PITT STREET RESEARCH

Zeotech

Better Low-Carbon Concrete

Share Price: A$0.079

ASX: ZEO

Sector: Industrials

2 September 2025

Zeotech (ASX: ZEO) is the company behind AusPozz™, a manufactured pozzolan (high-reactivity metakaolin) that can replace up to 40% of Ordinary Portland Cement (OPC) binder to produce low-carbon concrete. AusPozz™ increases the strength and durability of concrete while reducing shrinkage, concrete cancer, and embodied carbon. Zeotech will supply high-grade kaolin from its Toondoon Kaolin project in Queensland with a >10Mt JORC Resource, which will be manufactured at a dedicated calcination facility at Bundaberg Port.

First sales of DSO kaolin secured for 2026

Zeotech has made significant progress since beginning its journey in 2020, underscored by recently securing a $180m initial 5-year (rolling) Direct Shipping Ore (DSO) kaolin offtake agreement with Jiangsu Mineral Sources International (MSI) for its raw ore kaolin, with an estimated net margin in excess of 40%. It anticipates securing all approvals for the development of its mine site by Q1 of CY26, and the DSO kaolin mining operation is planned to begin soon after.

A recent PFS showed a $406m NPV and 42% IRR

The Company plans to commence production of AusPozz™ in Q4 of CY28. A Preliminary Feasibility Study (PFS) for the Project has found a $406m NPV over a 20-year Life of Mine and a 42% IRR. It has low capital requirements of $114.8m (Kaolin DSO and AusPozz™ production), even accounting for an 11% contingency, which could be reduced to $95m from early cash flows from the kaolin DSO sales.

With a global push to reduce emissions from concrete and building materials, Zeotech believes AusPozz™ can play a significant role in the decarbonisation of the built environment, with a product life cycle analysis (LCA) confirming an embodied carbon value circa 79% less than cement. The company has seen significant interest from the construction sector, supported by executing a Memorandum of Understanding (MOU) with Holcim Australia, part of the world's largest sustainable building materials company, operating in over 70 countries.

Valuation range of $0.30-0.42 per share

We value Zeotech at $0.30 per share in a base case and $0.42 per share in an optimistic (or bull) case based on our own modelling of the AusPozz™ Project, deriving an NPV of $559.4/786.6m respectively. Please see p.19 for further details on our valuation and p.21 for the key risks.

Market cap. (A$ m)	148.5
# shares outstanding (m)	1,879.4
# shares fully diluted (m)	1,919.1
Market cap ful. dil. (A$ m)	151.6
Free float	100%
52-week high/low (A$)	0.098 / 0.029
Avg. 12M daily volume ('1000)	1,416.2
Website	www.zeotech.com.au

Source: Company, Pitt Street Research

Share price (A$) and avg. daily volume (k, r.h.s.)

Source: Refinitiv Eikon, Pitt Street Research

Valuation metrics	
DCF fair valuation range (A$m)	559.4-789.6
DCF fair valuation range (A$ per share)	0.30-0.42

Source: Pitt Street Research

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Table of Contents

Overview of Zeotech 3

The Key reasons to look at Zeotech 3

Overview of AusPozz™ 5

Zeotech's commercial plan 7

The AusPozz™ Manufacturing Facility 9

Potential customers 11

Results of the 2025 PFS 13

What's next? 15

Zeotech's management 16

Our valuation of Zeotech's opportunity with AusPozz™ 18

Risks 20

Appendix I – Glossary 21

Appendix II – Capital Structure 22

Appendix III – Analysts' Qualifications 23

General advice warning, Disclaimer & Disclosures 24

Overview of Zeotech

Zeotech has evolved into the company it is today since the 2020 licensing of a zeolite-synthesis mineral processing technology

Zeotech listed on the ASX in the late 2000s and spent several years as a battling explorer. Things changed in 2020 when it licensed a zeolite-synthesis mineral processing technology from UniQuest, developed by A/Prof. James Vaughan and Dr. Hong Peng. The Company intended to synthesise zeolites from feedstocks including lithium by-product and kaolin.

Initial work focused on the technology's circularity potential for lithium process by-product, given the bull run at the time; however, the focus shifted to kaolin, particularly after Zeotech picked up the Toondoon Kaolin Project, one of Australia's highest-grade raw-ore kaolin deposits. The company undertook a research program in mid-2024, testing its kaolin for the production of high reactivity metakaolin as a Supplementary Cementitious Material (SCM) to advance low-carbon cement and concrete.

The last 12 months have seen a PFS completed on the AusPozz™ Project, comprising front-end DSO kaolin sales in 2026 and AusPozz™ metakaolin production in late-2028, an updated mineral resource estimate, and its first offtake agreement. Investors have gradually embraced the company, given the opportunity to leverage its ultra-high purity kaolin into near-term cash flow and as a potential major player in the low-carbon concrete market.

The Key reasons to look at Zeotech

1) **Zeotech represents a compelling opportunity.** Zeotech has a simple product in AusPozz™ that can deliver unparalleled economic and environmental outcomes by reducing carbon emissions while providing significantly increased strength and durability to concrete. It involves the calcination of feedstock from Australia's highest-grade kaolin deposit and manufacturing AusPozz™ immediately adjacent to the planned shipping port at Bundaberg, offering logistics benefits to the east coast of Australia.
2) **Zeotech's AusPozz™ has a considerable market opportunity.** Zeotech believes the use of its AusPozz™ as a Supplementary Cementitious Material (SCM) under the current concrete standard has an immediately addressable domestic market of 3-4 million tonnes per annum at 30-40% cement binder replacement, which is 10x the PFS nameplate production target of 300,000tpa. This is just a fraction of the global opportunity since concrete is the second most widely used material after water. The global SCM market is forecast to reach c. US$40 billion by 2030[1]. SCMs are the most viable alternative to mitigate CO_2 emissions from the cement industry[2].
3) **Emission reduction targets**. Zeotech's commercialisation comes at an opportune time, with the built environment experiencing a strong industry pull to reduce carbon emissions, driven further by mandated government targets like the Safeguard Mechanism. AusPozz™ concrete trials have created a domestic pipeline of 49 active prospects, comprising 9 Tier 1 cement companies, 32 Tier 2 prospects, and engineering design specifiers, validating the strong industry interest in the product.
4) **World-class kaolin resource.** Zeotech will derive its feedstock from Australia's highest-grade known raw ore kaolin resource within an approved QLD Mining Lease.

[1] Allied Market Research: Supplementary Cementitious Materials market, competitive landscape & trend analysis report: Global opportunity analysis and industry forecast (2021-2030)
[2] https://www.mckinsey.com/industries/engineering-construction-and-building-materials/our-insights/the-future-cement-industry-a-cementitious-golden-age

It has a 10.9Mt JORC Resource, which is more than sufficient to meet the 20-year AusPozz™ project life, and this resource is derived within only 5% of the 28,000-hectare tenement footprint.

5) **Low capital costs.** Zeotech's total capex to commence stage 1 DSO kaolin mining operations is estimated to be $9.3m (inclusive of contingency), and Stage 2 AusPozz™ production at $105.5m, even accounting for an 11% contingency. Moreover, there is potential for this to be reduced to $95m with early-stage cash flows from DSO Kaolin operations.
6) **A clear pathway to commercialisation with near-term cashflow secured**. Production of AusPozz™ is anticipated in Q4 of 2028, and substantial near-term cash flows from direct shipping of raw kaolin ore are slated to commence mid-2026. The company's immediate priorities are to commence mining operations and complete a DFS for the development of the AusPozz™ manufacturing facility at the Port of Bundaberg.
7) **Australia's largest DSO kaolin offtake agreement with more conversion to come**. Zeotech signed its first binding offtake term sheet in August 2025 for a minimum of 800,000 tonnes of kaolin and 150,000 tonnes of cosmetic kaolin products over the first 5 years, at an agreed average price that is within 5% of the PFS pricing. This equates to circa $180 million of sales over the initial 5-year period. At the $105/tonne All-In Sustaining Cost (AISC) tabled in the PFS, this presents a healthy net margin in excess of 40%. Additionally, the company is fielding interest from other prospective customers.
8) **Zeotech has a quality industry-relevant leadership team.** It has a highly experienced team, particularly in the building materials sector, with Executive Director Shane Graham, whose career includes executive management roles with two of Australia's leading building materials companies, including 5 years at Holcim Australia and over 20 years at Boral, and CEO James Marsh whose career included 15 years with Imerys Minerals Limited, a French multinational specialising in the production and processing of industrial minerals. At Imerys, Mr Marsh was the technical representative on a global kaolin calcination team, overseeing metakaolin production. During this period, the use of metakaolin in building product applications and global intellectual property was developed. Further, he was heavily involved in the technical development and marketing of metakaolin from operations in the UK, France, China and the USA.
9) **We believe Zeotech is undervalued** at its current market value. We value the company at A$0.30 per share in our base case and A$0.42 per share optimistic case using a DCF approach with conservative assumptions on our own modelling of the AusPozz™ Project, deriving an NPV of $559.4/786.6m respectively.

Overview of AusPozz™

AusPozz™ is high-reactivity metakaolin (HRM). Metakaolin is kaolin heated to 600-800°C, and AusPozz™ is 'highly reactive' due to the unique high purity of Zeotech kaolin from its Toondoon Project

What is AusPozz™? AusPozz™ is a high-reactivity metakaolin and manufactured pozzolan, which is classed as a Supplementary Cementitious Material (SCM) under existing concrete standards, that can be used to produce low-carbon concrete (Figure 1). Metakaolin is produced from kaolin that is heated to 600-800°C, which activates the inert kaolin to convert it to a reactive pozzolanic material. When AusPozz™ is mixed with cement and water, it reacts with calcium hydroxide (portlandite) - a by-product of cement hydration - to form calcium silicate hydrate, which is a concrete binder. This allows AusPozz™ to replace a large amount of the cement in concrete, giving it significant embodied carbon reductions.

AusPozz™ is highly reactive due to the unique purity of Zeotech's kaolin feed, which also provides an extensive range of technical performance benefits to concrete. These include much higher strength, lower shrinkage, improved durability, and the ability to replace much higher-cost additives. These technical advantages allow AusPozz™ to reduce the amount of cement binder required per cubic metre of concrete, delivering a material cost and carbon benefit.

Figure 1: AusPozz™

Source: Company

AusPozz™ acts as a concrete 'binder', holding all the components together.

Before we proceed, it is essential to clarify a few key points about concrete that are crucial to understanding in order to appreciate the difference AusPozz™ can make and the opportunities it presents.

1. **Concrete is the final product, while cement is the 'glue' that binds materials together to form concrete**, originating as a fine grey powder made of ground limestone, clay, and other materials. Cement reacts with water to bind the aggregates and form concrete.
2. **The term concrete 'binder' means the material that holds all the components together and gives it strength** and durability. The most common type of binder is Portland cement, but other types include blended cements (usually mixed with fly ash or slag), geopolymers, and lime.
3. **In Australia, the most common 'binders' are either GP (General Purpose) or GL (General-purpose Limestone Cement).** GL contains about 8% limestone and tends to have lower embodied carbon, but does not improve concrete performance like AusPozz™. Both are derivatives of so-called Portland cement, named by its inventor Joseph Aspdin in the early 19th century England, who thought the hardened product resembled high-quality building stone from the island of Portland in Dorset.

Why AusPozz™ and why now?

AusPozz™ has a 79% lower carbon footprint than GP Cement used in most Australian construction.

An independent Life Cycle Analysis (LCA) of the carbon footprint of AusPozz™ (produced at Bundaberg Port) has also shown superior results with an average of 204kg per tonne vs 951kg per tonne of GP Cement – a 79% difference. The secret lies in technical advantages of AusPozz™, such as enhancing strength and durability in concrete, making it a true cement-binder substitute rather than a concrete filler like fly ash. The ability to reduce total binder in concrete mixes and still meet specified MPa (measure of concrete strength) delivers a meaningful cost benefit per cubic metre of concrete. AusPozz™ can materially reduce the embodied carbon footprint of concrete by replacing up to 40% of cement in various concrete mix designs without impacting the structural integrity and workability of the concrete.

AusPozz™ can replace up to 40% of cement while providing significantly higher strength and lower shrinkage.

The reduction in the embodied carbon of concrete is a key driver of the demand for AusPozz™. There is a worldwide push to adopt low-carbon concrete in the construction sector, and the ability to replace a proportion of cement in concrete mix designs is the simplest and most cost-effective decarbonisation solution. It's important to note that cement accounts for 8% of global carbon emissions and will increasingly be used due to urbanisation patterns and infrastructure development needs[3]. Cement production is expected to reach 6 trillion kg by 2050, up from 4.1 trillion kg in 2020 and 0.5-0.7 CO_2 is emitted per kg of cement[4]. While there are various decarbonisation pathways to reduce emissions from cement usage, less carbon-intensive binders are the most feasible alternative given the lower cost of adoption.

AusPozz™ nameplate production of 300,000tpa presents a material positive carbon emissions impact, with the application of this volume in the built environment, enabling the avoidance of 229,900t of CO_2 emissions every year, equivalent to 53,600 petrol-powered cars, annual electricity use in over 30,860 homes, and planting and growing 3.8 million tree seedlings each year for 10 years.

AusPozz™ delivers strength and durability

Concrete structures need to last for vehemently long periods of time, and pozzolans are added when this is a specified performance criteria.

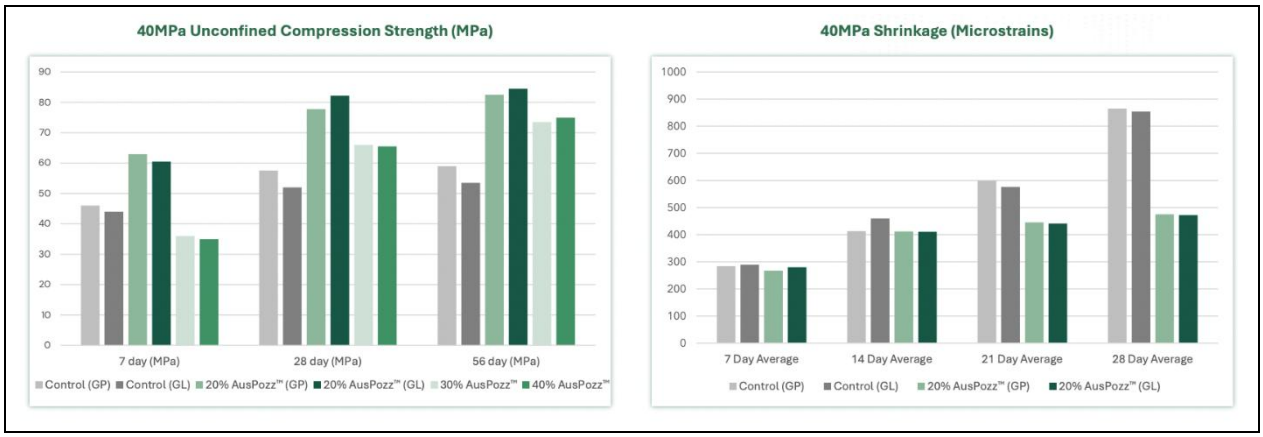
As one would imagine, concrete structures are typically planned to last decades, even centuries – it was construction used in Ancient Rome which pioneered the use of pozzolans, finding that it gave much higher durability concrete[5], and a testament to its strength is the fact that many Roman structures still stand today. There can be disastrous consequences if concrete does not last, and metakaolin has been manufactured and used globally to improve the longevity of critical concrete infrastructure.

Consequently, pozzolans such as metakaolin are added to concrete to enhance performance and improve durability[6]. AusPozz™ can be added to concrete at a much higher level than other metakaolin's due to its high reactivity, technical performance advantages and much lower cost, which also allows major gains in sustainability. Pozzolans have no cementitious value on their own, but react chemically with calcium hydroxide to form a strong binder. The calcium hydroxide is produced when water is added to Portland cement. Compared to alternative SCMs such as fly ash, metakaolin is higher performing but more expensive and not as widely available. AusPozz™ aims to solve this problem with a very simple, cost-effective flowsheet for production, underpinned by high-purity raw kaolin feedstock.

[3] Nie, S. et. al (2022), Analysis of theoretical carbon dioxide emissions from cement production: Methodology and application, Journal of Cleaner Production, Vol 334, https://doi.org/10.1016/j.jclepro.2021.130270
[4] Ibid.
[5] https://ancient-history-blog.mq.edu.au/cityOfRome/BenConcrete.
[6] 'Increasing concrete durability with high-reactivity metakaolin' https://www.sciencedirect.com/science/article/abs/pii/S0958946500000974#

AusPozz™ was validated in early 2025 by an independent concrete expert on a commercial scale. This testing found that AusPozz™ can replace up to 40% of cement while providing significantly higher strength and lower shrinkage. Figure 2 shows that structures with a high proportion of AusPozz™ (up to 40%) have greater strength compared to GP and GL cement types commonly used in Australia. Concrete with 20% of cement replaced showed a 50% increase in strength and 50% reduction in shrinkage[7].

Figure 2: AusPozz™ testing results (L-R: Strength and Shrinkage)



Source: Company

Zeotech's commercial plan involves extracting high-grade kaolin from its Toondoon project for immediate DSO sales and also as a feedstock for the production of AusPozz™ at a manufacturing facility at the Port of Bundaberg.

Zeotech's commercial plan

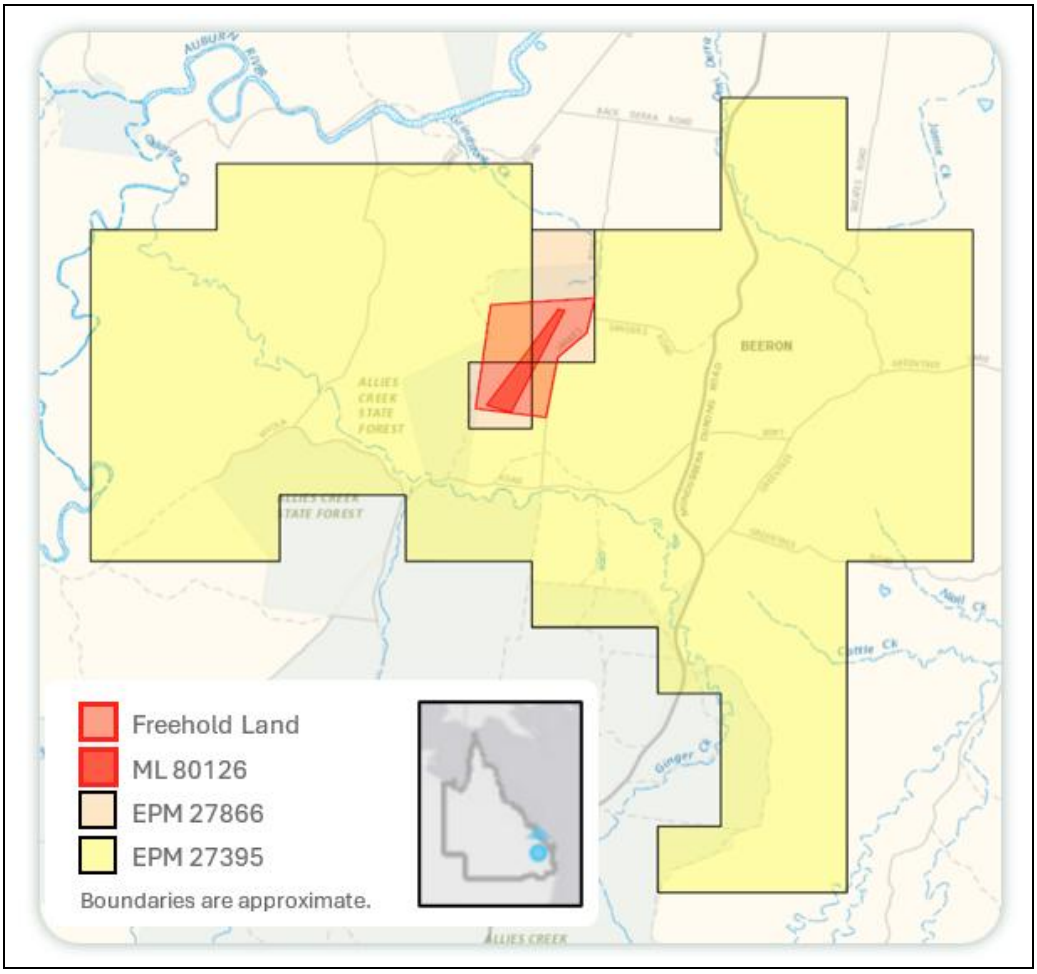
Zeotech's plan for the AusPozz™ Project involves the extraction of high-grade kaolin from its approved mining lease (ML 80126) Toondoon project, transport to a facility at the Port of Bundaberg via an approved B-Double route of 260km, where in the first instance it will be sold as an direct shipping ore (DSO) kaolin product under an initial 5-year $180 million offtake with Jiangsu Mineral Sources International (MSI). Then stage 2 involves the manufacture of AusPozz™ at a calcination facility immediately adjacent to the Port of Bundaberg, where the product can be economically shipped to Australia's largest building markets, Sydney and Melbourne Ports, and other potential customers, carbon and cost effectively.

The Toondoon Kaolin project

Zeotech's kaolin project held under an approved Queensland Mining Lease ML 80126 and surrounding EPM's 27866 and 27395, is the highest known grade kaolin deposit in Australia. It is 20 kilometres south of Mundubbera in Queensland's Burnett Region and spans 28,000 hectares (Figure 3). Zeotech announced the acquisition of the project in 2021, closing the deal mid-2022 and then purchasing 682 hectares of freehold land, which covered the ML and a portion of the EMP's. The JORC Resource indicates in excess of 10 million tonnes of kaolin[8] with high-enough purity so that the ore would not have to undergo processing before calcination, beyond simple milling to produce AusPozz™ high-reactivity metakaolin.

[7] ASX announcement 15 April 2025
[8] ASX announcement 23 August 2021.

Figure 3: The Toondoon Kaolin project tenement and land holdings



Source: Company

Toondoon's kaolin resource is of sufficient quantity and quality for Zeotech's commercial plans.

A resource of superior quality, with room to grow

Since picking up the project, Zeotech has updated Toondoon's Resource to 10.87Mt of high-purity kaolin clays. The Company plans to deliver 9.28 million dry tonnes of kaolin ore to its AusPozz™ manufacturing facility. Toondoon's Resource is more than sufficient for the company's mine life plan as outlined in its 2025 Preliminary Feasibility Study from a quantity perspective. The resource's quality is essential too. The kaolin has a purity of more than 90% kaolinite, which is a product of high alumina levels in the raw ore of between 36-38% and means there is no need for hydrous processing to deliver a high-grade DSO kaolin and AusPozz™ feedstock. Trials conducted in early 2024 by Central Queensland University have found that high-reactivity metakaolin produced from Toondoon raw kaolin exceeded both Australian and ASTM standards for manufactured pozzolans used in concrete. Moreover, the resource supports low-impact, open-cut mining with minimal overburden, resulting in attractive economics and making it ideal for Direct Shipping Ore (DSO).

At peak production, there will only be a need for eight site personnel, excluding haulage and maintenance contractors, assuming a dry hire model for equipment.

No drilling or blasting will be required; the ore will be ripped and loaded using graders and front-end loaders. There will be a mine services compound including a weighbridge, on-site laboratory, workshop, and other necessary utilities.

There is a 260km Queensland Department of Transport and Main Roads (TMR) approved heavy-haulage transport route from the Toondoon Mine Site to the AusPozz™ Manufacturing Facility. Mine access will be via North Burnett Regional Council (NBRC) owned and controlled roads, which are planned to be upgraded before the commencement of production. Again, 9.28 million dry metric tonnes will be transported of which 6.32 million tonnes will be AusPozz™ feed, 2.87 million tonnes is allocated to Kaolin DSO, and the balance will be higher-value Cosmetic Kaolin DSO.

The AusPozz™ Manufacturing Facility

Zeotech plans to build a 300,000dtpa manufacturing facility near the Port of Bundaberg

Zeotech plans to build a 300,000dtpa manufacturing facility at the Port of Bundaberg, having executed a Letter of Intent (LOI) for a 7.8 hectare site with Gladstone Ports Corporation in February 2025 (Figure 4) to secure the site.

The broader facility site will also contain storage facilities (both for stockpile and processed ore ready to be exported) as well as administration and laboratory facilities, not to mention necessary manufacturing equipment. This will include a rotary kiln for drying and calcination, a rotary cooler, a VRM (Vertical Roller Mill[9]) circuit, baghouses for off-gas dust removal and recovery. It will be supported by necessary utility supplies, including water, natural gas, diesel fuel, and compressed air for process needs and instrumentation.

Figure 4: AusPozz™ Manufacturing Facility at the Port of Bundaberg

Source: Company

[9] This is a grinding machine to reduce the size of raw materials into fine powder.

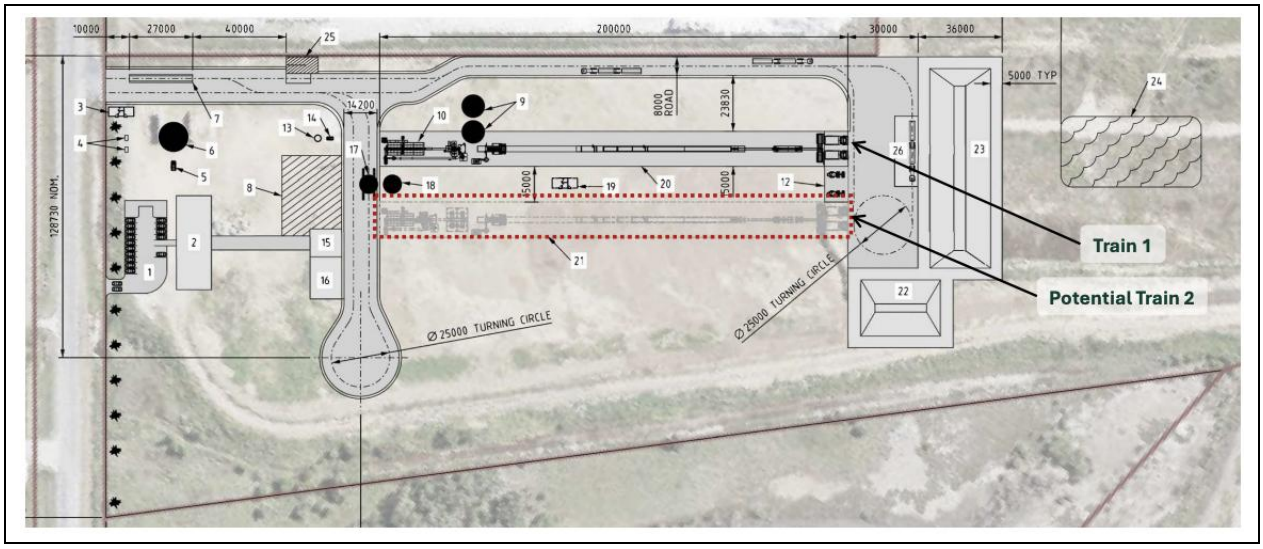
There is a clear manufacturing plan for AusPozz™.

The AusPozz™ manufacturing process will involve the delivery of kaolin ore via B-double trucks. A front-end loader will place the ore into one of two stockpiles, and these will be blended under a controlled feed ratio. The kaolin will be dried and calcined in the rotary kiln to remove the crystallisation water from the kaolinite and convert it to metakaolin. The product will then be cooled in a rotating drum using ambient air and lifting flights to enhance heat transfer.

AusPozz™ will be milled in a VRM to a D_{50} particle size of 20 microns. Three baghouse systems will recover the product and control dust at the kiln feed, cooler, and milling circuit. The final product will be transferred to a silo for bagging or bulk storage. Zeotech plans to manufacture at its facility with one train to begin with, but there will be potential to build a second down the track, which could double capacity to 600,000tpa, pending sufficient kaolin resources are found (Figure 5), which would further improve economies of scale.

The site will employ approximately 52 personnel at the Facility, and a further 56 contracted haulage personnel will be required for logistics. This will be in addition to the 21 personnel at the Mine site and 12 full-time equivalent supporting corporate, lab, and administration personnel, some at Bundaberg and others at Zeotech's existing headquarters and lab facility at Brisbane Technology Park.

Figure 5: AusPozz™ Manufacturing Facility layout



Source: Company

Potential customers

There will be four products.

1. Kaolin DSO (unprocessed raw ore) – High purity, low-iron kaolin for applications such as ceramics and coatings;
2. Cosmetic Kaolin DSO (unprocessed raw ore) – High purity, high-iron kaolin with light-pink colouring for cosmetics;
3. AusPozz™ – High reactivity metakaolin SCM for concrete and building applications;
4. AusPozz™ Max – Finer, high-performance variant for speciality high-value uses.

There is a clear incentive for would-be customers to use AusPozz™.

Zeotech's PFS envisioned 4 potential groups of customers for its AusPozz™ metakaolin. First, major cement producers/suppliers (Tier 1). Second, companies that buy cement from Tier 1 cement producers/suppliers or import directly from offshore cement producers. Third, engineering and design companies that could specify AusPozz™ in their concrete mix designs for projects they are involved in. Fourthly, a myriad of small lots (less than full truckload) high value customers that will be supplied by a network of distributors.

All of these will want AusPozz™ due to a combination of lowering total binder in concrete mixes to reduce costs and requirements for decarbonisation (including government mandates like the Safeguard Mechanism impacting Tier 1 customers), increased construction requirements due to infrastructure growth, driven by State government departments setting guidance on the expectations for managing upfront carbon in public infrastructure projects (also referred to as embodied carbon), ensuring upfront carbon is a key consideration across the project stages. For example, a policy applies to all NSW Government building projects (tenders) valued over $50 million and linear infrastructure projects valued over $100 million[10].

The key issue is a lack of feasible alternative SCMs, as the go-to fly ash is reducing in availability as power stations are switched off due to being too emissions-intensive, and even whilst available, not delivering the comparable level of technical benefits in the concrete mix to deliver lower cost per cubic metre by reducing total binder. Zeotech's AusPozz™ Project will be the first commercial-scale producer of high-performance SCM in the Australian market.

The first confirmed customer delivers $180m+ offtake

Zeotech signed its first binding offtake term sheet with MSI China, valued at $180 million over the initial 5-year term at over a 40% net margin

In August 2025, Zeotech signed a binding offtake term sheet with Jiangsu Mineral Sources International Trading (MSI), an international trading house established in China and one of the world's leading independent bulk raw material trading companies. Over an initial 5-year term, MSI will take 800,000t of Kaolin and 150,000t of Cosmetic Kaolin. It will then have exclusive offtake and marketing rights for Zeotech's specified kaolin products in China (including Taiwan and Hong Kong), South Korea, and Japan. The agreed price and committed minimum volumes are within 5% of the weighted average sale price in PFS, which equates to circa $180 million of sales over the initial term and at the $105/tonne All-In Sustaining Cost (AISC) tabled in the PFS, this presents a healthy net margin in excess of 40%, based on Year 1 pricing, however the offtake is subject to annual negotiation from Year 2. These terms are sufficient to catalyse and sustain operations at Toondoon, providing early cash flows to support the AusPozz™ Project.

[10] https://www.infrastructure.nsw.gov.au/expert-advice/decarbonising-infrastructure/

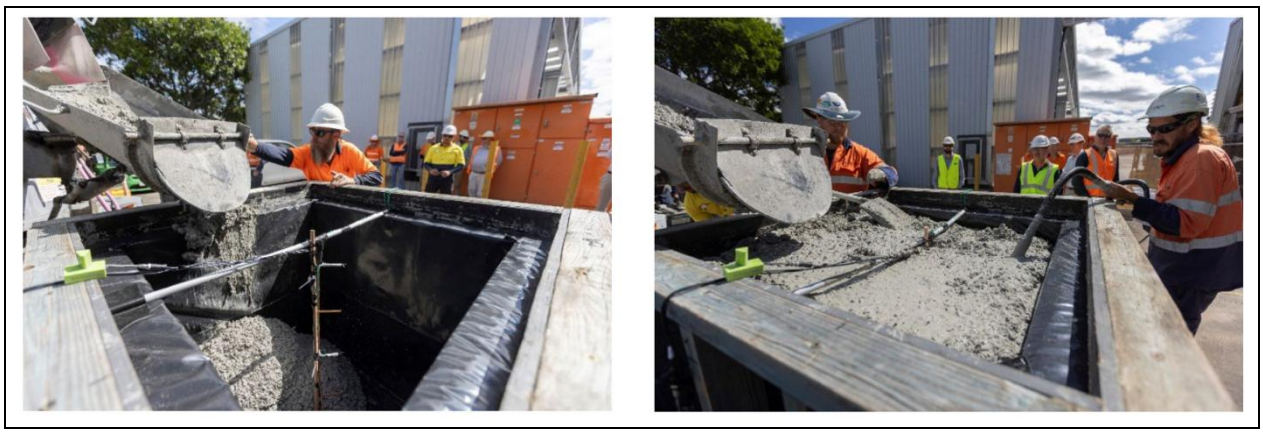
Holcim MOU and other trials indicate growing interest from the building industry

Zeotech is collaborating with Holcim Australia, and recently ran the first AusPozz™ commercial-scale demonstration of its type.

In October 2024, Zeotech signed a non-binding Memorandum of Understanding (MOU) with Holcim Australia, one of the largest integrated suppliers and manufacturers of building materials and solutions in Australia and New Zealand. The agreement provided a framework for Zeotech and Holcim to collaborate and advance high-reactivity metakaolin manufacturing and use in concrete in Australia. It also provided agreement for the parties to collaborate on potential Government funding to develop low-emissions technologies associated with metakaolin production or Holcim Australia products, and the potential for joint ventures or alternative profit-sharing structures related to metakaolin manufacturing using Zeotech's raw ore kaolin and the associated financing and construction of any facilities.

During the June quarter of CY25, the company ran a concrete demonstration at Holcim's largest batching plant in Brisbane, which was the first AusPozz™ commercial-scale demonstration of its type and was attended by several influential concrete and civil engineers from organisations, including Laing O'Rourke, BMD Group, Empower Construction, Icubed Consulting; and the Queensland Department of Transport and Main Roads. The demonstration involved a wind farm type concrete mix design with a 28-day strength target. A full concrete truckload of $3m^3$ was batched using 40% AusPozz™ and 60% GP cement, then poured into a concrete hotbox tester (Figure 6).

Figure 6: Concrete hotbox demonstration



Source: Company

This is a standard practice to determine the heat transfer properties of concrete under stimulated real-world conditions, especially in large-volume applications where there is a risk of high temperature differential between the core and outer regions that causes failure. The objective of the demonstration was to see a minimal heat differential in the concrete, and AusPozz™ concrete mix achieved this. Expert testing for durability, strength and shrinkage all confirmed that AusPozz™ was fit-for-purpose as well as providing a solution for the serious temperature issue and decarbonising the concrete. Beyond exposure to potential future customers, this testwork has informed Zeotech (and its future customers, too) about optimal concrete mix designs for AusPozz™.

Results of the 2025 PFS

Zeotech's 2025 PFS found a 20-year mine life with $1,014m after-tax EBITDA, an NPV of $406m and an IRR of 42%.

Zeotech released its Preliminary Feasibility Study in June 2025 to examine the business case for AusPozz™. It found a 20-year mine life with $1,014m after-tax EBITDA, an NPV of $406m, and an IRR of 42% (Figure 7).

Figure 7: 2025 PFS results

Parameter	Unit	Result
Mine Plan		
Life of Mine	Years	20
Stripping Ratio	t/dry	0.3:1
Mineral Resource	MT	10.87
Production Summary		
Mine Production (DSO)	Kt dry	153
Mine Production (AusPozz)	Kt dry	371
Production Target (DSO)	Kt dry	151
Production Target (AusPozz)	Kt dry	300
Financial Metrics (post-tax)		
Revenue	A$m	3,385
EBITDA	A$m	1,604
Initial Capital Cost	A$m	115
Capital Requirement	A$m	95
Sustaining Capital	A$m	17
Net Cashflow	A$m	1,014
NPV (8% discount)	A$m	406
IRR	%	42
Payback Period	Years	2.1

Source: Company

The project could reduce carbon emissions by an estimated 229,800/t CO2 per annum

Beyond the financial returns, it was found that the project (at nameplate production) could reduce carbon emissions by an estimated 229,800/t CO2 per annum which is equivalent to taking 53,600 petrol-powered cars off the road, planting and growing 3.8 million tree seedlings per year for 10 years and annual carbon emissions from electricity use in over 30,860 homes.

The PFS also examined the potential costs for the project and found just under $115m in capital costs, inclusive of a contingency (Figure 8 and Figure 9), but a payback period of 2.1 years from free cash flows. Early cash flows from direct shipping ore operations could reduce capital requirements to $95m. Annual operating costs would still derive $1,604m EBITDA and $1,014 post-tax cash flow over the life of mine.

Figure 8: Capital cost estimate (A$m)

	Yr 1	Yr 2	Yr 3	Initial capital	Sustaining Capital	LOM total
Mining & DSO	4.8	2.8	-	**7.6**	2.7	**10.3**
AusPozz	25.5	44.5	25.4	**95.4**	12.4	**107.8**
Total (Incl. Contingency)	**30.3**	**47.3**	**25.4**	**103.0**	**15.1**	**118.1**
Contingency	1.9	5.1	4.7	**11.6**	2.3	**13.9**
Total (Incl. Contingency)	**32.2**	**52.4**	**30.1**	**114.6**	**17.4**	**132.0**

Source: Company PFS

Figure 9: Capital cost estimate for AusPozz Manufacturing Facility (A$m)

Area	Cost
Direct costs	
Process plant	54.3
Reagents/Fuels/Services	5
Buildings/User Areas	3
Total PFS Project Direct Costs	**62.3**
Indirect costs	
Construction Indirects	16.5
Management Costs	9.5
Owner's Project Costs	7.2
Total PFS Project Indirect Costs	**33.2**
Total PFS Costs (excl. contingency)	**95.5**
Contingency (11% of Capital Estimate)	10.5
Total PFS Costs (incl. contingency)	**106.0**

Source: Company PFS

The study was supported by a subset of the Toondoon Project total Mineral Resource of 10.87Mtdry and underpins the following production and pricing assumptions (Figure 10).

Figure 10: Kaolin DSO and AusPozz™ pricing

Product	Low Price (A$/t)	High Price (A$/t)	Sales Forecast (tpa)
Kaolin DSO (Wet Tonne)	170	200	158,000
Cosmetic Kaolin DSO (Wet tonne)	500	1,000	10,000
AusPozz (dry tonne)	315	525	290,000
AusPozz Max (dry tonne)	600	1,000	10,000

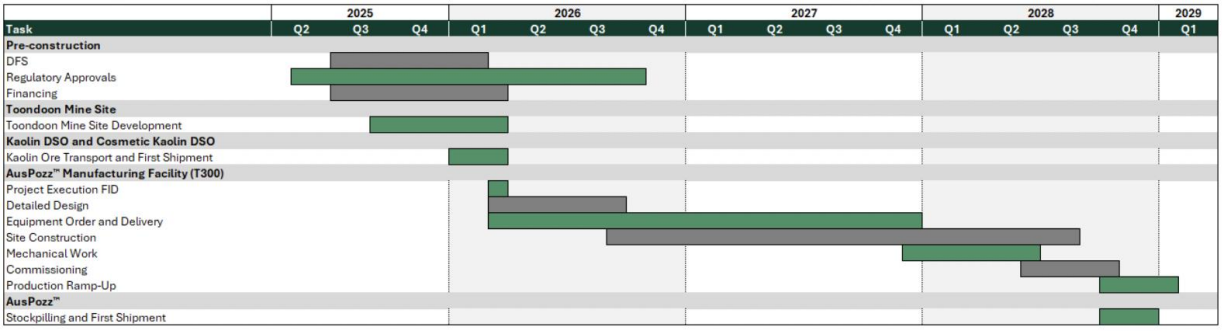
Source: Company PFS, p.30

Zeotech's next step is to secure DSO cash flows and commence AusPozz™ DFS.

What's next?

The immediate priority is to obtain required approvals to deliver on the DSO kaolin offtake by Q1 2026, in conjunction with completing the AusPozz™ Project DFS, which is expected to commence during the current quarter (Q3 2025), leading to a Final Investment Decision in Q1 2026 (Figure 11).

Figure 11: AusPozz™ Project delivery timeline



Source: Company

In the meantime, the company will work to secure necessary regulatory approvals, project financing, and offtake deals for AusPozz™, beyond its initial DSO kaolin offtake deal with MSI China. It also has plans to explore Toondoon Project further to expand and upgrade the Resource. The DFS will refine the technical, regulatory, and commercial aspects, providing a more accurate indication of the company's potential.

Zeotech's management

The company's current board and leadership composition is as follows (Figure 12):

Figure 12: Zeotech's leadership composition

Board of Directors	
Name and Designation	**Profile**
Sylvia Tulloch Non-Executive Chair	Sylvia is a materials scientist with many years' experience in the establishment and management of high technology businesses, with a focus on commercialisation, mineral processing technologies and the cleantech sector. Sylvia is an investor in and Director of many start-up companies, has founded and taken 2 companies to ASX listing and held government advisory positions in the start-up, renewable energy, and manufacturing sectors. Sylvia is currently the Chairman of the ACT government Renewable Energy Innovation Fund (REIF) Business Advisory Board, Chairman of GRIFFIN Accelerator a product of collaboration between several of Canberra's innovation-led institutions, including ANU Connect Ventures, ATP Innovations, Australian National University, Australian Capital Ventures Limited and Capital Angels, CollabIT, CSIRO, eGov Cluster, Entry 29, Lighthouse, NICTA and University of Canberra, and has held several state and federal committee appointments. Sylvia holds a Bachelor of Science (BSc.) and Masters in Materials Science (MSc.) from the University of New South Wales, Australia.
Peter Zardo Managing Director	Peter joined Zeotech as Chief Operating Officer in April 2020 and was appointed Managing Director in July 2020, after spending more than 16 years in the corporate banking division of the Westpac Group. Prior to joining Zeotech, Peter was a Director in the Industry banking division, having completed Westpac's Emerging Leader Program in 2019 and previous to this, spent several years in financial and equity markets. Peter is a member of the Australian Institute of Company Directors (MAICD) and possesses significant experience in business advisory, project management, corporate finance, capital raising, and agribusiness, having accumulated a vast network of relationships across a number of industries, bringing these connections and expertise to his role. Peter has undertaken studies in Applied Science at Charles Sturt University (CSU), Australia.
Shane Graham Executive Director	Shane is a high-performing business leader with over 30 years of extensive experience in the building materials sector. This includes executive management roles with two of Australia's leading building materials companies, including 5 years at Holcim Australia and over 20 years at Boral Limited. During his time at Holcim Australia he held the positions of Executive General Manager – Commercial & Major Projects – in this role he was responsible for securing Major Infrastructure project opportunities and Executive General Manager of Humes Australia. Prior to joining Holcim, he held various Executive General Management roles at Boral, including Executive General Manager – Queensland with National oversight of Boral Concrete, before progressing to the position of Executive General Manager – Major Projects & Project Management Office. Shane holds a Masters of Business Administration (MBA) from the Queensland University of Technology, Australia.

Robert Downey Non-Executive Director	Robert is a qualified solicitor who has practised mainly in the areas of international resource law, corporate law and initial public offerings, as well as mergers and acquisitions. He is currently a partner at Dominion Legal, a boutique law firm in Perth Robert has extensive experience as an advisor, founder and director of various ASX, TSX and AIM companies. Robert holds a Bachelor of Education (B.Ed.) and a Bachelor of Laws (LL.B Hons).
James Marsh Chief Executive Officer	James is a high-performing business leader with extensive experience across a wide range of industrial minerals and the materials sector spanning a 30-year period. This includes senior technical, marketing, and executive management roles with ASX-listed companies, and two global market leaders, including 15 years with Imerys Minerals Limited, a French multinational specialising in the production and processing of industrial minerals. At Imerys, Mr Marsh was the technical representative on a global kaolin calcination team, overseeing metakaolin production. During this period, the use of metakaolin in building product applications and global intellectual property was developed. Further, he was heavily involved in the technical development and marketing of metakaolin from operations in the UK, France, and the USA. James holds a Bachelor of Science (BSc. Hons) from The University of West England, UK.
Scott Burkhart Chief Operating Officer	Scott joined Zeotech in 2021 and has been a key contributor to driving the Company's growth and innovation. Scott has a strong background in corporate finance and business development, having worked for over a decade in corporate and institutional banking at Westpac and Commonwealth Bank, receiving the CEO's Award for his outstanding performance and leadership. Scott has a wealth of experience in business strategy, operations, project management, and corporate finance, as well as a deep understanding of industry analysis, and is passionate about sustainability and creating value for Zeotech's stakeholders. Scott holds a Bachelor of Business in Management and Economics from Auckland University of Technology, New Zealand.
Tim Anderson Chief Commercial Officer	Tim is a proven business leader with over 35 years of industry experience. He has held executive, commercial, management, strategy, and business development roles in diverse sectors, including industrial minerals, technology, water, energy, resources, engineering, and government. Previous roles held by Tim include: Chief Commercial Officer for an Australian industrial minerals company; CEO for a global water utility systems optimisation technology company; and, Business Development Manager for a leading Australian university in commercialisation of its intellectual property. Tim holds an Honours Degree in Civil Engineering from The University of Adelaide, Australia, and a Graduate Diploma from the Australian Institute of Company Directors.

Source: Company

We value Zeotech at $0.30-0.42 per share based on our own NPV-based modelling of AusPozz™ Project

Our valuation of Zeotech's opportunity with AusPozz™

We have modelled Zeotech's opportunity with AusPozz™, and we derive an NPV of $559.4m in our base case and $789.6m in our bull case which amount to $0.30-0.42 per share, respectively (Figure 13). Both these figures are significant premiums to the $406m NPV found in the 2025 PFS – 38% in our base case and 94% in our bull case. We think a re-rating to this level (100% of NPV) is plausible as the company edges closer to production (Figure 14 and Figure 15). Our assumptions are as follows:

- **Project life and operations**. We assumed a 20-year life commencing in late CY28 with 4 products: Kaolin DSO, Cosmetic Kaolin DSO, AusPozz™ and AusPozz Max.
- **Revenue model.** Our base case assumed the 'low price' as outlined in Figure 6 while our bull case assumed a 'midway' point between the Low and High price.
- **Costs and margins.** Using the same Fixed and Variable cost figures as the PFS, this derived an EBITDA margin of just over 40%. We then modelled depreciation as a fixed annual percentage of the project's (original) NPV, then for interest to be paid on the company's financing at 5% (see below). Accordingly, we have not assumed any dilution of equity investors.
- **Capex.** We have assumed the company funds its capex needs with debt finance and repays it gradually over the first decade of operations.
- **Tax.** We assume a corporate tax rate of 25% which is Australia's present rate for companies with >$50m profits.
- **Discount rate.** We used an NPV discount rate of 8%, the same as used in the PFS.

Figure 13: Our valuation of Zeotech

Valuation (A$m)	Base Case	Bull case
Equity value (A$ m)	**559.4**	**789.6**
Shares outstanding (Diluted)	1,879.4	1,879.4
Implied price (A$ cents)	**0.30**	**0.42**
Current price (A$ cents)	0.079	0.079
Upside (%)	277%	432%

Estimates: Pitt Street Research

Figure 14: % of NPV valuation

NPV	A$m	Per share
10%	55.9	0.03
20%	111.9	0.06
25%	139.8	0.07
30%	167.8	0.09
40%	223.7	0.12
50%	279.7	0.15
60%	335.6	0.18
70%	391.5	0.21
80%	447.5	0.24
90%	503.4	0.27
100%	559.4	0.30

Estimates: Pitt Street Research

Figure 15: % of NPV valuation

NPV	A$m	Per share
10%	79.0	0.04
20%	157.9	0.08
25%	197.4	0.11
30%	236.9	0.13
40%	315.9	0.17
50%	394.8	0.21
60%	473.8	0.25
70%	552.7	0.29
80%	631.7	0.34
90%	710.7	0.38
100%	789.6	0.42

Estimates: Pitt Street Research

At the current share price, the company is trading at 26.5% of our base case NPV, 20.9% of our bull case NPV and 37% of the PFS' NPV. We think further catalysts for closing the gap will include:

- The completion and release of a Definitive Feasibility Study (DFS) for AusPozz™,
- The obtaining of all necessary regulatory approvals,
- The securing of financing and commencement of construction and development at the Toondoon Mine Site and at the proposed manufacturing facility in Bundaberg,
- The making of a Final Investment Decision.

All these steps are likely to occur within the next 12 months, and we believe they can make a significant contribution towards helping the company re-rate.

Risks

We see the following key risks to our investment thesis:

- **Funding risk**: Zeotech will likely need finance to realise its ambitions with AusPozz™. Securing finance, particularly on favourable terms, can be difficult for aspiring industrial project developers.
- **Regulatory risk.** The company's ability to realise its ambitions is subject to meeting various regulations, including securing necessary construction and environmental approvals. One possible risk is that Zeotech's mining permits expire in 2030, 4 years after commencement of DSO kaolin mining operation and within the first 2 years of the commencement of commercial-scale AusPozz™ operations, although the Company believes this is low.
- **Commercial risk**. There is the risk that the company may fail to execute its commercial objectives for a variety of reasons, including supply chain issues, construction delays, inability to secure finance, or competition.
- **Pricing risk**. One of the biggest keys to our NPV is assuming the price used in the PFS. If prices turn out to be lower, this could be catastrophic for shareholder value.
- **DFS risk**. There is the risk that the forthcoming DFS could show worse outcomes than the PFS, thus eroding the confidence of potential investors and customers in the company.
- **Key personnel risk**: There is the risk that the company may lose key personnel and be unable to replace them and/or their contribution to the business.

Appendix I – Glossary

ASTM – The American Society for Testing and Materials, which publishes standards for concrete, amongst other materials, products, systems, and services.

Calcination – A process of heating a solid material, usually to a high temperature, in a controlled atmosphere to induce thermal decomposition or phase transformations. This process is applied to active natural kaolin to produce metakaolin.

Calcium silicate hydrate – The substance formed when Portland cement reacts with water and is the culprit for concrete's strength and binding properties.

Crystallisation – The process whereby atoms or molecules arrange themselves into a highly ordered, 3D structure called a crystal.

DSO – Short for Direct Shipped Ore, minerals that can be dug up, transported to port, and loaded straight onto a ship without any need for processing.

Dmt – Dry Metric tonne, which is 1,000kg or 2,204.62 pounds.

Fly ash – A fine powdery residue resulting from burning coal in power plants. It is commonly used in concrete to improve strength, durability, and workability.

GL – General-Purpose Limestone Cement. One of the two most common forms of cement in Australia, so-called because it includes limestone as a mineral addition, typically ranging from 8% to 20%.

GP – General Purpose Cement. The other of the two types of Portland cement is widely used in Australia.

High-reactivity metakaolin – A manufactured, artificial pozzolan made by carefully calcining purified kaolinite clay at controlled temperatures (typically 650-800°C). This process results in an amorphous, finely divided aluminosilicate material that is highly reactive with the calcium hydroxide produced during cement hydration.

Kaolin – A white, clayey mineral composed of the mineral kaolinite.

Kiln – It is a rotary tool used in the cement industry for calcining lime.

Metakaolin – Kaolin that is heated to a high temperature.

Microns – Also known as micrometres, a unit of measurement whereby 1cm is 10,000 microns. In cement production, particle sizes are shrunk during distribution to save energy and reduce costs.

Portland cement – The most common type of cement in general use around the world, usually made from limestone.

Portlandite – A mineral that is a byproduct of cement hydration and is also known as hydrated lime. It is the naturally occurring form of calcium hydroxide.

Pozzolanic – Pozzolanic Materials that are able to react with calcium hydroxide in the presence of water to form cementitious compounds. These compounds contribute to the strength and durability of concrete.

SCM – In this context, Supplementary Cementitious Material, what Zeotech hopes its AusPozz™ high-reactivity metakaolin will become.

Slag – Stony waste matter separated from metals during the smelting or refining of ore.

Synthesise – To make something by synthesis, especially in the context of chemistry.

VRM – A vertical roller mill, a type of grinding machine used to grind materials into extremely fine powder.

Zeolites – A group of microporous, crystalline aluminosilicate minerals known for their unique ability to act as molecular sieves, ion exchangers, and adsorbents.

Appendix II – Capital Structure

Class	In Millions	% of dully diluted
Ordinary shares	1,879,378,065	98%
Options	6,700,000	0%
Performance shares	33,000,000	2%
Fully diluted shares	1,919,078,065	

Source: Company

Appendix III – Analysts' Qualifications

Stuart Roberts, lead analyst on this report, has been an equities analyst since 2002.

- Stuart obtained a Master of Applied Finance and Investment from the Securities Institute of Australia in 2002. Previously, from the Securities Institute of Australia, he obtained a Certificate of Financial Markets (1994) and a Graduate Diploma in Finance and Investment (1999).
- Stuart joined Southern Cross Equities as an equities analyst in April 2001. From February 2002 to July 2013, his research speciality at Southern Cross Equities and its acquirer, Bell Potter Securities, was Healthcare and Biotechnology. During this time, he covered a variety of established healthcare companies, such as CSL, Cochlear and Resmed, as well as numerous emerging companies. Stuart was a Healthcare and Biotechnology analyst at Baillieu Holst from October 2013 to January 2015.
- After 15 months over 2015–2016 doing Investor Relations for two ASX-listed cancer drug developers, Stuart founded NDF Research in May 2016 to provide issuer-sponsored equity research on ASX-listed Life Sciences companies.
- In July 2016, with Marc Kennis, Stuart co-founded Pitt Street Research Pty Ltd, which provides issuer-sponsored research on ASX-listed companies across the entire market, including Life Sciences companies.
- Since 2018, Stuart has led Pitt Street Research's Resources Sector franchise, spearheading research on both mining and energy companies.

Nick Sundich is an equities research analyst at Pitt Street Research.

- Nick obtained a Bachelor of Commerce/Bachelor of Arts from the University of Sydney in 2018 and the designation of Financial Modelling & Valuation Analyst by the Corporate Finance Institute. He has also completed the CFA Investment Foundations program.
- He joined Pitt Street Research in January 2022. Previously, he worked for over three years as a financial journalist at Stockhead.
- While at university, he worked for a handful of corporate advisory firms.

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