methanotrophic sources were a priority, and best performing methanotroph communities will be utilised in future trials.

As previously advised, the methane emissions control program was extended by 4-months. This broadens the work associated with activity B to optimise and extend the potential for methane oxidation. The program is now expected to be completed by June 2024.

Soil Carbon & Nutrient Management

Soil Carbon

Activities during the quarter focused on glasshouse carbon validation trials (activity 1B) and evaluating the impacts of plant growth on carbon retention.

This work builds on the results of activity 1A, which revealed that the application of Zeotech products to common agricultural soils can potentially protect approximately 30% of organic added carbon, determined over a five-month timeframe¹.

As a result of the research and datasets generated under the soil carbon program, a '*Method and Use of Zeolites*' patent application was lodged on 21 August, which is associated with carbon sequestration in soils utilising the Company's zeolite-based products.

This patent application reflects the promising outcomes achieved under the soil carbon stream and the development of novel soil carbon mechanisms associated with the Company's agri-soil products which could enhance the commercial value of the Company's technology.

Nutrient Management

The nutrient management stream focussed on developing and optimising zeolite-based nutrient delivery compounds under activity 2B, together with evaluating the performance of the compounds in glasshouse agronomic trials under activity 2C.

¹ ASX Announcement 08/05/2023 "Soil carbon and nutrient management trials deliver promising results."



Figure 1 - Image of a plant growth facility at Griffith University for activity 2C - glasshouse agronomic trials.

The agronomic trials will test product formulations on plant performance, alongside the potential environmental benefits from reduced nutrient leaching (runoff), highlighting the prospects mitigating a key environmental concern associated with the application of fertilisers to agricultural soils.

The program is nearing completion, and the Company anticipates the final progress report to be issued during Q1 2024. The advanced nature of the program and quality of the datasets has also supported the Company's industry partner attraction initiatives.

Operations

Zeotech In-House Laboratory

Activities in the in-house lab have focussed on upscaled production targeting 35 kilograms per week of manufactured zeolite product using the Company's trade-secret and patent-pending processes.

10 kilograms of Zeotech product synthesised from coal fly ash by-product using its patent-pending process was provided to Griffith, and introduced into the Company's methane emission control program. As previously advised, this follows the lodgement of two patent applications in July 2023 for the synthesis of low-cost zeolites from coal fly ash and lithium process by-product.

Continued effort in the lab has resulted in inventories of in excess of 500 kilograms of manufactured zeolite product, produced from a range of feedstocks using the Company's scaled-up pilot plant.

These inventories will support manufactured zeolite demand for the Company's large-scale research associated with agri-soil product development and methane emissions control technology.

During the quarter, there was also continued focus on planning and design work for a demonstration plant using Zeotech’s in-house process technology for the production of low-cost manufactured zeolites.

The University of Queensland (“UQ”)

Resources Technology and Critical Minerals Processing Trailblazer Program (“Trailblazer”)

Following receipt of the initial draft agreement from UQ in June, Zeotech has been in discussions with UQ regarding project options that can be advanced under the Trailblazer².

The Company is currently considering potential projects that are aligned with its present strategic objectives, together with industry partner, Covalent Lithium. These discussions are ongoing, and no formal decision has been made that this stage.

Carbon Capture & Utilisation

Zeolite-Based Nanocomposite Membrane

The Advance Queensland Industry Research Fellowship associated with zeolite-based nanocomposite membranes for selective greenhouse gas capture (“GHG”) commenced during the quarter. Members of Zeotech met with Dr Gloria Milena Monsalve Bravo at UQ and provided three (3) initial samples of the Company’s manufactured zeolite product together with characterisation data.

Intellectual Property (“IP”) Management

Patent Portfolio

The Company is continuing to advance its commercial strategy by developing a portfolio of Intellectual Property, and pursuing protection of its IP through a combination of patent and trade-secret processes.

The Company lodged a ‘Method and Use of Zeolites’ patent application on 21 August, which is associated with carbon sequestration in soils using the Company’s targeted products.

Patent Name	Status	Jurisdiction(s)
Synthesis of Adsorption Materials (associated with zeolite synthesis)	National Phase	Australia, Canada, China, India, Japan, Republic of Korea, United States of America
Treating a Material (associated with lithium process by-product)	National Phase	Australia, Canada, Europe, India, China, Republic of Korea, United States of America
Methods of Preparing a Zeolite (associated with coal fly ash)	Lodged	Australia (initial application)
Methods of Preparing a Zeolite (associated with lithium process by-product)	Lodged	Australia (initial application)
Method and Use of Zeolites New (associated with carbon sequestration in soils)	Lodged	Australia (initial application)

² ASX Announcement 22/04/2022 “University Trailblazer Partnership for ZEO Lithium Cleantech”

The application aims to safeguard possible commercial opportunities resulting from the addition of its manufactured zeolite to soil through potentially novel and inventive steps, together with supporting research publication(s) that could attract investment and industry partner collaboration.

The Company will continue to manage and, where possible, add further value to its IP portfolio, while also pursuing the appropriate protection that best leverages the commercial prospects of the technology it is advancing.

Marketing & Development

Government Engagement

In September, members of the executive team had a meeting with the Department of State Development, Infrastructure, Local Government and Planning, together with key representatives based in the Wide Bay Burnett region in Queensland.

The purpose of the meeting was to introduce Zeotech, its value proposition, and the several promising initiatives it was advancing in-house and with local research institutions. The introduction highlighted the strong potential of its innovative climate technology and potential future economic benefits for the state of Queensland and Australia more broadly.

Agri-Sector

In September, members of the executive team attended The Crawford Fund's Annual Conference "Global Food Security for a Riskier World - Diversification for Resilient Food and Nutrition Systems", held in Canberra.

The conference provided an opportunity to meet with industry leaders and consider some of the challenges facing the agriculture sector, alongside the opportunities to foster a more resilient food system and reduce on-farm GHG emissions.

Toondoon Kaolin

Metakaolin for Greener Cement

During the quarter, the Company provided samples of its Toondoon kaolin clay to two (2) Queensland cement producers to investigate the suitability of a metakaolin (calcined clay) product as a SCM.

The use of calcined clays as SCMs provide the opportunity to significantly reduce the cement industry's carbon footprint.

To support further engagement with industry, the Company executed a proposal with Central Queensland University to investigate the suitability of its Toondoon and Abercorn kaolin clays, across a variety of grades, that will target the optimum method of pozzolanic activation to maximise their potential commercial value as an efficient SCM.

The proposal with CQU was executed in September 2023 and a range of samples were delivered subsequent to the end of the quarter. The program is expected to run for approximately 5-months.

The Company continues to increase engagement and expand its network in this sector through its associate membership with the Australasian Pozzolan Association ("APozA"), along with attending the recent SmartCrete CRC Connect, held in Brisbane. Both organisations have a shared interest in reducing carbon emissions associated with the cement industry, and the Company will use these platforms to promote its metakaolin research and product potential as a SCM for greener cement.

Direct Shipping Ore ("DSO")

During the quarter, the Company engaged Conrad Partners, a Hong Kong based commodity marketing agency, to promote its high-quality DSO kaolin product, with a focus on large Asian markets.

Zeotech has provided approximately 40 kilograms of kaolin product samples to Conrad's in Beijing, China to support early marketing and engagement with prospective offtake partners.

Manufactured Zeolite

The Company continues to receive regular inbound enquiry for manufactured zeolite products and discussions have continued with a North American counterparty, which utilises Type A zeolite as the main ingredient for producing animal feed supplements.

MINING TENEMENTS

Toondoon Kaolin Project ("Toondoon Project")

Planning & Approvals

The waste rock assessment report associated with the Estimated Rehabilitation Cost ("ERC") calculations has been completed during the quarter.

The report, prepared by tenement managers Ardent Group, concluded that the quality characteristics of the topsoil were assessed as suitable for use in rehabilitation, with no amendments necessary to reach the proposed post mining land use outcome of native ecosystems. Consequently, management measures proposed for topsoil, overburden and ore stockpiles are in accordance with standard practices on mine sites.

Work has continued with the traffic impact assessment for notifiable road use, and we anticipate this report will be finalised in the next quarter.

No groundwork was undertaken during the quarter.

Abercorn Kaolin Project ("Abercorn Project")

The Abercorn Project is a large-scale kaolin prospect, located in central Queensland which contains a resource of significant scale and consistent grade of kaolinite mineralisation.

Samples of Abercorn kaolin clay were provided to CQU as part of a research proposal to investigate its suitability as an SCM for the cement industry.

No groundwork was undertaken during the quarter.

CORPORATE

Settlement of legal proceedings

On 26 May, the Company provided update on the legal proceedings in relation to Second Milestone Performance Rights in the Company issued to Goody Investments Pty Ltd³ and Gold Coast Tweed Pet Motels⁴ (the "Plaintiffs") as part consideration under the Abercorn Project Term Sheet executed on 9 August 2019 (the "Agreement") under which the Company acquired the Abercorn Project.

The court ordered mediation initiated in March 2023 has concluded and all parties have executed a final binding Deed of Settlement and Release (the "Settlement Agreement").

Pursuant to the Settlement Agreement, Zeotech and the Plaintiffs have reached a mutually agreeable release of all legal claims and the terms upon which both legal proceedings will be discontinued⁵.

Amongst the key terms of the Settlement Agreement, settlement was conditional upon the Company obtaining shareholder approval to issue the following settlement performance rights ("Settlement Performance Rights") to the Plaintiffs:

- (i) Goody Investments Pty Ltd - 23,782,500 Settlement Performance Rights; and
- (ii) Gold Coast Tweed Pet Motels Pty Ltd - 15,847,500 Settlement Performance Rights.

A General Meeting was held on 7 August 2023, where shareholders passed a resolution related to the issuance for the Settlement Performance Rights as per the requirements of the Settlement Agreement. 39,630,000 Performance Rights were issued to the Plaintiffs on 23 August 2023.

³ ASX announcement 31/08/2022 "Commencement of Legal Proceedings against Zeotech"

⁴ ASX announcement 10/11/2022 "Commencement of Legal Proceedings against Zeotech"

⁵ ASX announcement 26/05/2023 "Settlement of Legal Proceedings"

APPENDIX 5B - QUARTERLY CASH FLOW REPORT

The cash position of the Company on 30 September 2023 was \$3.186m.

Details of mining exploration activities

Details of exploration activities during the quarter are set out above.

Exploration and evaluation expenditure for the quarter comprised Toondoon and Abercorn resource evaluation work \$10,000 and rents, rates, tenement management and miscellaneous expenses \$26,000.

Details of mining production and development activities

No production and development activities were undertaken during the quarter.

Research and Development Costs

R&D project Costs were \$243,000.

Details of related party payments

The aggregate amount of payments to related parties and their associates included in the current quarter Cash flows from operating activities were \$149,000 comprising director salaries (inclusive of superannuation), directors fees and consulting fees.

This Announcement has been approved by the Board.

- End -

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About Zeotech

Zeotech Limited (ASX: ZEO) is a team of dedicated people, working together to build a future focused company, leveraging proprietary technology for the low-cost production of advanced materials 'manufactured zeolites' to deliver solutions aimed at addressing sustainability challenges.

Zeotech Limited - Social Media Policy

Zeotech Limited is committed to communicating with the investment community through all available channels.

Whilst ASX remains the prime channel for market-sensitive news, investors and other interested parties are encouraged to follow Zeotech on Twitter ([@zeotech10](https://twitter.com/zeotech10)) and [LinkedIn](https://www.linkedin.com/company/zeotech).

Subscribe to ZEOTECH NEWS ALERTS - visit <https://zeotech.com.au/contact/>

No New Information

Except where explicitly stated, this announcement contains references to prior exploration results and Mineral Resource estimates, all of which have been cross-referenced to previous market announcements made by the Company. The Company confirms that it is not aware of any new information or data that materially affects the information included in the relevant market announcements and, in the case of estimates of Mineral Resources that all material assumptions and technical parameters underpinning the results and/or estimates in the relevant market announcement continue to apply and have not materially changed.

Forward-looking Statements

This announcement may contain certain "forward-looking statements" which may not have been based solely on historical facts but are based on the Company's current expectations about future events and results.

Where the Company expresses or implies an expectation or belief as to future events or results, such expectation or belief is expressed in good faith and believed to have a reasonable basis. However, forward-looking statements are subject to risks, uncertainties, assumptions, and other factors, which could cause actual results to differ materially to futures results expressed, projected, or implied by such forward looking statements.

The Company does not undertake any obligation to release publicly any revisions to any "forward-looking statements" to reflect events or circumstances after the date of this announcement, or to reflect the occurrence of unanticipated events, except as may be required under the applicable securities laws.

Tenement Information as required by Listing Rule 5.3.3

The following is a table setting out the information as required by ASX Listing Rule 5.3.3, namely:

1. Mining tenements held at the end of the Quarter and their location;
2. Mining tenements disposed during the Quarter and location;
3. Beneficial percentage interests held in farm-in or farm-out agreements at end of Quarter; and
4. Beneficial percentage interests held in farm-in, or farm-out agreements acquired or disposed of during the Quarter.

Location	Tenement	Interest at beginning of quarter (%)	Interests relinquished, reduced or lapsed (%)	Interests acquired or increased (%)	Interest at end of quarter (%)
Australia	EPM 19081	100%	Nil	Nil	100%
Australia	EPM 26837	100%	Nil	Nil	100%
Australia	EPM 26903	100%	Nil	Nil	100%
Australia	EPM 27427	100%	Nil	Nil	100%
Australia	ML 80126	100%	Nil	Nil	100%
Australia	EPM 27395	100%	Nil	Nil	100%
Australia	EPM 27866	100%	Nil	Nil	100%

Appendix 5B

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

Name of entity

ZEOTECH LIMITED

ABN

29 137 984 297

Quarter ended ("current quarter")

30 SEPTEMBER 2023

Consolidated statement of cash flows	Current quarter \$A'000	Year to date (3 months) \$A'000
1. Cash flows from operating activities		
1.1 Receipts from customers	-	-
1.2 Payments for		
(a) exploration & evaluation	(36)	(36)
(b) development	-	-
(c) production	-	-
(d) staff costs	(394)	(394)
(e) administration and corporate costs	(297)	(297)
1.3 Dividends received (see note 3)	-	-
1.4 Interest received	6	6
1.5 Interest and other costs of finance paid	-	-
1.6 Income taxes paid	-	-
1.7 Government grants and tax incentives	-	-
1.8 Other (Technology expenses)	(243)	(243)
1.9 Net cash from / (used in) operating activities	(964)	(964)
2. Cash flows from investing activities		
2.1 Payments to acquire or for:		
(a) entities	-	-
(b) tenements	-	-
(c) property, plant and equipment	(9)	(9)
(d) exploration & evaluation	-	-
(e) investments	-	-
(f) other non-current assets	(32)	(32)

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

Consolidated statement of cash flows		Current quarter \$A'000	Year to date (3 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	(41)	(41)

3.	Cash flows from financing activities		
3.1	Proceeds from issues of equity securities (excluding convertible debt securities)	-	-
3.2	Proceeds from issue of convertible debt securities	-	-
3.3	Proceeds from exercise of options	-	-
3.4	Transaction costs related to issues of equity securities or convertible debt securities	(21)	(21)
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 (provide details if material)	-	-
3.10	Net cash from / (used in) financing activities	(21)	(21)

4.	Net increase / (decrease) in cash and cash equivalents for the period		
4.1	Cash and cash equivalents at beginning of period	4,212	4,212
4.2	Net cash from / (used in) operating activities (item 1.9 above)	(964)	(964)
4.3	Net cash from / (used in) investing activities (item 2.6 above)	(41)	(41)
4.4	Net cash from / (used in) financing activities (item 3.10 above)	(21)	(21)

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

Consolidated statement of cash flows		Current quarter \$A'000	Year to date (3 months) \$A'000
4.5	Effect of movement in exchange rates on cash held	-	-
4.6	Cash and cash equivalents at end of period	3,186	3,186

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	1,110	4,136
5.2	Call deposits	2,076	76
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)	3,186	4,212

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	149
6.2	Aggregate amount of payments to related parties and their associates included in item 2	-

Note: if any amounts are shown in items 6.1 or 6.2, your quarterly activity report must include a description of, and an explanation for, such payments.

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

7. Financing facilities	Total facility amount at quarter end \$A'000	Amount drawn at quarter end \$A'000
<i>Note: the term "facility" includes all forms of financing arrangements available to the entity.</i>		
<i>Add notes as necessary for an understanding of the sources of finance available to the entity.</i>		
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 quarter 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.		
N/A		

8. Estimated cash available for future operating activities	\$A'000
8.1 Net cash from / (used in) operating activities (item 1.9)	(964)
8.2 (Payments for exploration & evaluation classified as investing activities) (item 2.1(d))	-
8.3 Total relevant outgoings (item 8.1 + item 8.2)	(964)
8.4 Cash and cash equivalents at quarter end (item 4.6)	3,186
8.5 Unused finance facilities available at quarter end (item 7.5)	-
8.6 Total available funding (item 8.4 + item 8.5)	3,186
8.7 Estimated quarters of funding available (item 8.6 divided by item 8.3)	3.30
<i>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.</i>	
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?	
Answer: N/A	
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: N/A	

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

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?

Answer: N/A

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: 30 October 2023

Authorised by: By the Board
(Name of body or officer authorising release – see note 4)

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.