6 September 2021

# GRIFFITH UNIVERSITY AGRONOMIC STUDIES DELIVER PROMISING RESULTS

Emerging mineral processing technology company, Zeotech Limited (ASX: "ZEO", "Zeotech" or "the Company") is pleased to advise that it has received promising results from agronomic studies undertaken by Griffith University ("GU"). The results follow a nine-month GU research program ("Pilot") that commenced in November 2020, titled Exploring Agricultural Applications for Synthetic Zeolites[1].

GU's nine-month Pilot trial has revealed that there is considerable potential to develop Zeotech products that offer solutions for large-scale agricultural challenges. The results provide confidence in the use of synthetic zeolites to develop an economically compelling fertiliser delivery platform, which offers multiple adjunct benefits including the potential for $CO_2$ sequestration, as well as the application of synthetic zeolites as an agricultural pollutant treatment.

## HIGHLIGHTS

- GU's Pilot results highlight significant potential for development of Zeotech products;
- The agronomic studies showed that synthetic zeolites were capable of:
  - High nutrient retention and exceptionally high phosphorus retention;
  - Pesticide removal and compound breakdown;
  - Enhanced moisture retention; and
  - Decreased soil acidification;
- Zeotech to progress a follow up, comprehensive GU research program; and
- Initial results and follow up study to underpin product development initiatives allowing Zeotech to target major commercial opportunities

In November 2020, Zeotech engaged Griffith University to undertake a preliminary scoping project to explore potential agricultural applications for a range of synthetic zeolite products, which are under development using proprietary mineral processing technology from The University of Queensland ("UQ").

The objective of the GU Pilot trial was to evaluate the effectiveness of Zeotech's synthetic zeolites for a range of agricultural applications including:

a) Intercepting and retaining nutrients (particularly nitrate, ammonium, and phosphate) associated with agricultural runoff;
b) Incorporation into soils as an amendment to improve crop/pasture growth in the critical establishment phase of agronomic production systems; and

[1] Refer to ASX announcement 28/09/2020 "Exploring Agricultural Applications for Synthetic Zeolites"

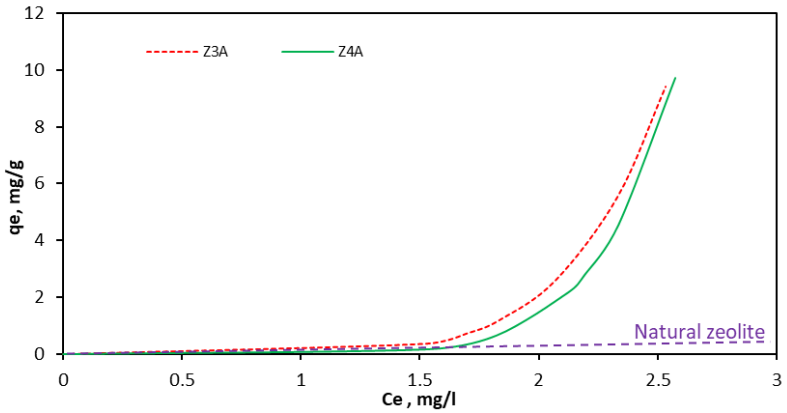
c) Acting as a substrate to facilitate removal of agricultural pesticides from runoff and soils.

The Pilot formed part of GU's wider research program to investigate opportunities harnessing natural zeolites to help agronomic systems cope with emerging challenges, including fertiliser resource scarcity and increasingly difficult growing conditions wrought by changing climates.

The outcomes of the Pilot trial are very promising and support a more comprehensive agronomic research program that will underpin the development of Zeotech products for fertiliser delivery, incorporating carbon sequestration; and agricultural pollutant treatment.

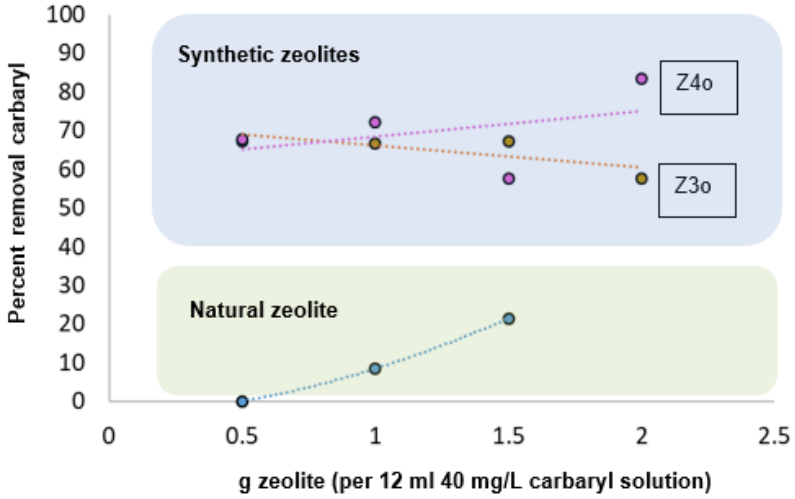
**Nutrient Retention:**

Studies revealed exceptionally high phosphate retention by Zeotech products. This finding allows for a potentially twinned benefit of nutrient interception from waste streams coupled with re-application to agricultural soils as a fertiliser.




**Pesticide removal and compound breakdown:**

Testing demonstrated Zeotech products were able to remove pesticide from solution and actively degrade it. This holds promise for applications relating to agricultural runoff treatment.

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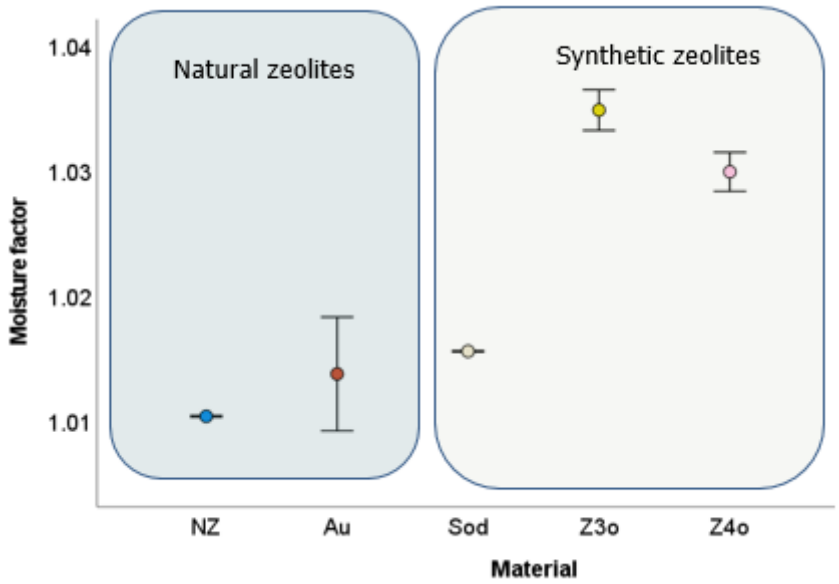
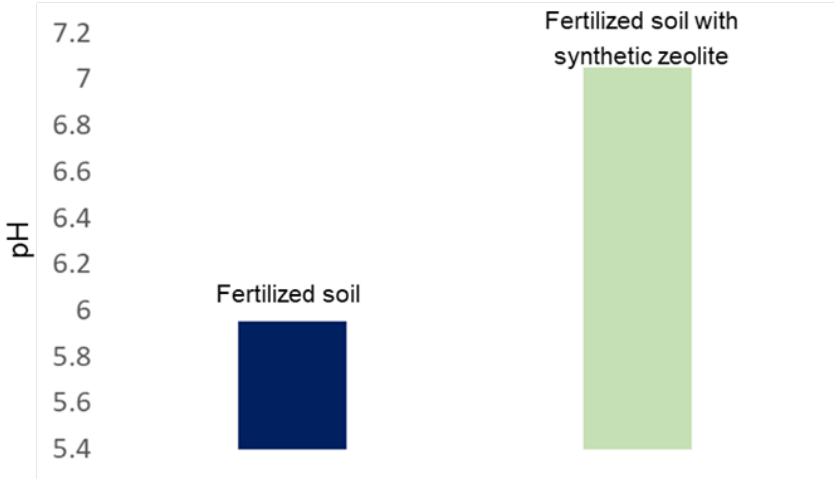
**Enhanced moisture retention:**

GU's study highlighted greater moisture retention capacities for Zeotech's products when compared to natural zeolites. This offers potential benefits to the agricultural sector including increased soil resilience to drought and improved soil microbial health.




**Decreased soil acidification:**

The pilot trial work revealed that the alkaline pH of Zeotech's products could mitigate soil acidification. This is a common problem across the agriculture sector resulting from sustained application of chemical fertilisers.




The promising outcomes will allow GU and Zeotech to progress a comprehensive agronomic research program that will underpin the development of new Zeotech products for fertiliser delivery. The Company will explore opportunities to incorporate carbon sequestration; and agricultural pollutant treatment. Zeotech expects to commence the follow up study in the December quarter 2021.

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**Griffith University, School of Environment & Science | Australian Rivers Institute, Dr. Chris Pratt commented:**

*"I'm excited to be working with Zeotech to develop agronomic products based on the extremely promising results gathered from our initial 9-mth pilot program.*

*Our studies showed exceptional phosphate adsorption and very encouraging pesticide removal not only pesticide removal observed but actual breakdown of the compound.*

*The opportunity to undertake expanded research, utilising synthetic zeolites to develop Zeotech products for advanced fertiliser delivery, carbon markets and the management of agricultural pollutants is compelling and will offer a range of commercial opportunities."*

**Zeotech, Managing Director Peter Zardo added:**

*"Zeotech values the opportunity to work with Griffith University and is very pleased that the initial agronomic study has delivered such exciting results.*

*Early highlights provide a number of potential opportunities, that clearly warrant an expanded research program. Further studies will allow the Company to develop a suite of products targeted at sustainable food production and the management of agricultural pollutants.*

*The commercial potential is wide-reaching both on-farm to target improved economics, managing run-off to assist with pollution control and the potential to incorporate carbon sequestration, unlocking the large and addressable carbon markets into the agronomic product benefits.*

*ZEO looks forward to tabling the expanded GU research program which is currently under development to our shareholders in the near future."*

This Announcement has been approved by the Board.

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**About Zeotech**

Zeotech Limited (ASX: ZEO) holds proprietary mineral processing technology developed by The University of Queensland, for the low-cost production of advanced materials 'synthetic zeolites' and aims to utilise their unique properties for a sustainable future.

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The strategy focuses on the low-cost manufacture of molecular sieve synthetic zeolites for global markets. The Company is developing innovative environmental management solutions, which include cleantech for lithium refineries to commercially manage by-product residue and developing economically viable carbon capture and conversion solutions, underpinned by low-cost 'adsorbents and catalysts' manufactured using Zeotech's patent-pending technology.

## About Zeolites

Synthetic zeolites are manufactured aluminosilicate minerals with a sponge-like structure, made up of tiny pores (frameworks) that make them useful as catalysts or ultrafine filters. They are commonly known as molecular sieves and can be designed to selectively adsorb molecules or ions dependant on their unique construction.

Zeolites play an important role in a cleaner and safer environment.

- zeolites are an effective substitute for harmful phosphates in powder detergent, now banned in many parts of the world because of blue green algae toxicity in waterways;
- as catalysts, zeolites increase process efficiencies = decrease in energy consumption;
- zeolites can act as solid acids and reduce the need for more corrosive liquid acids;
- zeolites adsorbent capabilities see them widely used in water treatment i.e., heavy metal removal including those produced by nuclear fission; and
- as redox catalyst sorbents, zeolites can help remove exhaust gases and CFC's.

## Forward-looking Statements

This release may contain certain forward-looking statements with respect to matters including but not limited to the financial condition, results of operations and business of Zeotech and certain of the plans and objectives of Zeotech with respect to these items.

These forward-looking statements are not historical facts but rather are based on Zeotech current expectations, estimates and projections about the industry in which Zeotech operates, and its beliefs and assumptions.

Words such as "anticipates," "considers," "expects," "intends," "plans," "believes," "seeks," "estimates", "guidance" and similar expressions are intended to identify forward looking statements and should be considered an at-risk statement. Such statements are subject to certain risks and uncertainties, particularly those risks or uncertainties inherent in the process of developing technology and in the endeavour of building a business around such products and services.

These statements are not guarantees of future performance and are subject to known and unknown risks, uncertainties, and other factors, some of which are beyond the control of Zeotech, are difficult to predict and could cause actual results to differ materially from those expressed or forecasted in the forward-looking statements.

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Zeotech cautions shareholders and prospective shareholders not to place undue reliance on these forward-looking statements, which reflect the view of Zeotech only as of the date of this release.

The forward-looking statements made in this announcement relate only to events as of the date on which the statements are made.

Zeotech will not undertake any obligation to release publicly any revisions or updates to these forward-looking statements to reflect events, circumstances or unanticipated events occurring after the date of this announcement except as required by law or by any appropriate regulatory authority.