

## Due Diligence and Valuation Report

Arrowhead Code: 30-03-01  
 Coverage reinitiated: February 21, 2024  
 This document: February 21, 2024  
 Fair share value bracket: AUD 0.10 – 0.18  
 Share price (February 21, 2024): AUD 0.036<sup>i</sup>

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### Market Data<sup>ii</sup>

52-Week Range:	AUD 0.024 – AUD 0.048
Average Daily Volume (3M Avg.):	950,707
Market Cap (February 21, 2024):	AUD 29.3 million (mn)

### Company Overview:

Suvo Strategic Minerals Limited (Suvo, SUV, or the company) is Australia's only hydrous kaolin producer, with a market share of ~90%. Hydrous kaolin is a mineral used in several applications including ceramics, paper packaging, paint and many more. The company's Pittong operation, located in Victoria, generated AUD 11 mn in turnover in FY 2023. More recently, the Pittong plant was upgraded and commissioned, validating a nameplate capacity of 60k tpa. Suvo's research and development (R&D) into kaolin usage led to the creation of several geopolymer concrete (green concrete) formulations, which the company intends to commercialize. The company also owns the Trawalla and Gabbin kaolin projects and the Eneabba silica sand project in Western Australia.

The Pittong operation serves as a reliable source of revenue from longstanding customers (20+ years). The 100% owned Trawalla and Gabbin kaolin projects contain a further ~85mt of kaolin resources. The Trawalla kaolin project is a fully permitted and licensed greenfield mine site, located only 23 kms from the Pittong facility. The Gabbin kaolin project located in Western Australia is currently at the pre-feasibility stage. The Eneabba silica sand project is now in its scoping stage and holds inferred resource base of 216 Mt.

Through product innovation and a partnership with Murdoch University, Suvo owns intellectual property for a pilot-scale concrete batching plant and several geopolymer concrete formulations, which have shown at least a 50% reduction in greenhouse gas (GHG) emissions compared to concrete produced using Ordinary Portland Cement (OPC).

Suvo is listed on the Australian Securities Exchange (ASX) under the ticker 'SUV'.



Company: Suvo Strategic Minerals Limited  
 Ticker: ASX: SUV  
 Headquarters: Perth, Australia  
 CEO: Bojan Bogunovic  
 Website: suvo.com.au  
 InvestorHub: investorhub.suvo.com.au/welcome

**Key Highlights:** (1) Suvo returned the Pittong facility to its nameplate capacity of 60,000 tpa in February 2023, by investing AUD ~5mn on its modernization; during H1 2024, SUV sold 10.2kt of kaolin from this plant; (2) SUV appointed three key personnel to its sales and marketing team in FY 2023, in addition to signing nine new distributor partners across Asia and the UK, to bolster the sales of its kaolin product; (3) Suvo owns the intellectual property (IP) for a geopolymer concrete-batching plant developed by Murdoch University; it has been invited for a demonstration pour of Collicrete, a low-carbon concrete formulation, at a section of the Bunbury Outer Ring Road Project, in the South-West of Western Australia; (4) Suvo signed a non-binding MoU with PERMAcast to further develop end user applications for its licensed IP, low carbon concrete; (5) SUV has partnered with IBU-tec Advanced Materials AG (Germany) to undertake the calcination of Pittong hydrous kaolin, using an electrified calciner; (6) Suvo has all necessary mining permits and licenses for the greenfield mine site at Trawalla, with a total mineral resource estimate (MRE) (indicated & inferred) of 12.7 Mt; (7) SUV owns the Gabbin project, which is in its exploration stage with a total MRE (indicated & inferred) of 72.5 Mt of kaolinized granite; (8) Suvo has raised AUD 2.5 mn from the issue of 83.33 mn shares in a placement and upto AUD 1 mn (33.33 mn shares) under a share purchase plan (on the same terms as the placement) to ramp up Pittong production and to support R&D activities to advance geopolymer concrete; (9) SUV has received purchase orders from four new customers with an annual demand of ~630 tonnes that will generate additional revenue of AUD 0.43 mn;

**Key Risks:** (a) Any fluctuations in the global prices of kaolin could impact the cash flows and future projects of the company; (b) The availability of future funding.

**Valuation and Assumptions:** Given the due diligence and valuation estimates, Arrowhead believes that Suvo's fair market value per share is AUD 0.10 to AUD 0.18, derived using a sum of parts (SOP) methodology.

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## 1. Investment Thesis

Arrowhead is initiating coverage on Suvo Strategic Minerals Limited (Suvo, SUV, or the company) with a fair value of AUD 0.10 per share in the low-bracket scenario and AUD 0.18 per share in the high-bracket scenario, derived using SOP methodology. Suvo's share price stood at AUD 0.036 on February 21, 2024 with a market capitalization of AUD 29.3 mn, which translates to an upside of ~3x-5x based on our valuation.

***Suvo is Australia's sole hydrous kaolin producer. Located in Pittong, Victoria, the plant has a processing capacity of 60k tpa. The company aims to fully optimize its Pittong facility and leverage the cash flows generated from the operation to explore and advance its other projects: the fully permitted greenfield Trawalla kaolin project, the pre-feasibility Gabbin kaolin project and the scoping stage Eneabba silica sand project. Additionally, Suvo's geopolymers concrete IP commercialization pathway has the potential to add further upside and generate value for shareholders. No value has been attributed to geopolymers concrete in our valuation.***

### ***Restoration of nameplate capacity at the Pittong plant***

When the Pittong plant was acquired in FY 2021, it was operating in a run-down condition with its production capped at 20,000 tpa. Following the acquisition, Suvo made an investment of AUD ~5 mn to modernize the plant and increase production capacity to around 60,000 tpa. The upgrade was completed in February 2023, when the company operated the plant continuously over a 5-day period to yield over 1,000 tonnes of output. This validates the company's ability to ramp up its annual sales to 50-60kt based on demand for the output. Suvo produced ~18kt of kaolin in FY 2023, and aims to operate the plant at its full capacity by FY 2026.

### ***A sound sales and marketing strategy***

Apart from ramping up production, Suvo is highly focused on strengthening its sales and marketing efforts to boost the sales of its kaolin output. Accordingly, the company appointed three key sales personnel based in Asia in the first half of FY 2024. These personnel have a combined experience of more than 60 years in the kaolin space and have worked for large companies and represented clients across industries such as paints, inks, rubber, plastics and paper, which have direct application for kaolin. A team with geographically diverse experience and networks should allow for deeper market penetration, lower cost compared to a previous centralized marketing arrangement, and foster closer relationships with regional customers. Suvo has also appointed several established global chemical distribution companies throughout the area to provide crucial on-the-ground expertise and distribution networks, supporting efficient product delivery and local stock availability. There are currently more than 20 end-users testing Suvo's kaolin for suitability across various industries and applications.

### ***Investment in product development for better realizations and higher output***

Calcined kaolin demands a premium of 20-40% in its pricing compared to hydrous kaolin. Accordingly, Suvo has hired German thermal processing specialists IBU-tec Advanced Materials AG (IBU-tec) for lab-scale testing of its hydrous kaolin to produce calcined kaolin. Calcined kaolin is generated when hydrous kaolin undergoes high-temperature firing, typically around 1,050°C. The result is a denser kaolin structure, leading to enhanced opacity and increased whiteness. Over the next six months, subject to successful lab-scale trials with IBU-tec, 1kg samples of calcined kaolin will be distributed to customers, allowing for testing and product evaluation.

The Pittong lab team has also initiated lab-scale trials of blending Pittong hydrous kaolin with ground calcium carbonate in different proportions (10-30%). This blending process holds the potential to expand Pittong's saleable output from 60,000 tpa up to 78,000 tpa, depending on the blending percentage used. The resulting product would be positioned for premium applications such as top coats in paper and high-gloss paints. On successful lab-scale trials, Suvo plans to produce a 25kg batch sample, enabling the distribution of 1kg samples to customers for testing and product evaluation. The company anticipates concluding lab-scale testing and delivering product samples to end-users by Q1 of CY 2024.

### ***Potential upside from development of Trawalla deposit***

Suvo's Trawalla kaolin deposit is very close (23 kms) to its Pittong operation. With a total indicated and inferred JORC compliant mineral resource of 12.7 Mt, it is about four times the size of the Pittong deposit. As the company progresses towards ramping up its output from the Pittong plant and reaching a peak over the next couple of years, the Trawalla deposit provides a solid way forward for the company to continue to expand its production. A second production facility

at Trawalla would allow Suvo to meet the demand for kaolin coming from the Asia-Pacific market. This should drive the company's growth and shareholder value over the near term.

### ***Geopolymer concrete – Suvo's 'blue sky'***

SUV's consistent R&D efforts to explore new applications for kaolin have resulted in its natural extension into geopolymer concrete, or green concrete. In October 2023, the company entered into an agreement with Murdoch University, licensing a pilot-scale geopolymer concrete-batching plant and a low-carbon concrete formulation named 'Collicrete'. Preliminary results from trials conducted by Murdoch using the geopolymer concrete-batching plant and the Collicrete formulation indicated a GHG emission reduction of around 50% compared to concrete using ordinary cement. Suvo was also recently invited to conduct a demonstration pour of Collicrete at identified sections on the Bunbury Outer Ring Road Project, the largest road infrastructure project in the history of the South-West of Western Australia. This demonstration pour, if successfully completed, would be a proof-of-concept for the use of green concrete and could result into an opportunity to use Collicrete on other government infrastructure projects.

Additionally, SUV signed a non-binding MoU with PREMAcast, a leading supplier of precast and prestressed concrete products for the state's major infrastructure, oil and gas and mining projects. The purpose of the MoU is to work collaboratively to negotiate in good faith a strategic partnership agreement to develop several low carbon concrete formulations, specifically for PERMAcast to deploy in selected end use applications. This agreement will enable Suvo to commercialize its licensed IP.

### ***Untapped exploration opportunities at Gabbin and Eneabba***

In addition to its existing operations at Pittong and mineral resource base at Trawalla, Suvo owns two large exploration projects: the Gabbin kaolin project and the Eneabba silica sands project. The Gabbin kaolin project has a mineral resource estimate of 72.5 Mt, and while the project is still unexplored, it already has four exploration licenses in place. Accordingly, the company could develop this deposit as part of its 5-year expansion plan, adding to the firm's long-term value. The company is also actively considering non-dilutive funding options to advance the Eneabba project in FY 2024. The funding could enable Suvo to initiate drilling activities inside and outside the privately owned cleared farmland, conduct assays, and define and expand the existing resource base of 216 Mt. This project has the potential to add a significant upside to the company's future value.

### ***Specific risks could impede growth plans***

#### ***Pricing of kaolin on the open market***

Kaolin, a versatile product with diverse applications in industries such as paints, ceramics, fiberglass, rubber, paper and plastics, is highly commoditized in the global markets. Consequently, the pricing of kaolin is closely linked to demand in its end markets and industries. Given that the kaolin market is fragmented globally, kaolin producers may charge varying prices to customers to capture a larger market share. Wide fluctuations in kaolin pricing globally could directly impact Suvo's pricing and margins, and indirectly influence its cash flows.

#### ***Funding for future growth opportunities***

Recently, Suvo raised a sum of AUD 2.5 mn through placement for 83.33 mn shares at a price of AUD 0.03 per share. Further, the company aims to raise up to AUD 1 mn through a SPP under the same terms as the placement in March 2024. The funding from the placement and SPP will support the ramp up of production at Pittong to cater to new sales contracts. Further, it will provide additional working capital and support R&D activities for geopolymer concrete. However, the company would need additional funds in the future to conduct feasibility studies at its Trawalla deposit and establish a production plant at the site. The company could also work to advance its exploration projects at Gabbin (kaolin) and Eneabba (silica sands). While SUV expects to leverage the cash flows from its Pittong operations to contribute to its future expansion, it would require sizeable funding to operationalize any of these projects. Timely availability of sufficient funding (debt or equity) would be crucial to the company's long-term growth and shareholder value.

## 2. Business Overview

### 2.1 Company Introduction<sup>iii</sup>

Headquartered in Perth, Suvo is Australia's sole producer of hydrous kaolin, which is a sought-after mineral with applications in various industries such as ceramics, paper packaging, paint and others. The company operates the Pittong mine and processing facility in Victoria (active since 1972) and is vigorously exploring near-term kaolin and high-purity silica sand assets in Victoria and Western Australia. The company was listed on the stock exchange in mid-2020 through the acquisition of the Eneabba Silica Sands Project and the Gabbin Kaolin Project (respectively from Watershed Enterprise Solutions Pty Ltd and Mt Marshall Kaolin Pty Ltd). Shortly after its listing, Suvo acquired the Pittong operations of Imerys S.A. for a sum of AUD 3 mn. A short summary of the projects is given below:

<b>Exhibit 1: Suvo's Project Pipeline<sup>iv</sup></b>			
<b>Project</b>	<b>Resource Estimate - Indicated &amp; Inferred</b>	<b>Project Status</b>	<b>Details</b>
Pittong Mine and Processing Plant	5.7 Mt of kaolinized granite	Production ongoing (YTD 2024 - ~10.2kt)	Sole producer of hydrous kaolin in Australia
Trawalla Kaolin Project	12.7 Mt of kaolinized granite	Fully permitted and licensed greenfield mine site; mining is yet to commence	Trawalla deposit is 4x the size of Pittong deposit
Gabbin Kaolin Project	72.5 Mt of kaolinized granite	Exploration stage; four granted exploration licenses	A mining access agreement is in place with the landowner and occupier for the current resource area
Eneabba Silica Sands Project	Silica sands – 216 Mt	Scoping study level; four granted exploration licenses	Further drilling is required to extend the resource base
Geopolymer concrete	NA	Intellectual property for a pilot-scale concrete-batching plant and several geopolymer concrete formulations	Invited for a demonstration pour of Collicrete at a section of the Bunbury Outer Ring Road Project

By leveraging its existing operations, near-term exploration and product development initiatives, particularly those related to green concrete, we believe that Suvo is primed to capitalize on opportunities in the kaolin, silica sand and concrete markets.

### 2.2 Pittong Kaolin Operations<sup>v</sup>

The Pittong operations, located 40 kms west of Ballarat in Victoria, include the sole wet kaolin mine and processing plant in Australia, which has been in operation since 1972. The JORC compliant mineral resource estimate of the Pittong asset contains 3.74 Mt indicated and 1.97 Mt inferred of kaolinized granite.

The plant was acquired by Suvo in January 2021 from French multinational Imerys S.A. for a sum of AUD 3mn. At the time of the acquisition, the plant was in a run-down condition with production capped at 20,000 tpa. Following the acquisition, the company made a strategic investment of roughly AUD 5 mn to modernize the plant and restore it to its nameplate processing capacity of 60,000 tpa.

#### 2.2.1 Production process

The Pittong mine is strategically located within 2 kms of the processing plant. Crude kaolin is transported to the plant where it is processed into four separate product forms for end users:

- moisture lump

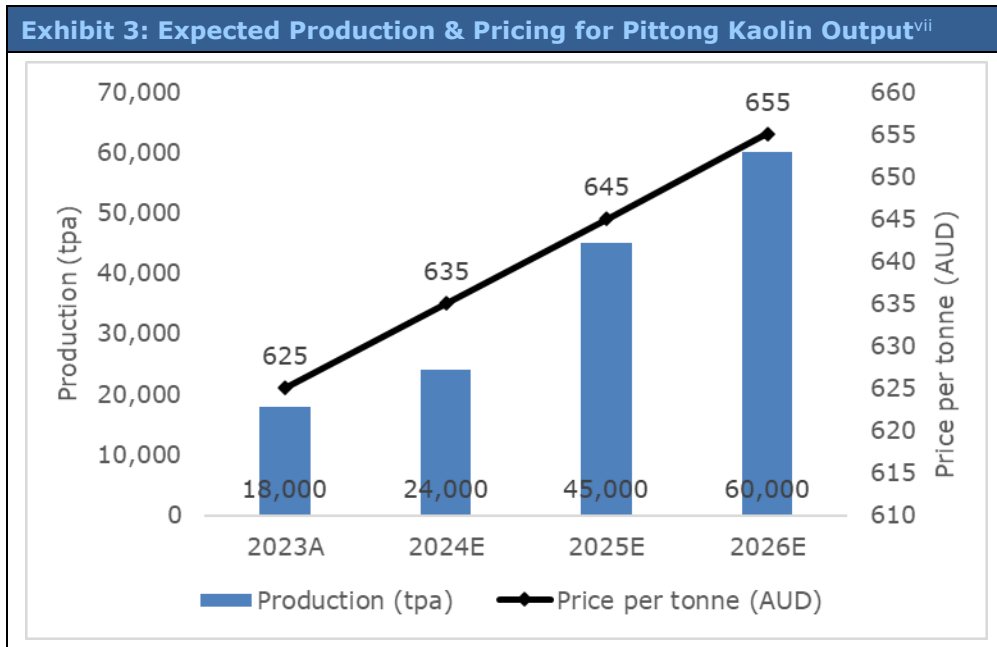
- high solids slurry
- moisture powder
- moisture pulverized powder

The solids slurry is used in paper and board manufacturing. The other products are used in paper, coatings, paint and specialist industries including rubber and pharmaceutical applications.

**2.2.2 Project Economics**

The Pittong upgrade project was completed on time and within budget in February 2023. The plant was run continuously over a five-day period, achieving a production output of just over 1,000 tonnes. This translates into an annualized production capacity of 52,000 tpa. This can be further improved by moving to a continuous seven-day operation.

In FY 2023, Suvo sold circa 18kt of kaolin product at an average selling price of AUD 600 per tonne, generating revenue of over AUD 11 mn. In 1H 2024, the company sold ~10.2kt of kaolin, generating revenue of AUD 6 mn. It sold an average of 1,706 tonnes of hydrous kaolin per month, representing a 14% increase compared with about 1,500 tonnes per month in FY 2023. This increase in sales is reflective of the successful execution of the sales and marketing strategy, which was developed in 1H 2024.



**2.2.3 Sales & Marketing Strategy<sup>viii</sup>**

Kaolin can be used in a variety of industries including adhesives, inks, paints, paper and board, pharmaceuticals and rubber. Suvo’s client base is diverse but includes loyal customers who have been purchasing hydrous kaolin from the company for decades. Some of its large clients include:

- Paint companies – Dulux, Nippon Paint, TOA-Chugoku Paints, PPG Industries and Akzo Nobel

- Paper and packaging companies – Visy and Norske Skog Boyer
- Adhesive companies – Bostik, Selleys and Henkel

**Exhibit 4: Suvo's Broad Customer Base<sup>ix</sup>**



Currently, Suvo is the only hydrous kaolin producer in Australia, with a market share of over 90%. With the restoration of nameplate capacity at the Pittong plant, Suvo has strategically shifted its focus toward expanding its sales footprint across Asia. The Asian kaolin market is estimated to be around 5mn tpa and is a logical target for Suvo's increased production.

To tap into this market, the company has distributed samples of its kaolin output to over 20 end-users throughout the Asia-Pacific market, with the aim of validating Pittong kaolin on quality and performance. Management is confident in its ability to sell the increased production throughout from the Pittong facility.

Based on this initiative, Suvo received a purchase order for an additional 250 tpa with deliveries commencing in February 2024. The pricing for this order is 13% higher than the average selling price and the product is

earmarked for the domestic plasterboard industry.

To spearhead its expansion into the region, Suvo appointed three key personnel to its sales and marketing team in 1H 2024, strategically placing them in Hong Kong, India and Indonesia. The newly hired team includes:

- **Sales Manager, Asia Pacific – Based in Hong Kong**
  - 20 years' experience at leading global chemical companies such as Chevron Philips, Engelhard, BASF and KaMin
  - Network of clients includes distribution partners and end-users such as PPG, Akzo Nobel, Kansai Paint & Nippon Paint
- **Sales Manager, India – Based in India**
  - 20 years' experience in technical sales
  - Served as Technical Sales Manager at Imerys Performance Minerals for paints, coatings, inks, rubber & plastics from 2016 to 2022
  - Holds a Master's Degree in Paint Technology and a Bachelor of Science in Industrial Chemistry
- **Consultant, Paper & Board – Based in Indonesia**
  - 35 years' experience
  - Was Business Manager for the Paper Industry at Imerys Asia Pacific, Kaolin Activity Asia Pacific from 2005 to 2017

The new sales team has total experience of more than 60 years and its members are veterans in technical sales, particularly for kaolin. They previously worked at global companies and served renowned clients in industries such as inks, rubber, plastics and paper. The geographically diverse team allows for deeper market penetration and localized customer support. This new approach offers a significant cost advantage compared to the previous centralized marketing arrangement based in Perth. We believe the streamlined team structure reduces overhead expenses while fostering closer relationships with regional customers.

Suvo recognizes the importance of strong local partnerships in the Asia-Pacific region. Accordingly, it has appointed several established global chemical distribution companies throughout the area to provide crucial on-the-ground expertise and distribution networks, supporting efficient product delivery and local stock availability.

Below is a summary of the company's plan for product sampling in Asia by country and industry. Management is optimistic about securing near-term sales to targeted customers.

Exhibit 5: Newly Appointed Kaolin Distribution Partners That Have Received Pittong Samples <sup>x</sup>		Exhibit 6: New Customers Testing Pittong Kaolin by Application and Country <sup>xi</sup>				
Country	Month of Appointment of Distributor	Country	Paper & Board	Paint, Rubber & Adhesives	Pharma & Cosmetics	Ceramics
Thailand	July 2023	Thailand	✓	✓		✓
Indonesia	September 2023	Indonesia	✓	✓		
Philippines	September 2023	Korea	✓	✓		
Vietnam	August 2023	Japan	✓	✓		
Korea	August 2023	China	✓	✓	✓	✓
Japan	August 2023	India		✓		
China	September 2023	Europe (UK)		✓	✓	
India	July 2023					
United Kingdom (UK)	August 2023					

Suvo plans to capitalize on rising demand for kaolin by expanding sales to allow Pittong to remain a reliable source of high-quality hydrous kaolin for years to come.

In January 2024, Suvo received additional purchases orders from four new customers after Pittong hydrous kaolin passed quality and performance tests. The first shipments for these customers have been booked for February and March 2024 with annual hydrous kaolin demand expected to be around 630 tonnes. These orders have been booked at an average price of AUD 677/tonne, 15% higher than the company's average price in the previous quarter. This is expected to generate a revenue of AUD 0.43 mn for the company.

### 2.2.4 Calcined Kaolin<sup>xii</sup>

Calcined kaolin is generated through the calcination process, wherein hydrous kaolin undergoes high-temperature firing, typically around 1,050°C. This procedure is commonly carried out in a kiln, also referred to as a 'calciner', resembling a cement kiln. In essence, calcination involves heating kaolin until its free water evaporates entirely, and any organic impurities are incinerated. The result of this calcining process is a denser kaolin structure, leading to enhanced opacity and increased whiteness.

While calcined kaolin has benefits in various applications such as the rubber, ceramics and plastic industries, demonstrable advantages in the paper and paint industries include:

- Within the paper industry, opacity denotes the degree of translucency or transparency in a sheet of paper. A high level of opacity in paper facilitates clear and legible printing without the interference of markings from the reverse side.
- In the paint industry, calcined kaolin enhances tinting strength, a characteristic that gauges the extent to which one color is modified by the introduction of another. A color with higher tinting strength exhibits greater resilience to alterations when blended with additional colors. Paints featuring finely ground and premium-quality pigments tend to possess higher tinting strength.

IBU-tec Advanced Materials AG (Germany) will undertake the calcination of Pittong hydrous kaolin, using an electrified calciner, to generate calcined kaolin. In response to substantial demand from existing customers in the Asia-Pacific region, lab-scale testing has been initiated.

Suvo's current Australian customers import around 10kt of calcined kaolin annually. In the Asia-Pacific market, calcined kaolin is sold at a price premium of around 20% to 40% (~AUD700-800 per tonne) compared to Suvo's current weighted average selling price (~AUD 600 per tonne). Over the next six months, subject to successful lab-scale trials with IBU-tec, 1kg samples should be distributed to customers, allowing for testing and product evaluation.



**Exhibit 7: Potential upside to Suvo's revenue due to higher average selling price of Calcined Kaolin<sup>xiii</sup>**

Suvo's Estimated Financial Performance	Units	2023A	2024E	2025E	2026E
Production	Tpa	18,000	24,000	45,000	60,000
Average selling price for hydrous kaolin	per tonne	625	635	645	655
Revenue	AUD mn	11.3	15.2	29.0	39.3
Average selling price for calcined kaolin	per tonne		700	750	800
Revised Revenue	AUD mn		16.8	33.75	48
<b>Potential Revenue upside %</b>	<b>%</b>		<b>10.2%</b>	<b>16.3%</b>	<b>22.1%</b>

## 2.2.5 Product Development Through Blending<sup>xiv</sup>

The Pittong laboratory has initiated product development efforts by combining Pittong hydrous kaolin with ground calcium carbonate. This blending process holds the potential to expand Pittong's saleable product range beyond the 60,000 tpa capacity. The import cost of GCC to Melbourne port is around USD 95 per tonne, notably lower than the production cost of Pittong hydrous kaolin. The resulting product will be positioned for premium applications such as topcoats in paper and high-gloss paints. On successful lab-scale trials, there are plans to produce a 25kg batch sample, enabling the distribution of 1kg samples to customers for testing and product evaluation. The company anticipates concluding lab-scale testing and delivering product samples to end-users by Q1 CY 2024. The Pittong lab team will commence lab-scale trials by blending 10%, 20% and 30% GCC with Pittong's hydrous kaolin. The potential increase in saleable product, based on the various blends, is shown in the table above.

**Exhibit 8: Blending Kaolin with GCC to Increase Overall Output from Pittong Plant<sup>xv</sup>**

Pittong Production Quantity Blended Per Year	Additional Saleable Product in Tonnes		
	10% Blend with GCC	20% Blend with GCC	30% Blend with GCC
10,000	1,000	2,000	3,000
20,000	2,000	4,000	6,000
30,000	3,000	6,000	9,000
40,000	4,000	8,000	12,000
50,000	5,000	10,000	15,000
60,000	6,000	12,000	18,000

Based on Arrowhead estimates, Suvo is expected to generate an EBITDA of AUD 1.25 mn in FY 2024, which would increase to AUD 12.2 mn in FY 2026, if the company reaches its full capacity at the Pittong processing plant. In case, the company manages to increase its saleable product from 60k tpa to 78k tpa (30% blend with GCC), its EBITDA could go up to AUD 15.8 mn in FY 2026.

## 2.2.6 Funding

Suvo raised a sum of AUD 2.5 mn through placement by issuing 83.33 mn shares for AUD 0.03 per share in February 2024. Further, the company aims to raise up to AUD 1 mn for 33.33 mn shares in March 2024 through a share purchase plan which will have terms similar to the placement. The company will not accept oversubscription under the SPP. The funds from the placement and SPP will support the ramp up of production at Pittong, which will be required to service new sales contracts. The placement will also provide additional working capital that will ensure ongoing value across Suvo's wider portfolio, specifically R&D related to advancing geopolymers concrete.

## 2.3 Trawalla Kaolin Project<sup>xvi</sup>

The Trawalla kaolin deposit (MIN 5365) is 100% owned by Suvo and is located only 23 kms from the Pittong processing facilities. MIN 5365 contains an area of 236 hectares and was granted in June 2002. The total indicated and inferred JORC compliant mineral resource is 12.7 Mt of kaolinised granite, yielding 3.5 Mt (saleable) of <45µm bright white kaolin with bleached ISO brightness of 83.7. It is a fully permitted and licensed greenfield mine site, which is about four

times the size of the Pittong deposit. Although all permits and licenses for the mine are in place, the company has yet to commence mining activities there.

Once the Pittong plant reaches full capacity over the next two years, Suvo plans to initiate feasibility studies on the deposit and explore the possibility of establishing a second kaolin plant at the Trawalla site. This plant would likely be at least twice the size of the Pittong plant, suggesting potential upside for the company's growth and value.

**Exhibit 9: Trawalla Resource Estimate<sup>xvii</sup>**

Category	Kaolined Granite	Yield <45µm	Kaolin Tonnes	Al <sub>2</sub> O <sub>3</sub>	SiO <sub>2</sub>	K <sub>2</sub> O	Fe <sub>2</sub> O <sub>3</sub>	TiO <sub>2</sub>	LOI
	Mt	%	Mt	%	%	%	%	%	%
Indicated	9.9	27.7	2.8	36.44	48.10	0.43	0.81	0.55	13.47
Inferred	2.8	28.3	0.8	35.90	49.02	0.49	1.03	0.59	13.40
Total	12.7	27.8	3.5	36.33	48.30	0.45	0.86	0.56	13.45

*Note: Mineral resources are reported in accordance with the JORC Code. Resources are constrained by the ML5365 tenement boundaries. Resources are in thousand metric tonnes of final product. Differences may occur due to rounding off. In situ density applied = 1.6 t/m<sup>3</sup>*

## 2.4 Geopolymer Concrete<sup>xviii</sup>

Cement production, the binder required to make concrete, stands as the largest single industrial contributor to carbon pollution globally, accounting for 8% of total emissions, equivalent to the entire global car fleet. It is essential to distinguish between cement and concrete; cement is the binder sold in grey powder bags, while concrete is the finished product. In cement production, roughly 50% of GHG emissions result from limestone combustion in a kiln at 1,400°C, with energy for the kiln constituting around 40%, and plant electricity and transportation making up the remaining 10%.

Geopolymer concrete is a low emission, environmentally friendly alternative to traditional cement-based concrete. Geopolymer concrete is produced by chemically reacting aluminate and silicate-bearing materials with caustic activators such as metakaolin, fly ash, ground blast furnace slag and other waste-derived components.

According to scholarly research, the production of metakaolin, compared to cement, achieves a 50% reduction in GHG emissions. This reduction is attributed to the lower temperature requirement (700°C versus 1,400°C), resulting in a lower carbon footprint for energy consumption, and the production of water instead of carbon dioxide, in stark contrast to current cement industry practices.

In October 2023, Suvo signed an IP agreement with Murdoch University, licensing a pilot-scale geopolymer concrete-batching plant and a low-carbon concrete formulation named Collicrete. Murdoch University has built a pilot-scale geopolymer-batching plant, on which Suvo now owns the intellectual property, in Collie, some 200 km southeast of Perth, where geopolymer concrete trials have been conducted over the last six months. Various products were produced by the batching plant using the Collicrete formulation, including retaining wall blocks, wall panels and aprons. Preliminary results from the trials, as reported by Murdoch, indicate a GHG emission reduction of about 50% compared to concrete using ordinary cement.

### Demonstration pour opportunity

In January 2024, Suvo was invited by the Sustainability Waste Alliance (SWA) to complete a demonstration pour of Collicrete on sections on the Bunbury Outer Ring Road Project, the largest road infrastructure project in the history of the South-West of Western Australia. The invitation involves the identification of potential sites, with Suvo intending to utilize the mobile geopolymer pilot batching plant located in Collie, Western Australia. The company plans to collaborate with an operational concrete batching plant owner capable of retrofitting the geopolymer pilot batching plant to facilitate the demonstration project. If successful, the demonstration pour may present the opportunity to use Collicrete in other government infrastructure projects.

As a notable aspect of the invitation, Suvo has been offered membership in the Green Deal Alliance (GDA), a collaborative effort between SWA, OMTID and industry stakeholders. The GDA aligns with the Waste Avoidance and Resource Recovery Strategy 2030 (WARRS) of the Western Australian state government, envisioning the transformation of Western Australia into a sustainable, low-waste, circular economy. This membership underscores Suvo's commitment

to advancing geopolymers concrete technologies and exploring various commercialization strategies for Collicrete and other geopolymer formulations derived from waste materials, aligning with the broader goals of the GDA and WARRS.

To further explore the green concrete market, Suvo plans to initiate studies for commercial scale-up of the pilot batching plant, which can produce 5 cubic meters per hour, enabling commercial-scale production of Collicrete and other geopolymer concrete formulations, incorporating metakaolin and various waste-derived products such as fly ash. Recently, the company created two lab-scale geopolymer concrete formulations using metakaolin and fly ash and the results were promising from both emission reduction and compressive strength tests. The geopolymer formulation using the company's metakaolin returned an average strength test of 52MPa, surpassing the strength of many traditional concrete applications.

### **Non-binding MoU with PERMAcast**

In February 2024, Suvo signed a non-binding MoU with Polvine Pty Ltd (PERMAcast) to explore the viability of a long-term relationship to commercialize Suvo's geopolymer IP. PERMAcast is a privately owned company, based in Western Australia. It is a leading supplier of precast and prestressed concrete products for the state's major infrastructure, oil and gas and mining projects. Some of the notable projects that the company has worked on include the Chevron Gorgon Gas Project, Perth (OPTUS) Stadium, Elizabeth Quay, Whitfords and Greenwood Train Stations, the Apache Veranus Island Wharf upgrade and the Forrestfield Airport Link.

The intention of the MOU is to work collaboratively to negotiate in good faith a strategic partnership agreement and exploit Suvo's licensed IP to develop a number of low carbon concrete formulations, specifically for PERMAcast to deploy in selected end use applications. While the agreement is non-binding, it creates a pathway for Suvo and PERMAcast to establish a strategic partnership and to accelerate trials of various formulations and end products utilizing PERMAcast's expertise and infrastructure.

The term of the agreement is 12 months unless terminated earlier, in accordance with standard termination clauses. The key objectives of the MoU would include:

- Sharing of the benefit Suvo's licensed intellectual property
- The ability to jointly leverage the knowledge, skills and intellectual property of each party
- To leverage Suvo's invitation to the Product Stewardship Scheme to help gain acceptance of new products

## **2.5 Exploration Projects**

### **2.5.1 Gabbin Kaolin Project**

The Gabbin Kaolin Project, wholly owned by the company, is situated 215 km northeast of Perth, Western Australia. The project's total indicated and inferred JORC compliant mineral resource amounts to 72.5 Mt of kaolinized granite with an ISO brightness of 80.5.

Encompassing four granted exploration licenses covering 413km<sup>2</sup>, the project is centered around the town and rail siding of Gabbin. This predominantly flat area, utilized for broad-acre cereal cropping, lacks native bushland. A mining access agreement is in place with the landowner and occupier for the current resource area.

At the pre-feasibility study stage, the Gabbin Project underwent preliminary test work, confirming its suitability for diverse product markets, including ceramics, paper coatings, paints and cosmetics.

The project is in the exploration stage and the company considers it part of its 5-year plan, as it requires further studies to be conducted.

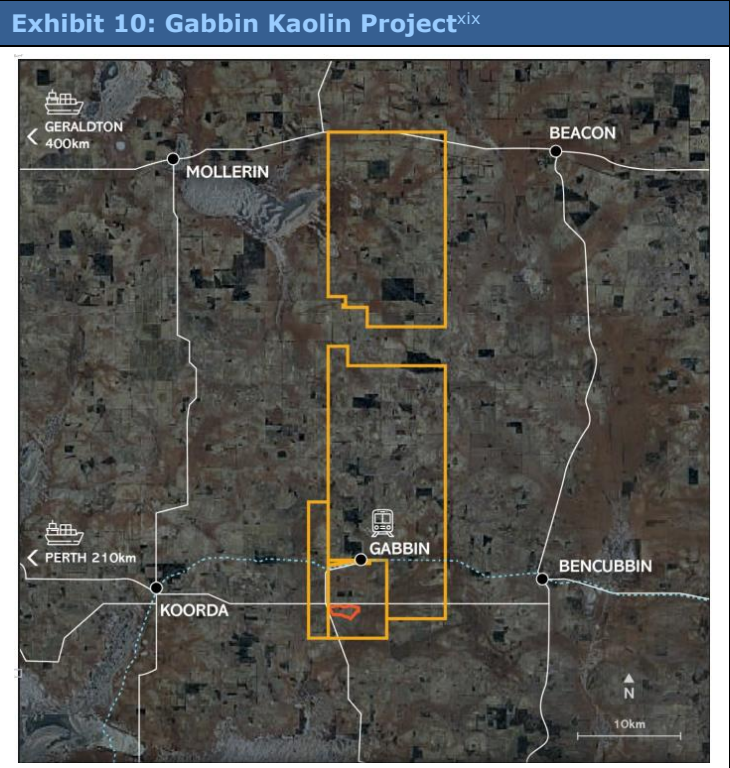
**2.5.2 Eneabba Silica Sands Project<sup>xx</sup>**

The 100%-owned Eneabba Silica Sands Project is situated 300km north of Perth in Western Australia. Spanning 169km<sup>2</sup>, the project comprises four granted exploration licenses. The project is located on the Eneabba Plain where the sandy cover is very flat to gently undulating. Outcrop is rare due to the accumulations of windblown and alluvial sand at surface. Below this is a thin hard silcrete or lateritic claypan which overlies deep white and yellow sands. The project is still at the scoping study level and additional drilling needs to be conducted to expand and enhance the resource base of 216 Mt.

In August 2022, the company executed an agreement for access to 250 hectares of privately owned cleared farmland. Surface samples collected earlier returned up to 99%+ SiO<sub>2</sub> on the private land boundary, where some drilling was conducted for the 216 Mt resource estimate. This privately owned cleared farmland is used for agricultural purposes and has essential infrastructure, including road access, 3-phase power, water facilities and a direct rail line to Geraldton Port. The cleared farmland area eliminates the requirement for onerous environmental clearing permits. With critical infrastructure already in place, there is potential for a substantial reduction in project timelines and costs.

Suvo's Eneabba tenement shares the boundary with Iluka Resources Limited (ASX: ILU). Iluka is in the process of constructing Australia's inaugural fully integrated rare earth refinery in Eneabba. The refinery aims to produce both light and heavy separated rare earth oxides, with the capability to process feedstocks from Iluka's portfolio and various third-party suppliers, encompassing mineral sands and rare earth deposits. The development is financially supported through a risk-sharing agreement between Iluka and the Australian government.

A notable byproduct from Iluka's Eneabba mineral sands operation, the rare-earth monazite, which has been stockpiled for the past 29 years, is now valued at AUD 1.3 bn. Suvo intends to resume work on Eneabba, which has, due to funding constraints, been under care and maintenance for the past 18 months.



**Exhibit 11: Mineral Resource Estimate at Eneabba<sup>xxi</sup>**

Category	Product Tonnes (Mt)	SiO <sub>2</sub> %	Al <sub>2</sub> O <sub>3</sub> %	Fe <sub>2</sub> O <sub>3</sub> %	TiO <sub>2</sub> %
<b>Silica Sand – Glass</b>	132	99.24	0.36	0.05	0.04
<b>Silica Flour</b>	60	96.97	1.12	0.04	0.72
<b>Silica Sand – Coarse</b>	24	98.97	0.51	0.12	0.05

The work done to date on Eneabba suggests the resource is suitable for three distinct markets:

- **Silica glass sand** – In glass production, silica needs to consist of over 98% SiO<sub>2</sub>, possess the appropriate diameter and exhibit low iron content. At its current development stage, Eneabba sand is well-positioned compared to its counterparts concerning silica content and the presence of deleterious elements.

- **Silica flour** – Silica flour, with its fine particle size, finds applications in various specialized industries. It serves as an abrasive additive in soaps, skincare products, toothpaste and paints, and functions as a filler in several pharmaceuticals. Additionally, silica flour is employed in foundry work, as well as in the production of glass, ceramic, porcelain, tile and clay.
- **Coarse silica sand** – Coarse sand is commonly utilized as foundry sand in the creation of sand molds for metal casting.

### 2.5.2.1 Funding<sup>xxii</sup>

Suvo is actively exploring non-dilutive funding options to advance the Eneabba project in 2024. One potential avenue may be project equity, where an investor would acquire a minority equity stake in the project, allowing Suvo to retain majority ownership and operational control. This structure could take the form of a joint venture or earn-in arrangement, the issuance of shares in a subsidiary or private entity holding the project, or the direct sale of an equity interest in the project.

Funding would primarily support drilling activities inside and outside the privately owned cleared farmland. The drilling program would allow Suvo to conduct assays, and define and expand the existing resource base of 216mt. Additionally, the company could earmark funding to secure additional expertise to effectively manage project execution, feasibility studies and any other activities required for the project's progress.

## 2.6 Strategy and Outlook

Suvo has outlined a clear growth strategy, beginning with securing cash flows through its Pittong operations. The legacy business at Pittong has established a loyal customer base with a longstanding history of sourcing kaolin. By implementing a renewed sales and marketing plan, enhancing capacity and introducing product innovation, the company aims to increase sales and margins from its kaolin operations. The utilization of calcined kaolin and metakaolin in various applications is expected to further capitalize on opportunities within the kaolin and cement markets. With a fully depreciated and capital-efficient facility at Pittong, the company anticipates stable and expanding cash flows.

The Trawalla kaolin project, which is significantly larger than Pittong, provides management with potential upside and is the logical next step once the total production output from Pittong is under contract.

Beyond the core cash-generating kaolin business, the company hopes to advance the Eneabba Silica Sands Project and to commercialize the geopolymer concrete intellectual property, which includes the pilot-scale batching plant, the low emission geopolymer concrete formulation, Collicrete, and other carbon-friendly formulations using metakaolin and waste-derived materials. The latter adds a 'blue sky' element to the company, in our view.

## 2.7 Company Milestones

<b>Exhibit 12: Management and Governance</b>	
<b>Year/ Period</b>	<b>Events</b>
<b>2020</b>	<ul style="list-style-type: none"> <li>Acquired 100% of the issued capital in Watershed Enterprise Solutions Pty Ltd and 100% issued capital in Mt Marshall Kaolin, the private entities which hold the Eneabba Silica Sands and Gabbin Kaolin projects.</li> <li>Changed the company name to Suvo Strategic Minerals Limited and commenced trading on ASX with ticker SUV.</li> <li>Raised AUD 5mn in capital through the issue of 250mn shares at AUD 0.02 per share.</li> <li>Acquired the Pittong operations from Imerys S.A. for AUD 2mn, subject to final balance sheet adjustments.</li> </ul>
<b>2021</b>	<ul style="list-style-type: none"> <li>MRE at Gabbin Kaolin project yielded total mineral resources of 72.5 Mt of bright white kaolinised granite.</li> <li>Entered into an offtake agreement C.M.M Toye Industrial Mineral Consultants (CMM) to supply 10K kaolin product per year.</li> <li>Signed a memorandum of understanding with LIXIL AS Sanitary Manufacturing (Tianjin) Co. Ltd. (Lixil) to supply tailor-made refined kaolin products for Lixil group companies.</li> <li>Scoping Study at White Cloud Kaolin Project with Life of Mine at 25 years yielded LOM revenue of AUD 3,600mn and LOM EBITDA of 2,340mn.</li> <li>Appointed Jeremy Whybrow as General Manager of Mining and Geology and Bojan Bogunovic as Chief Financial Officer.</li> <li>Maiden MRE at Trawalla Kaolin project yielded 9.9Mt indicated and 2.8Mt inferred mineral resource of kaolinised granite.</li> <li>MRE at Eneabba Silica Sands Project yielded inferred mineral resource of 216Mt comprising silica glass sand, silica flour and coarse silica sand.</li> </ul>
<b>2022</b>	<ul style="list-style-type: none"> <li>Entered into supply agreement with Norske Skog Boyer to supply at least 25,500 tonnes of high-quality paper grade kaolin, from Pittong, over three years.</li> <li>Adopted Environmental, Social and Governance (ESG) framework, focusing on 100 ESG metrics that are material to the company's industry.</li> <li>Maiden MRE at company's Pittong operations yielded total indicated and inferred mineral resource of 5.69Mt of kaolinized granite.</li> <li>Raised AUD 7.5mn to accelerate the expansion of the Pittong hydrous kaolin plant.</li> <li>Appointed Henk Ludik as Executive Chairman of the company.</li> <li>Entered into major take or pay offtake agreement with ChaoZhou ChengCheng Industrial Co. Ltd. to supply a minimum order quantity of 4,275 tonnes of Pittong hydrous kaolin over a three-year period.</li> <li>Appointed Hanno Van Der Merwe as the company's Chief Operating Officer.</li> <li>Raised AUD 2mn for additional working capital and development of the company's green concrete initiative.</li> </ul>
<b>2023</b>	<ul style="list-style-type: none"> <li>Upgrade project at Pittong completed, on time and within budget, increasing production capacity to 60,000 tpa.</li> <li>Raised AUD 1.6 mn in share placement to execute the company's new marketing strategy.</li> <li>Raised AUD 1.5 mn for working capital requirement via AUD 1 mn debt funding and AUD 0.5 mn in prepayment from customer.</li> <li>Appointed Dr. Agu Kantsler as non-executive director.</li> <li>Appointed Bojan Bogunovic as interim chief executive officer and Aaron Banks transitioned to non-executive chairman.</li> <li>Entered into IP license agreement with Murdoch University (Murdoch) to commercialize geopolymers concrete.</li> <li>Created two lab-scale geopolymers concrete formulations using the company's kaolin. Emissions reduction greater than 50% compared to using Portland cement.</li> <li>Signed a non-binding MoU with PERMAcast to develop its licensed IP, low carbon concrete.</li> </ul>

- |  |   |
|--|---|
|  | <ul style="list-style-type: none"> <li>• Raised AUD 2.5mn for 83.33mn shares through placement and expects to raise AUD 1mn for 33.33mn shares through share purchase plan to ramp up of Pittong production and support R&amp;D activities to advance geopolymer concrete.</li> </ul> |
|--|---|

## 2.8 Financial Overview

### 2Q 2024

During the quarter, Suvo generated revenue of AUD 3 mn from the sale of 5,119 tonnes of hydrous kaolin at a weighted average selling price of about AUD 590 per tonne. The company sold an average of 1,706 tonnes of hydrous kaolin per month, representing a 14% increase compared with around 1,500 tonnes per month in FY 2023. SUV spent AUD 2.83 mn on production costs and AUD 0.32 mn on development activities during the quarter. The company also announced that no material capital projects were planned in the near term.

In 2Q 2024, Suvo secured additional non-dilutive working capital funding of AUD 2.18 mn (before costs) through debt and product prepayments. Debt funding of AUD 1 mn was provided by a private lender, Tember Nominees Pty Ltd (Tember). The company received prepayments of AUD 0.68 mn from ChaoZhou ChengCheng Industrial Co., Ltd (Cheng Cheng and AUD 0.5 mn from Tasmania customer Norske Skog Boyer. At the end of H1 2024, the company had a cash balance of AUD 1.77 mn.

### 2.9 Company Premium

- a) Reinstating the nameplate capacity at Pittong, increasing volumes through blending and bolstering sales team to maximize cash flows from Pittong operations:** The company has successfully restored the Pittong plant to its nameplate capacity through comprehensive overhaul initiatives. This gives the company increased capacity to fulfill purchase orders resulting from rising sales volume. The company has commenced efforts in product development by combining hydrous kaolin with ground calcium carbonate. This blending process is expected to expand the saleable product range beyond the 60,000 tpa production capacity, potentially providing a significant cost advantage. The sales team, with a cumulative experience of over 60 years and a background in technical sales, includes industry veterans who have previously worked with companies such as BASF and Imerys. Their clientele has included prominent names like PPG, Nippon Paints, Kansai Paints, and others in industries like inks, rubber, plastics and paper.
- b) Improving realization through calcined kaolin:** Generated through the calcination process, hydrous kaolin undergoes high-temperature firing, typically around 1,050°C, leading to a denser kaolin structure, enhanced opacity and increased whiteness. Calcined kaolin has various benefits in applications such as rubber, ceramics, plastic industries, paper and paint. It is sold at a price premium of around 20% to 40% compared to Suvo's current weighted average selling price of AUD 600 per tonne. Over the next six months, subject to successful lab-scale trials with IBU-tec, 1kg samples shall be distributed to customers, allowing for testing and product evaluation.
- c) Untapped opportunities at Trawalla, Gabbin and Eneabba:** Suvo has all necessary approvals and licenses for extraction and production at Trawalla. Trawalla offers potential upside for Suvo to exploit once capacity at Pittong is fully utilized. The company also has larger optionality in the form of the Gabbin project, where it already has a mining access agreement with the landowner. The company is also looking for non-dilutive funding opportunities to advance its wholly owned Eneabba silica sands project.
- d) Future opportunities in geopolymer concrete:** SUV's research on kaolin led to the exploration of metakaolin and the development of geopolymer concrete (green concrete). In October 2023, Suvo partnered with Murdoch University, licensing a pilot-scale geopolymer concrete-batching plant and a low-carbon concrete formulation named Collicrete. Suvo now owns the IP of the pilot-scale geopolymer-batching plant. Initial trials by Murdoch University indicate a 50% reduction in GHG emissions compared to ordinary cement. Recently, Suvo was invited to demonstrate Collicrete on sections of the Bunbury Outer Ring Road Project, the largest road infrastructure project in the history of South-Western Australia.

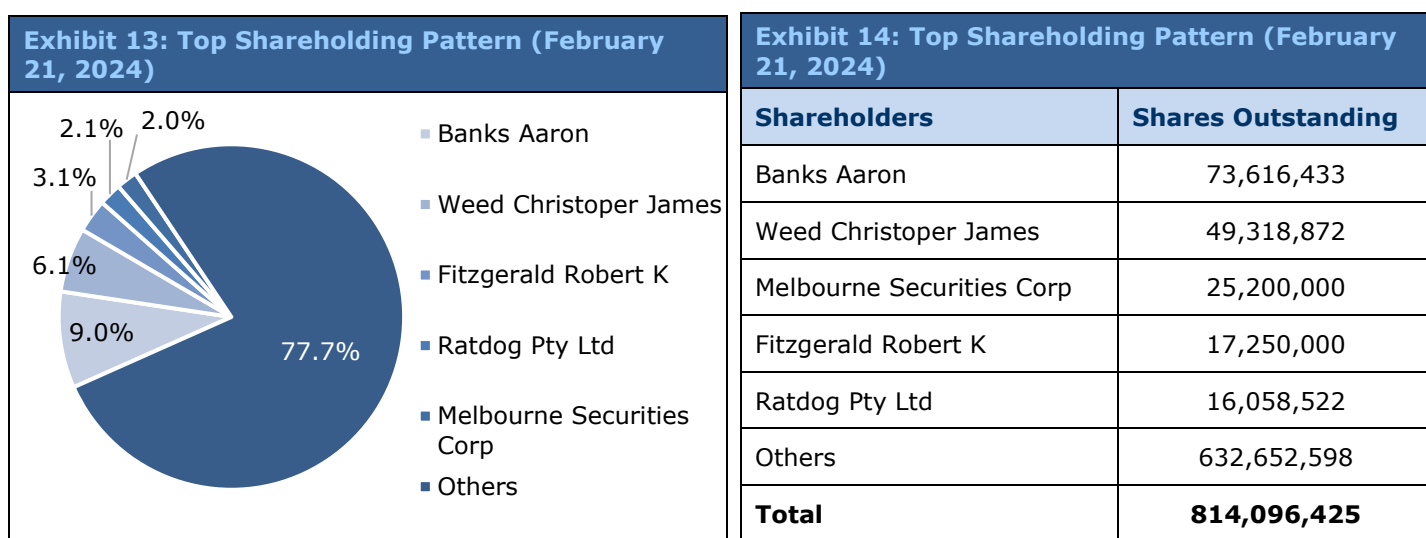
### 2.10 Company Risks

- a) Pricing of kaolin on global markets:** Kaolin, a globally commoditized product with diverse applications in markets such as paints, ceramics, fiberglass, rubber, paper, special chemicals and plastics, is supplied by numerous global providers. These suppliers have the capacity to influence prices and supply/demand dynamics in the global market. Any fluctuations in prices could adversely affect the firm's cash flow and future initiatives.

**b) Funding for future growth opportunities:** Suvo recently raised AUD 2.5 mn through placement for 83.33 mn shares at a price of AUD 0.03 per share. Further, the company aims to raise up to AUD 1 mn through a SPP under the same terms as the placement in March 2024. The funding from the placement and SPP will support the ramp up of production at Pittong to cater to new sales contracts. However, to commence feasibility studies and establishing a processing capacity at Trawalla would require additional funding. Furthermore, exploration in Gabbin and Eneabba would involve significant capital expenditures. While the company plans to leverage its cash flows from Pittong to explore and develop its other assets, it would require substantial external funding for any large capital expansion. The unavailability of such funding could hamper the growth prospects of the company.

## 2.11 Shareholding Pattern<sup>xxiii</sup>

The company had 814,096,425 shares of common stock issued and outstanding on February 21, 2024. The shareholding pattern is as follows:



## 2.12 Listing and Contact Details

Suvo Strategic Minerals Limited is publicly listed on the Australian Securities Exchange and is traded under the symbol 'SUV'.

### Company Contacts

#### Interim CEO

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### 3. News<sup>xxiv</sup>

- **AUD 2.5 mn Placement to support Pittong ramp up and advance geopolymers concrete:** On February 15, 2024, Suvo announced that it has raised AUD 2.5 mn under a placement by issuing 83.33 mn shares. Further, the company aimed to raise up to AUD 1 mn for 33.33 mn shares in March 2024 through a share purchase plan which will have terms similar to the placement. The company will not accept oversubscription under the SPP. The funds from the placement and SPP will support the ramp up of production at Pittong, required to service new sales contracts. The placement will also provide additional working capital that will ensure ongoing value across Suvo's wider portfolio, specifically R&D related to advancing geopolymers concrete.
- **Suvo executes non-binding Memorandum of Understanding (MoU) with Permacast:** On February 5, 2024, Suvo announced that it has signed a non-binding MoU with Polvine Pty Ltd. (PERMAcast), Western Australia's leading supplier of precast and prestressed concrete products for the state's major infrastructure, oil and gas and mining projects. The aim of the MoU is to collaborate in good faith to leverage PERMAcast's expertise and infrastructure and develop end use applications for Suvo's licensed intellectual property, low carbon concrete.
- **Invitation to demonstrate Collicrete on major infrastructure project:** On January 16, 2024, Suvo announced that it had been invited by Sustainability Waste Alliance to complete the demonstrate pour of Collicrete on a section of Bunbury Outer Ring Road Project (BORR), which is under construction by the Southwest Gateway Alliance for Main Roads (MRWA). The company would utilize the mobile geopolymers pilot batching plant already built by Murdoch University and plans to partner with an existing and operational concrete batching plant in order to facilitate the demonstration. If the demonstration is successful, it might present the opportunity to use Collicrete on other government infrastructure projects.
- **Suvo secures AUD 1.5mn working capital funding:** On November 30, 2023, the company announced that it had secured AUD 1.5mn working capital funding through debt and customer prepayment. This funding would cover operational costs to meet the increase in sales orders and product development initiatives. Debt funding was provided by private lender, Tember Nominees Pty Ltd (Tember), on favorable terms with an interest rate of 10% repayable in 12 months. The company had also received a prepayment of AUD 0.5mn from Tasmanian customer Norske Skog Boyer for three months of supply.
- **Product development commenced for Pittong hydrous kaolin:** On November 27, 2023, the company announced that it would commence laboratory scale trials at the Pittong lab by blending hydrous kaolin with ground calcium carbonate (GCC) to increase the production of saleable product beyond the current capacity of 60K tpa. The company will commence trials by blending 10%, 20% and 30% GCC with hydrous kaolin. This product development opportunity should also reduce production costs.
- **Commencement of test work for calcined kaolin:** On November 20, 2023, the company announced that it had hired German thermal processing specialists IBU-tec Advanced Materials AG (IBU-tec) for lab-scale testing for its hydrous kaolin to produce calcined kaolin. Calcined kaolin is produced when hydrous kaolin is fired at high temperatures in a process known as calcination. In lab tests, hydrous kaolin would be subjected to different temperatures and residence times to produce an optimal calcined kaolin reference sample, which would then be distributed to customers for testing and product evaluation.
- **Prepayment received from major kaolin customer:** On November 13, 2023, the company announced that it had received prepayment of USD 0.43mn from a major customer, ChengCheng, for around 900 tonnes of hydrous kaolin under a take or pay offtake agreement signed in November 2022. Additionally, Suvo and ChengCheng had commenced R&D trials of Suvo's hydrous kaolin for suitability in the ceramics market.
- **Second lab trial produces geopolymers concrete with metakaolin and fly-ash:** On November 10, 2023, the company announced the second round of trials, in collaboration with Murdoch, creating a metakaolin and fly-ash geopolymers concrete formulation, which showed a reduction in GHG emissions compared to concrete made using ordinary Portland cement. The trial was focused on creating a geopolymers concrete using metakaolin, from Suvo's Gabbin deposit, and fly-ash, derived from a power station in Collie, Western Australia.
- **Lab trial produces low carbon concrete using metakaolin:** On November 3, 2023, the company announced that laboratory trials in collaboration with Murdoch had produced a low-carbon concrete using Suvo's Metakaolin. The trials comprising five samples showed an average strength test of 52 megapascal (MPa), greater than the strength of many concrete applications in use. Kaolin used in the trial was sourced from the company's Gabbin deposit and was subsequently converted into metakaolin by cement technology specialist FLSmidth.
- **IP agreement signed with Murdoch and board changes announced:** On October 30, 2023, the company announced that it had signed IP license agreement with Murdoch to commercialize Murdoch Technology, IP for a geopolymers concrete batching plant and low-carbon concrete formulation Collicrete. The company also announced that it had appointed CFO Bojan Bogunovic as its interim CEO. Additionally, Aaron Banks had transitioned from

interim non-executive chairman to non-executive chairman and Hugh Thomas had resigned as MD and CEO of the company.

- **Appointment of non-executive director:** On September 5, 2023, the company announced that it had appointed Dr. Agu Kantsler as non-executive director. Dr. Kantsler has over 45 years of experience in the international and Australian upstream oil and gas industry. He has held senior leadership roles at Oil Search Limited, Chamber of Commerce and Industry Western Australia, Australian Chamber of Commerce and Industry and Australian Petroleum Production and Exploration Association (APPEA).
- **Update on Dingo Green HPA technology acquisition:** On August 29, 2023, the company announced that it and Dingo HPA Pty Ltd had mutually agreed not to progress the remaining stages of their earn-in agreement. Suvo thus agreed to sell a 26% share in Dingo at the agreed price of AUD 175K.
- **Agreement to sell silica sand from Pittong operations announced:** On June 22, 2023, the company announced that it had signed a three-year agreement with BQ Nominees Pty Ltd, trading as Barfold Quarry, for the sale of silica sand, a byproduct from company's hydrous kaolin operation at Pittong. Barfold would process and haul 180,000 tonnes of silica sand stockpiles from the Pittong processing facility across the three-year agreement. Barfold also committed to process and purchase silica sand produced from future hydrous kaolin operations. This agreement should generate immediate free cash flow of AUD 1.5mn – AUD 2mn and save an estimated AUD 9 per tonne in relocation and backfilling costs.
- **Update on funding & marketing strategy:** On June 19, 2023, the company announced that it had received AUD 1.6mn in a share placement at AUD 0.023 per share. The new placement would allow management to execute a controlled approach in selling more tonnes to higher-margin industries. In addition, Non-Executive Director Henk Ludik resigned from the board of directors.
- **Appointment of new CEO and board changes:** On March 7, 2023, the company announced that it had appointed Mr. Hugh Thomas as its new CEO, commencing April 1, 2023. Mr. Thomas has over 35 years of experience and has held several executive positions across the natural resources sector. This appointment should allow the company to support the next phase of operations.
- **Upgrade and optimization of Pittong plant completed:** On February 6, 2023, the company announced that it had completed the Pittong optimization project. This upgrade should increase the name plate processing capacity of the Pittong plant to 60,000 tpa under certain operating conditions. Additionally, production of Kaolin at Pittong plant would be increased directly proportional to any increase in sales orders.
- **Suvo raises AUD 2 million in a share placement:** On December 8, 2022, the company announced that it had raised AUD 2 million through a share placement at AUD 0.04 per share. The funds raised should allow the company to advance studies related to the development of green concrete initiatives and premium products such as metakaolin. Moreover, the funding would provide Suvo with additional working capital.
- **Expansion of management team:** On December 1, 2022, SUV expanded its management team with the appointment of Mr. Hanno van Der Merwe as COO. Mr. van der Merwe brings over 25 years of experience in estimating, project management and production management.
- **Take or pay offtake agreement executed with ChengCheng:** On November 14, 2022, SUV entered a take or pay offtake agreement with ChengCheng. The agreement covers a minimum order quantity of 4,275 tonnes of hydrous kaolin over a three-year period and should be worth AUD 3.25 million to AUD 3.5 million.

#### 4. Management and Governance<sup>xxv</sup>

Exhibit 15: Management and Governance		
Name	Position	Experience
Bojan Bogunovic	Interim Chief Executive Officer	<ul style="list-style-type: none"> <li>• Experience in the mining, exploration, construction and agriculture industries in Australia and overseas.</li> <li>• Held senior financial roles at various ASX-listed mining and exploration companies.</li> <li>• Qualified Chartered Accountant with a Bachelor of Commerce from Curtin University.</li> <li>• Previously the company's chief financial officer.</li> </ul>
Hanno Van Der Merwe	Chief Operating Officer	<ul style="list-style-type: none"> <li>• Over 25 years of experience in estimating, project management and production management.</li> <li>• Held senior roles in mining, oil and gas, renewable energy, engineering, construction, maintenance, and telecommunications industries.</li> <li>• Holds qualification in production engineering and a Master of Business Management.</li> </ul>
Aaron Banks	Non-Executive Chairman	<ul style="list-style-type: none"> <li>• Over 20 years of experience in contract negotiations and business development including sales, marketing, and construction management.</li> <li>• Founder and MD of Australian Silica Pty Ltd, which discovered one of the world's largest high-grade silica sand resources.</li> <li>• Extensive background in industrial minerals.</li> </ul>
Dr. Agu Kantsler	Non-Executive Director	<ul style="list-style-type: none"> <li>• Over 45 years of experience in international and Australian upstream oil and gas industries.</li> <li>• Currently non-executive director of Central Petroleum Limited.</li> <li>• Previous experience in leadership roles at Oil Search limited, Chamber of Commerce and Industry Western Australia, Australian Chamber of Commerce and Industry, and APPEA.</li> <li>• Fellow of Australian Academy of Technological Sciences and Engineering and awardee of APPEA's Reg Sprigg gold medal.</li> </ul>
Oliver Barnes	Non-Executive Director	<ul style="list-style-type: none"> <li>• More than 25 years of experience in natural resources and asset development.</li> <li>• Previously held senior roles at an ASX-listed land and water developer and an ASX-listed phosphate technology company.</li> <li>• Holds a Bachelor of Science degree in Agriculture Business Management.</li> </ul>

## 5. Industry Overview

### 5.1 Kaolin Industry<sup>xxvi</sup>

Kaolin, also known as china clay, is a commercially valuable clay primarily composed of the hydrated aluminosilicate clay mineral kaolinite. The economic significance of kaolin is determined by its purity and finely regulated particle size. The particle size plays a crucial role in influencing characteristics such as fluidity, strength, plasticity, color, abrasiveness, and ease of dispersion. Additionally, key attributes include the flat particle shape, gentle and non-abrasive texture, as well as chemical inertness. Processed kaolin typically contains a kaolinite content ranging from 75% to 94%. The properties of kaolin can vary significantly depending on the deposit's location and the diverse minerals associated with kaolin impact its suitability for various applications.

Kaolin's mining consumption market by type is listed below:

- Water-Washed (hydrous kaolin)
- Airfloat
- Calcined
- Delaminated
- Surface-Modified & Unprocessed

The global kaolin market is estimated to have been worth USD 4.23 bn in 2022. It is expected to grow from USD 4.41 bn in 2023 to USD 6.05 bn by 2030, implying a CAGR of 4.6%. Of the USD 4.23 bn overall market in 2022, the Asia-Pacific kaolin market accounted for USD 1.12 bn.<sup>xxvii</sup>

Kaolin is a geopolitical and recession-proof product, and the global kaolin price has not declined in the last 20 years. The Asian market is a focus for Suvo due to the company's logistical advantages compared to producers in the US, South America or the UK.



### 5.1.1 Applications of Kaolin<sup>xxix</sup>

Kaolin is used across three primary market sectors, as summarized below.

#### 1. Paper Industry

Kaolin or china clay functions as both a filler and a paper coating, enhancing the elegance of paper by imparting smoothness, glossiness and brightness. Kaolin also serves as a primary filler, improving printability and opacity within the paper industry. Widely utilized as an additive and coating material, kaolin stands out as a cost-effective alternative to wood paper filler. Over time, the cost of wood paper filler is expected to rise due to increasing demand and decreasing supply. Another competitor to kaolin is calcium carbonate, which, while affordable, yields less satisfactory results. The key vendors of kaolin include:

- Imerys
- Quarzwerke Gruppe
- KaMin
- Thiele Kaolin Company

Around 40% of the total global production of kaolin is employed

as fillers and coatings in the paper industry. Kaolin's dominance in this regard is attributed to its affordability, widespread availability, low abrasiveness, and relatively white color. The high density imparted to paper by kaolin particles reduces coating penetration, preserving the wire cloth in paper machines and extending its lifespan due to kaolin's low wire abrasion properties.

Particle size is a crucial factor in paper fillers and coatings, with larger kaolin particles providing additional strength to paper. The three key aspects that make kaolin ideal for the paper industry are rheology, purity, and particle geometry. In the paper industry, kaolin is used as a filler between paper fibers to enhance printing quality and as a coating to improve the surface properties of the paper.

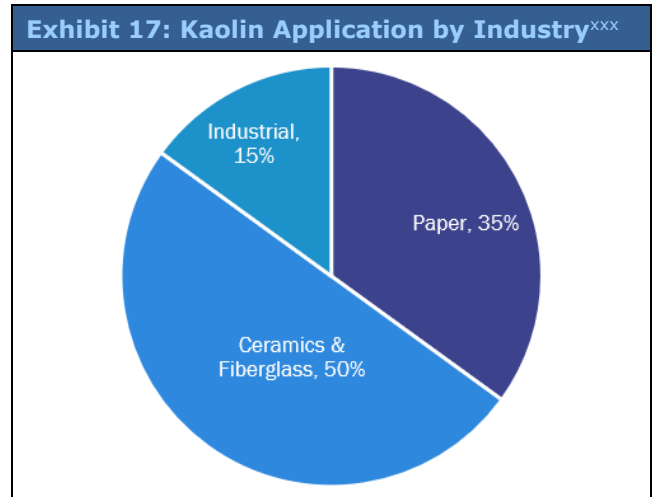
In the face of digital media's prevalence, print media remains resilient, particularly in specialized sectors such as books, niche periodicals, and high-quality brochures. Additionally, the boom in the e-commerce industry is expected to result in higher paper demand for packaging purposes. Kaolin should therefore continue to play a crucial role in improving the print quality and visual appeal of paper.

#### 2. Ceramics Sector

Kaolin is used in various manufacturing sectors, including sanitaryware, tableware, tiles, electrical porcelain and glazes. Its beneficial qualities include fired brightness, strength, and rheological properties, which is particularly beneficial in the production of sanitaryware. Additionally, the high alumina content makes kaolin valuable in refractories.

In 2019, the water-washed segment held the largest market share, attributed to the ability of this method to produce kaolin with reduced impurity levels and enhanced brightness. This process, commonly employed for creating hydrous kaolin, effectively retains water within the clay, typically ranging between 12% and 14%.

The primary process for refining raw kaolin into end products involves water washing. The increasing demand for ceramics in the building and construction sector emerges as a significant driver for water-washed kaolin. This particular type of kaolin plays a pivotal role in the ceramic goods manufacturing process, making the latter a key market driver for water-washed kaolin.



### 3. Specialty Minerals

Kaolin is used in a broad range of industries, including paint, rubber, plastics, adhesives, sealants and pharmaceuticals, where it mainly serves as a filler in specialty applications. In the realms of paint and rubber, kaolin functions as a cost-effective substitute. In paint formulations, it reduces dependence on the more expensive titanium dioxide pigment, while in the rubber industry, it lessens the need for the pricier carbon black.

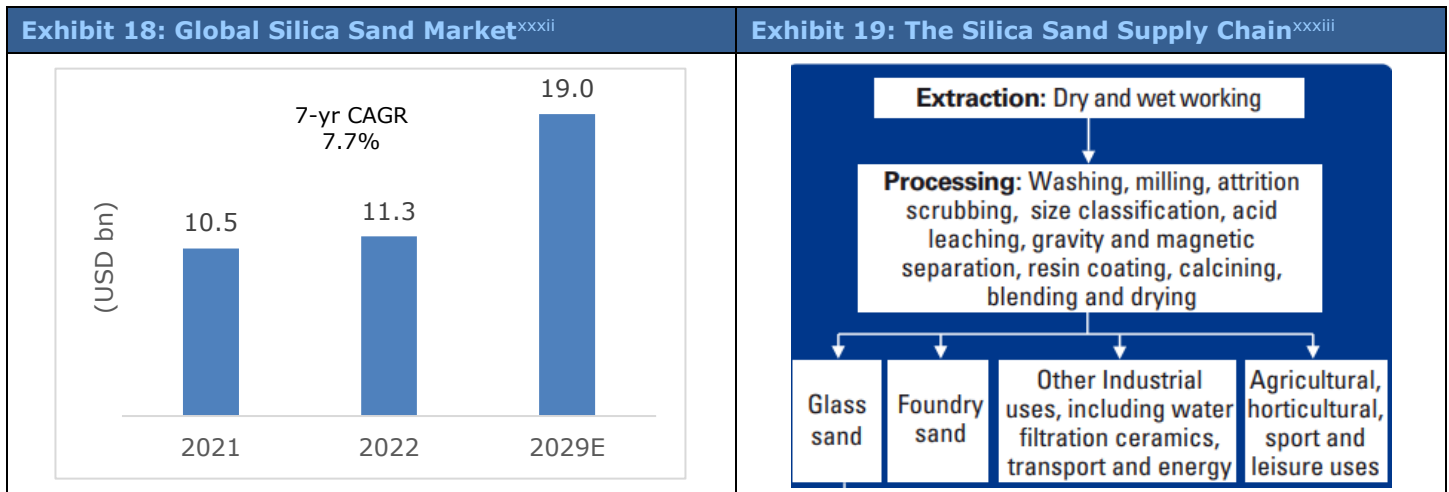
With a longstanding record of safe use, kaolin is a preferred ingredient in pharmaceutical formulations due to its high purity and low toxicity. In medicinal compositions, it serves as an excipient, playing diverse roles such as a binder, diluent, filler, and disintegrant in tablets, capsule and powders. This aids in the manufacturing processes and enhances the physical qualities of the final pharmaceutical product.

Kaolin’s moisture and toxin absorption capabilities make it valuable in anti-diarrheal medications. By binding to harmful substances in the gastrointestinal tract, it contributes to alleviating symptoms associated with diarrhea. Additionally, kaolin is used in the formulation of topical creams, ointments and powders for skincare purposes. Its mild and soothing characteristics make it especially suitable for individuals with sensitive skin, extending its use in various dermatological products.

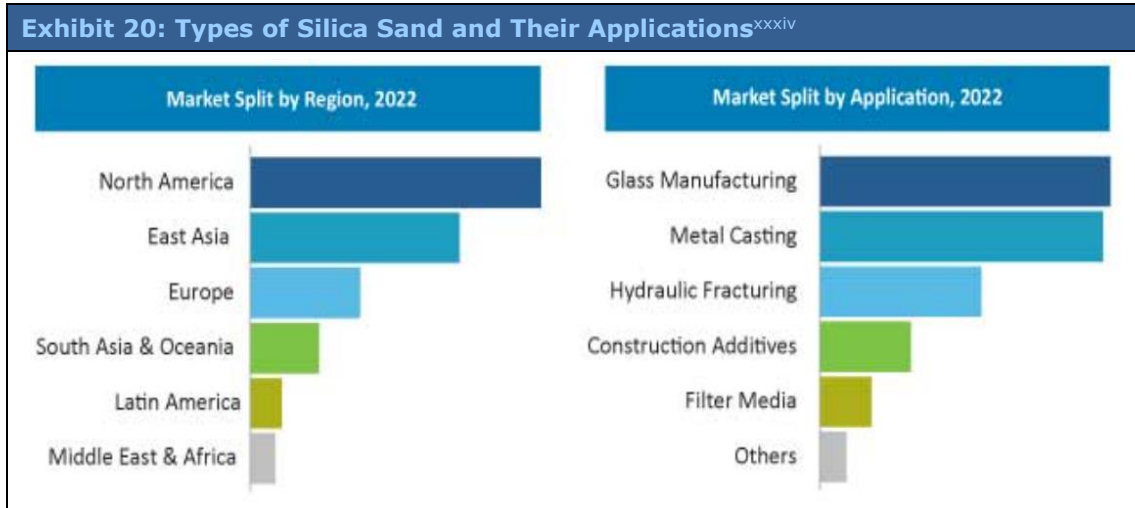
#### 5.2 Silica Sand<sup>xxxii</sup>

Silica sand, characterized by a high concentration of mineral quartz, is a granular material composed of finely divided mineral and rock particles. It stands as one of the most prevalent sand varieties globally, ranking as the second most consumed resource worldwide, following water. Serving as a fundamental ingredient in glass and concrete production, silica sand plays a pivotal role in shaping modern cities, finding extensive use across both dry and wet industries.

Silica, also known as silicon dioxide (SiO<sub>2</sub>), comprises silicon and oxygen – the Earth’s two most abundant elements – and ranks as the planet’s third most common rock-forming mineral. This finely crushed variant of quartz boasts elevated silicon dioxide content, with high-quality silica sand containing at least 95% SiO<sub>2</sub> and less than 0.1% iron oxide. Sand failing to meet these criteria is classified as regular sand. Desirable properties of SiO<sub>2</sub> include toughness, a high melting point and inert chemical characteristics, with its abundance in mines accompanied by notable hardness. The quality of quartz sand crystals depends on factors such as the silica ratio, hardness, and chemical structure of the mines. High-grade silica sand is typically found beneath thin layers of soil and overburden in unconsolidated deposits. The silica sand supply chain is outlined below.



The image below presents a market share analysis of industrial silica sand, delineated by application and region. Within the application segment, the subcategory of glass manufacturing emerges as the predominant force, commanding a substantial 32.3% market share in 2022.



In 2021, Slovenia held the top position among major exporters of silica sand, followed by the US, with Belgium and Germany as the next leading exporters. The Philippines recorded an impressive increase in exports from 2017 to 2021, while Japan saw a notable 79% decrease during the same period. Among importers in 2021, the United Arab Emirates claimed the largest share, with Singapore and Belgium as the next prominent importers. Brunei exhibited a significant 282% increase in imports from 2017 to 2021, while Japan experienced a 75% decrease over the same time.

Singapore and Belgium as the next prominent importers. Brunei exhibited a significant 282% increase in imports from 2017 to 2021, while Japan experienced a 75% decrease over the same time.

The primary consumers of silica sand are the US, China and Japan. The US, primarily propelled by the oil and gas industry's demands for activities like fracking and glass production, stands as the largest consumer. In the Asia-Pacific region, China and India lead in consumption due to their expanding glass manufacturing and construction sectors. Despite being a major consumer, Japan underwent a 75% decrease in silica sand consumption from 2017 to 2021.

### 5.2.1 Applications of Silica Sand<sup>xxxv</sup>

Silica sand is a versatile material with a wide range of applications due to its unique properties, including high purity, hardness and resistance to chemical and physical weathering. Some of the major uses of silica sand include:

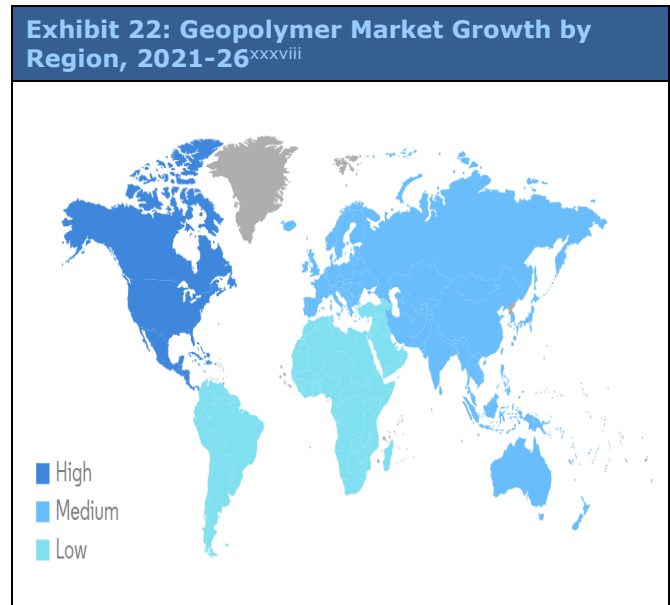
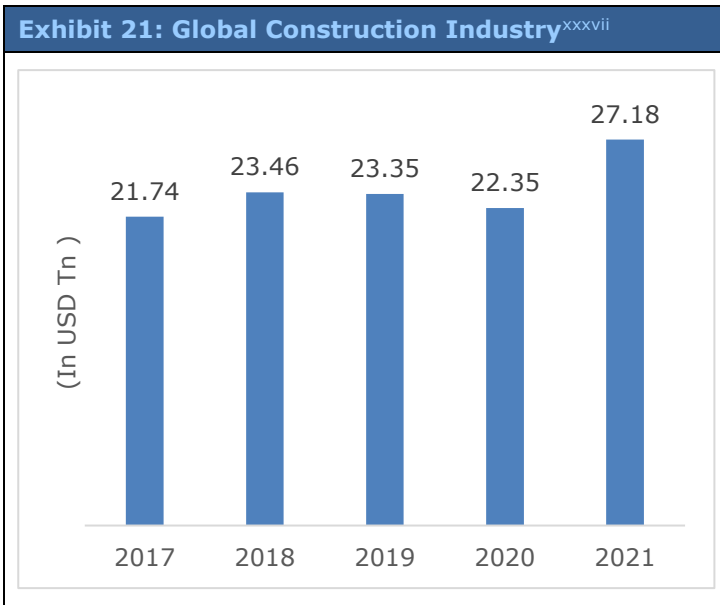
- **Glass Manufacturing:** Silica constitutes the key component in almost all varieties of glass. The main glass products include containers, flat glass, lighting glass, tableware, personal mobile devices, decorative glass, fiberglass, optical glass and vacuum flasks.
- **Foundry Casting:** Silica has a high melting point (1610°C) and is used extensively in the ferrous and non-ferrous foundry industries. The high melting point enables castings to be produced by pouring molten metal into molds made from silica sand. This is critical in producing aerospace, military and automotive components.
- **Construction Industry:** The construction sector heavily relies on silica with numerous specialized industrial applications demanding precise tolerances for various building products. These include silica and aerate concrete blocks, floor and roof tiles, flooring and rendering compounds, roofing felt, and cement and resin injection systems. Silica serves as a crucial raw material in construction and is used for purposes like filtration sand, molding sand, and glass production. It is also used in flooring compounds, mortar, cement, stucco, roofing shingles and asphalt mixtures.
- **Water Filtration:** Silica sand is widely used in water filtration due to its uniform shape and size, making it an effective filtration bed that consistently removes contaminants from water.
- **Abrasives:** Fine-grain silica sand is used as an abrasive material in sandblasting and abrasive cleaning of surfaces.

- **Oil & Gas:** Silica sand, termed “frac sand” in the oil industry, is crucial for hydraulic fracturing, enhancing oil flow rates in deep wells by maximizing formation cuttings and maintaining fractures. In fracking, it aids in releasing natural gas, oil and liquids from shale reservoirs, sustaining the fractures created during the process.
- **Paints and Coatings:** It is used as a filler to enhance texture and consistency in paints and coatings and can improve their durability and scratch resistance.
- **Horticulture and Agriculture:** Silica sand can be used in soil mixtures and as a soil amendment to improve drainage and aeration in horticulture and agriculture.
- **Sports and Recreation:** Silica sand is used for equestrian surfaces, in artificial turf, golf course root zones, bunkers and top dressings, football, rugby, cricket and other sports pitch construction and surface dressing, and as well as children’s play sands.
- **Others:** Silica sand has a variety of safety applications in transport, including reflective surface applications such as white line markings, and of increasing importance, rail braking medium, where sand is used to increase the grip under braking. All new trains require sand braking systems, with current rolling stock also being retrofitted. Silica is used in chemical and metal manufacturing, serves as fillers in various products, plays a role in plastic production, and contributes to the manufacturing of refractories and biomass energy generation.

**5.3 Geopolymer Cement<sup>xxxvi</sup>**

The value of global geopolymer market is estimated at USD 14.8 bn in 2024, and is projected to reach USD 53.4 bn by 2029, with a CAGR of 29.3% in the forecasted period. The geopolymers market is characterized by high fragmentation, with major players including Wagners, Geopolymer Solutions LLC, SLB, and CEMEX S.A.B. de C.V.

Geopolymers play a crucial role in building construction, addressing environmental concerns stemming from increased greenhouse gas emissions due to rapid global construction activity and population growth. The construction sector has witnessed substantial growth, reaching a value of USD 22.36 tn in 2020, and showing continued expansion to USD 27.18 tn in 2021, as reported by the World Bank. The emphasis on green technology in construction has been ongoing for years, reflecting a global shift towards assessing the environmental impact of building materials alongside their technical properties, driven by increasing environmental awareness.



Various geopolymer materials, including geopolymer concrete, cement, binders, bricks, panels and others, are used in building construction due to their versatile properties, contributing to reduced greenhouse gas emissions and energy



consumption. In Australia, the Global Change Institute (GCI) at the University of Queensland, designed by Hassell in collaboration with Bligh Tanner and Wagners, stands as the world's first building using geopolymer concrete for structural purposes.

As the use of geopolymers in construction grows, public and governmental awareness of the benefits of geopolymer concrete is increasing. Toowoomba Wellcamp Airport serves as an example, where about 23,000 m<sup>3</sup> of geopolymer concrete was used. This trend reflects the overall rising adoption of geopolymers in building construction.

In the Asia-Pacific region, China holds a dominant global market share due to increasing construction activity and demand for construction materials. To stimulate economic growth after pandemic-related setbacks, China's Ministry of Finance and National Development plans to invest CNY 500 bn (USD 71.9 bn) in establishing a state infrastructure fund, with a focus on promoting infrastructure spending. The country is also working on expanding 30 airports to enhance connectivity, notably Chengdu Tianfu International Airport, which is the fourth-largest international hub in China.

## 6. Valuation

The fair market value for Suvo's shares stood between AUD 95.1 mn and AUD 170.5 mn on February 21, 2024. The fair market value for one of the company's publicly traded shares stood between AUD 0.10 and AUD 0.18 on February 21, 2024. The valuation method employed is sum of the parts approach. Suvo's share price stood at AUD 0.036 on February 21, 2024, with a market capitalization of AUD 29.3 mn, which translates to an upside of ~3x-5x based on our valuation.

### 6.1 DCF Method – Pittong Operations

Valuation	
Risk free rate (Rf)	4.2%
Beta	0.4
Market return	8.3%
Cost of equity	8.6%
Cost of debt (after tax)	3.5%
WACC (Discount Rate)	7.1%

June Year Ending – (AUD 000's)	2024E	2025E	2026E
<b>FCFF (Low)</b>			
Free cash flow to firm	(2,125)	1,547	5,180
Discount factor	0.98	0.91	0.85
<b>Present value of FCF</b>	(2,074)	1,410	4,409
<b>FCFF (High)</b>			
Free cash flow to firm	(1,072)	3,469	9,390
Discount factor	0.98	0.91	0.85
<b>Present Value of FCF</b>	(1,046)	3,162	7,993

### Sensitivity Analysis

	WACC					
		6.2%	6.5%	6.7%	7.0%	7.2%
Terminal Growth	1.0%	0.159	0.151	0.144	0.137	0.130
	1.5%	0.176	0.166	0.157	0.149	0.141
	2.0%	0.196	0.184	0.173	0.163	0.154
	2.5%	0.221	0.206	0.193	0.181	0.170
	3.0%	0.255	0.235	0.218	0.203	0.189

### 6.2 Relative Valuation

#### Trawalla - Median EV/Total Kaolin Mineral Resource Multiple

Summary	Units	High Case	Low Case
Median EV/Kaolin Mineral Resource Multiple		0.52	0.52
Arrowhead's Premium/(Discount)	%	0.0%	0.0%
Trawalla Kaolin Mineral Resource	Mt	12.7	12.7
Trawalla EV	AUD mn	<b>6.6</b>	<b>4.7</b>
Trawalla EV/share	AUD	0.007	0.005

**Gabbin - Median EV/Total Kaolin Mineral Resource Multiple**

Summary	Units	High Case	Low Case
Median EV/Kaolin Mineral Resource Multiple		0.52	0.52
Arrowhead's Premium/(Discount)	%	-80.0%	0.0%
Gabbin Kaolin Mineral Resource	Mt	72.5	72.5
Gabbin EV	AUD mn	<b>7.6</b>	<b>6.1</b>
Gabbin EV/share	AUD	0.008	0.007

**Eneabba - Median EV/Total Silica Sands Mineral Resource Multiple**

Summary	Units	High Case	Low Case
Median EV/Silica Sands Mineral Resource Multiple		0.37	0.37
Arrowhead's Premium/(Discount)	%	-90.0%	0.0%
Eneabba Mineral Resource	Mt	216.0	216.0
Eneabba EV	AUD mn	<b>8.0</b>	<b>3.6</b>
Eneabba EV/share	AUD	0.009	0.004

**6.3 Sum of Parts**

Consolidated Valuation	Units	Low Case	High Case
<b>Equity Value</b>			
Pittong Operations	AUD '000	80,664	148,334
Trawalla	AUD '000	4,717	6,622
Gabbin	AUD '000	6,111	7,561
Eneabba	AUD '000	3,638	7,958
Total Equity Value	AUD '000	95,130	170,476
Shares o/s ('000)	'000	930,763	930,763
<b>Intrinsic Value per share</b>	AUD/share	<b>0.10</b>	<b>0.18</b>
Current market Price	AUD/share	0.036	0.036
Upside	%	184%	409%

### **Important information on Arrowhead methodology**

The principles of the valuation methodology employed by Arrowhead BID are variable to a certain extent depending on the subsectors in which the research is conducted, but all Arrowhead valuation research possesses an underlying set of common principles and a generally common quantitative process.

With Arrowhead Commercial and Technical Due Diligence, Arrowhead extensively researches the fundamentals, assets and liabilities of a Company, and builds solid estimates for revenue and expenditure over a coherently determined forecast period.

Elements of past performance, such as price/earnings ratios, indicated as applicable, are present mainly for reference purposes. Still, elements of real-world past performance enter the valuation through their impact on the commercial and technical due diligence.

Elements of comparison, such as multiple analyses may be to some limited extent integrated in the valuation on a project-by-project or asset-by-asset basis. In the case of this Suvo Strategic Minerals Limited report, there are no multiple analyses integrated in the valuation.

### **Arrowhead BID fair market value bracket**

The Arrowhead Fair Market Value is given as a bracket. This is based on quantitative key variable analysis, such as key price analysis for revenue and cost drivers or analysis and discounts on revenue estimates for projects, especially relevant to those projects estimated to provide revenue near the end of the chosen forecast period. Low and high estimates for key variables are produced as a tool for valuation. The high-bracket NPV valuation is derived from the high-bracket key variables, while the low-bracket NPV valuation is based on the low-bracket key variables.

In principle, an investor who is comfortable with the high-brackets of our key variable analysis will align with the high-bracket in the Arrowhead Fair Value Bracket, and likewise in terms of low estimates. The investor will also take into account the Company intangibles – as presented in the first few pages of this document in the analysis of strengths and weaknesses and other essential Company information. These intangibles serve as supplementary decision factors for adding or subtracting a premium in the investor's own analysis. The bracket should be understood as a tool provided by Arrowhead BID for the reader of this report and the reader should not solely rely on this information to make his decision on any particular security. The reader must also understand that on one hand, global capital markets contain inefficiencies, especially in terms of information, and that on the other hand, corporations and their commercial and technical positions evolve rapidly: this present edition of the Arrowhead valuation is for a short to medium-term alignment analysis (one to twelve months). The reader should refer to important disclosures on page 28 of this report.

## 7. Appendix

### 7.1 Suvo's Financial Summary

Exhibit 23: Financial Summary	Low Bracket Estimates (AUD '000s)			
Year ending June	2023A	2024E	2025E	2026E
Revenue	11,259.1	13,860.0	24,130.0	32,000.0
Gross Profit	(2.5)	3,296.8	8,933.9	12,715.3
EBITDA		31.4	4,398.0	7,688.5
Operating Profit		(406.7)	3,974.3	7,257.8
Net Income		(406.7)	3,974.3	7,257.8
EPS	(1.14)	(0.04)	0.43	0.78
<b>Growth rates (%)</b>				
Revenue	(19.3%)	23.1%	74.1%	32.6%
Gross Profit	NM	NM	171.0%	42.3%
EBITDA	NM	NM	NM	74.8%
Operating Profit	NM	NM	NM	82.6%
Net Income	NM	NM	NM	82.6%
EPS	NM	NM	NM	82.6%
<b>Margins (%)</b>				
Gross Margin	NM	23.79%	37.02%	39.74%
EBITDA Margin	(66.9%)	0.2%	18.2%	24.0%
Operating Profit Margin	(72.2%)	(2.9%)	16.5%	22.7%
Net Profit Margin	(72.0%)	(2.9%)	16.5%	22.7%
<b>Ratios</b>				
ROA	(33.3%)	(1.7%)	14.6%	22.0%
ROE	(47.4%)	(2.4%)	19.3%	27.7%
Debt/equity	0.11x	0.13x	0.10x	0.06x

Exhibit 24: Financial Summary	High Bracket Estimates (AUD '000s)			
Year ending June	2023A	2024E	2025E	2026E
Revenue	11,259.1	15,252.1	29,047.8	39,330.3
Gross Profit	(2.5)	4,712.4	11,504.2	17,614.0
EBITDA		1,254.7	6,950.1	12,202.8
Operating Profit		816.6	6,526.3	11,772.1
Net Income		816.6	6,526.3	11,772.1
EPS	(1.14)	0.09	0.70	1.26
<b>Growth rates (%)</b>				
Revenue	(19.3%)	35.5%	90.5%	35.4%
Gross Profit	NM	NM	144.1%	53.1%
EBITDA	NM	NM	NM	75.6%
Operating Profit	NM	NM	NM	80.4%
Net Income	NM	NM	NM	80.4%
EPS	NM	NM	NM	80.4%
<b>Margins (%)</b>				
Gross Margin	NM	30.90%	39.60%	44.78%
EBITDA Margin	(66.9%)	8.2%	23.9%	31.0%
Operating Profit Margin	(72.2%)	5.4%	22.5%	29.9%
Net Profit Margin	(72.0%)	5.4%	22.5%	29.9%

Ratios				
ROA	(33.3%)	3.3%	21.8%	30.0%
ROE	(47.4%)	4.6%	28.3%	36.6%
Debt/equity	0.11x	0.12x	0.08x	0.05x

## 7.2 Suvo Minerals Strategic Minerals Ltd. Balance Sheet Forecast

### Exhibit 25: Consolidated Balance Sheet

*Low Bracket estimates  
(AUD '000s)*

Year Ending – June	2023A	2024E	2025E	2026E
Total current assets	7,528.5	9,600.6	12,920.1	19,483.4
Total non-current assets	14,888.3	15,650.2	16,426.4	17,195.7
<b>TOTAL ASSETS</b>	22,416.8	25,250.8	29,346.5	36,679.1
Total current liabilities	3,737.6	2,878.3	2,949.7	2,974.5
Total non-current liabilities	3,209.4	3,809.4	3,859.4	3,909.4
<b>TOTAL LIABILITIES</b>	6,947.0	6,687.7	6,809.1	6,883.9
Total shareholders' equity	15,469.8	18,563.1	22,537.4	29,795.2
<b>TOTAL LIABILITIES &amp; EQUITY</b>	22,416.8	25,250.8	29,346.5	36,679.1

### Exhibit 26: Consolidated Balance Sheet

*High Bracket estimates  
(AUD '000s)*

Year Ending – June	2023A	2024E	2025E	2026E
Total current assets	7,528.5	10,822.0	16,888.4	27,973.0
Total non-current assets	14,888.3	15,650.2	16,426.4	17,195.7
<b>TOTAL ASSETS</b>	22,416.8	26,472.2	33,314.8	45,168.7
Total current liabilities	3,737.6	2,876.3	3,142.7	3,174.4
Total non-current liabilities	3,209.4	3,809.4	3,859.4	3,909.4
<b>TOTAL LIABILITIES</b>	6,947.0	6,685.7	7,002.1	7,083.8
Total shareholders' equity	15,469.85	19,786.4	26,312.7	38,084.9
<b>TOTAL LIABILITIES &amp; EQUITY</b>	22,416.8	26,472.2	33,314.8	45,168.7

## 8. Analyst Certifications

I, Sumit Wadhwa, certify that all the views expressed in this research report accurately reflect my personal views about the subject security and the subject Company, based on the collection and analysis of public information and public Company disclosures.

I, Ayushi Saraswat, certify that all the views expressed in this research report accurately reflect my personal views about the subject security and the subject Company, based on the collection and analysis of public information and public Company disclosures.

### Important disclosures

Arrowhead Business and Investment Decisions, LLC has received fees in 2024 and will receive further fees in 2024 from Suvo Strategic Minerals Limited for researching and drafting this report and for a series of other services to Suvo Strategic Minerals Limited, including distribution of this report and networking services. Neither Arrowhead BID nor any of its principals or employees own any long or short positions in Suvo Strategic Minerals Limited. Arrowhead BID's principals intend to seek a mandate for investment banking services from Suvo Strategic Minerals Limited in 2024 or beyond and intend to receive compensation for investment banking activities from Suvo Strategic Minerals Limited in 2024 or beyond.

Aside from certain reports published on a periodic basis, the large majority of reports are published by Arrowhead BID at irregular intervals as appropriate in the analyst's judgment.

Any opinions expressed in this report are statements of Arrowhead BID's judgment to this date and are subject to change without notice.

This report was prepared for general circulation and does not provide investment recommendations specific to individual investors. As such, any of the financial or other money-management instruments linked to the company and company valuation described in this report, hereafter referred to as "the securities," may not be suitable for all investors.

Investors must make their own investment decisions based upon their specific investment objectives and financial situation utilizing their own financial advisors as they deem necessary.

Investors are advised to gather and consult multiple sources of information while preparing their investment decisions. Recipients of this report are strongly advised to read the Information on Arrowhead Methodology section of this report to understand if and how the Arrowhead Due Diligence and Arrowhead Fair Value Bracket integrates alongside the rest of their stream of information and within their decision-making process.

Past performance of securities described directly or indirectly in this report should not be taken as an indication or guarantee of future results. The price, value of, and income from any of the financial securities described in this report may rise as well as fall and may be affected by simple and complex changes in economic, financial and political factors.

Should a security described in this report be denominated in a currency other than the investor's home currency, a change in exchange rates may adversely affect the price of, value of, or income derived from the security.

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## 8. Notes and References

- <sup>i</sup> Source: Bloomberg as on February 21, 2024
- <sup>ii</sup> Source: Bloomberg as on February 21, 2024
- <sup>iii</sup> Source: [Company website, Prospectus – 5 Mar 2020](#)
- <sup>iv</sup> Source: [ASX Announcement – CEO Presentation at Annual General Meeting on 17 Nov 2023](#)
- <sup>v</sup> Source: [Company website, ASX Announcement – Pitong Plant Upgrade on 6 Feb 2023](#)
- <sup>vi</sup> Source: [ASX Announcement – CEO Presentation at Annual General Meeting on 17 Nov 2023](#)
- <sup>vii</sup> Source: Arrowhead Analysis
- <sup>viii</sup> Source: [Company website, ASX Announcement – Quarterly activities report Sept 23](#)
- <sup>ix</sup> Source: Company Presentation
- <sup>x</sup> Source: [ASX Announcement – Quarterly activities report Sept 23](#)
- <sup>xi</sup> Source: [ASX Announcement – Quarterly activities report Sept 23](#)
- <sup>xii</sup> Source: [Company website, ASX Announcement – Commencing Test Work on Calcined Kaolin on 20 Nov 2023](#)
- <sup>xiii</sup> Source: Arrowhead Analysis
- <sup>xiv</sup> Source: [Company website, ASX Announcement – Product Development initiatives with Pittong Hydrous Kaolin on 27 Nov 2023](#)
- <sup>xv</sup> Source: [ASX Announcement – Product Development initiatives with Pittong Hydrous Kaolin on 27 Nov 2023](#)
- <sup>xvi</sup> Source: [Company website, ASX Announcement – Trawalla Maiden Mineral Resource Estimate on 22 Sept 2021, ASX Announcement – Non Dilutive Funding Secured on 30 Nov 2023](#)
- <sup>xvii</sup> Source: [ASX Announcement – Trawalla Maiden Mineral Resource Estimate on 22 Sept 2021](#)
- <sup>xviii</sup> Source: [ASX Announcement – CEO Presentation at Annual General Meeting on 17 Nov 2023, Cutting Cement Industry CO2 Emissions through Metakaolin Use in Construction, ASX Announcement – Exclusive IP license agreement with Murdoch University on 30 October 2023](#)
- <sup>xix</sup> Source: [ASX Announcement – Scoping Study of White Cloud Kaolin Project on 27 May 2021](#)
- <sup>xx</sup> Source: [Company website, ASX Announcement – Land Access Agreement for Eneabba Silica Sand Project on 31 Aug 2022](#)
- <sup>xxi</sup> Source: [ASX Announcement – Maiden Nova Mineral Resource Estimate on 12 Oct 2021](#)
- <sup>xxii</sup> Source: Management Discussions
- <sup>xxiii</sup> Source: Bloomberg as on February 21, 2024
- <sup>xxiv</sup> Source: [Historical announcements \(asx.com.au\)](#)
- <sup>xxv</sup> Source: [Company website](#)
- <sup>xxvi</sup> Source: [The Kaolin and Ball Clay Association, Fortune Business Insights](#)
- <sup>xxvii</sup> Source: [Fortune Business Insights](#)
- <sup>xxviii</sup> Source: [Markets & Markets Research](#)
- <sup>xxix</sup> Source: [The Kaolin and Ball Clay Association, Ashapura Chianclay Co LLP, Markets & Markets Research, Competitive Landscape for Kaolin Paper Market by International Business Insight, Kaolin Mining Consumption Market Size and Sustainable Fashion: 2023-2030 by Trend Track Analytics](#)
- <sup>xxx</sup> Source: [ASX Announcement – CEO Presentation at Annual General Meeting on 17 Nov 2023](#)
- <sup>xxxi</sup> Source: [Fortune Business Insights – Silica Sand Market, ReporterLinker – Silica Sand Market Outlook 2022 - 26, Mordor Intelligence – North America Silica Sand Market, Mordor Intelligence – Silica Sand Market](#)
- <sup>xxxii</sup> Source: [Fortune Business Insights – Silica Sand Market](#)
- <sup>xxxiii</sup> Source: [British Geological Survey – Mineral Planning Factsheet Business Insights – Silica Sand](#)
- <sup>xxxiv</sup> Source: [Fact.MR – Industrial Silica Sand Market](#)
- <sup>xxxv</sup> Source: [The Mineral Products Association \(MPA\) – Silica Sand](#)
- <sup>xxxvi</sup> Source: [Mordor Intelligence – Geopolymer Market Size & Share Analysis](#)
- <sup>xxxvii</sup> Source: [Mordor Intelligence – Geopolymer Market Size & Share Analysis](#)
- <sup>xxxviii</sup> Source: [Mordor Intelligence – Geopolymer Market Size & Share Analysis](#)