



18 July 2023

## VRX Silica successfully secures \$2m grant to produce high grade silica sand

### Highlights:

- ✓ **Investment Attraction Fund application approved for funding grant by State Government**
- ✓ **Funding for testwork and construction of pilot plant for High Purity Quartz (HPQ) flour project**
- ✓ **HPQ products achieve prices up to US\$9,500/tonne**

VRX Silica Limited (ASX: VRX) (**VRX** or **Company**) is pleased to announce confirmation from the Western Australian State Government that the Company's grant application for \$2 million in matched funding under the Investment Attraction Fund (**IAF**) has been approved with a Financial Assistance Agreement (FAA) for the grant executed today.

A media statement from the State Government announcing the grant is available to view on the State Government's [Invest and Trade WA website](#).

The IAF is part of the State Government's Diversify WA initiative, a collaboration between government, industry and the community supporting the WA Government's focus on creating secure, quality jobs, growing and diversifying the economy and attracting new investment.

The IAF is administered by the Department of Jobs, Tourism, Science and Innovation (**JTSI**).

The grant under the IAF is being awarded on a matched funding, dollar for dollar basis, whereby the IAF will provide a financial contribution to VRX up to \$2m.

The project proposed by VRX will investigate the potential to develop a high purity quartz (or HPQ) flour manufacturing process and pilot plant in Western Australia, which if successful will lead to the development of a larger commercial plant for large scale processing.

VRX Managing Director Bruce Maluish said: *"This project is a consequence of the metallurgical testwork on silica sand that VRX has conducted over the last few years.*

*"The Company has developed a thorough understanding of the characteristics of each of its deposits and how those projects can produce silica products that are most in demand.*

*"This is another opportunity to supply products into a niche market and add further value to our silica sand projects."*

### ASX: VRX

#### Capital Structure

Shares on Issue:  
560.4 million

Unlisted Options:  
41.3 million

#### Corporate Directory

##### Paul Boyatzis

Non-Executive  
Chairman

##### Bruce Maluish

Managing Director

##### Peter Pawlowitsch

Non-Executive Director

##### David Welch

Non-Executive Director

##### Ian Hobson

Company Secretary

#### Silica Sand Projects

Arrowsmith Silica Sand  
Projects, 270km north  
of Perth, WA.

Muchea Silica Sand  
Project, 50km north of  
Perth, WA.

Boyatup Silica Sand  
Project, 100km east of  
Esperance, WA.

*The Company is actively  
assessing other silica  
sand projects in  
Australia.*

## **Background**

In July 2019 the Western Australian State Government released Diversify WA, to provide an economic development framework for the State. It sets out initiatives, actions and strategies that will contribute to achieving its vision for “a strong and diversified economy delivering secure, quality jobs through increased investment across a broad range of industries”. It also identifies priority sectors for strategic development that match Western Australia’s unique strengths with global trends to achieve growth across the economy.

The IAF facilitates Diversify WA through provision of grants and other incentives.

In May 2022 VRX made a preliminary application under Stage 1 of the scheme (Expressions of Interest) and at the end of August 2022 the Company was shortlisted and invited to progress to Stage 2. A detailed application was lodged in October 2022. On 18 July 2023 the State Government publicly announced that the Company’s application for funding has been approved and executed the FAA.

## **HPQ Production**

The world’s purest supply of quartz comes from the Spruce Pine pegmatite deposit in North Carolina. Two companies, Sibelco and The Quartz Corporation, mine the deposit and process the high purity quartz for use in the production of solar panels, semiconductors, silicon metal and high-tech glass. Combined, they account for around 80% of world production with Sibelco producing around 70% with around 15% coming from Chinese and Russian producers.

## **Project Description**

VRX intends to develop a High Purity Quartz flour manufacturing process to meet a standard of 99.999% SiO<sub>2</sub> (5N) purity. This involves the establishment of a new lower purity quartz resource to be beneficiated in quality, allowing a new manufacturing process tailored to beneficiating the purity of Western Australia quartz and finally the establishment of the high purity quartz flour manufacturing plant and the associated supply chains.

The key objective of this project is to commercialise the manufacturing process of High Purity Quartz flour within Western Australia. This will involve sourcing and beneficiating the purity of lower quality quartz through primarily mechanical and possibly chemical processes. The establishment of a process and purity standard has the potential to lead to a manufacturing facility, commercial partners and a supply chain for the critical minerals.

The three main objectives for the project are:

- To determine the key elements that would lead to the successful commercialisation of a manufacturing process to beneficiate the quality of the lower purity quartz (99.9% SiO<sub>2</sub>) to a higher silica grade.
- To complete a pre-feasibility study that would determine the grade of quartz and processing method that could feasibly be manufactured from its existing feedstocks with a target of reaching 99.999% SiO<sub>2</sub> purity quartz flour.
- To establish a full-scale manufacturing plant to process the resource into high purity quartz flour utilising the work from the previous objectives, testwork and marketing carried out as a backbone to support the future work to be carried out.

The HPQ market is one of growing demand but with a relatively small supplier base.

Initially, VRX will investigate the potential for the coarse material that will be produced from its Muchea Silica Sand Project. Recent pilot plant work completed on a 2.2 tonne bulk sample of Muchea sand indicated that a portion of project ore may meet the specification required.

Whilst the goal is to achieve the high-quality required, by raising its high-grade silica sand resource from its Muchea Project to at least “4 nines” (ie. 99.99%  $\text{SiO}_2$  purity) it would still allow a wide range of high demand large-value products to be made. This includes use as a feed material for several industries and downstream products including paint fillers, fibre glass, water purity media, and silica flour for the production of LCDs and silica gels.

## About VRX Silica Limited

**VRX Silica Limited (ASX: VRX)** is the most advanced pureplay silica sand company listed on the ASX, developing its 100% owned silica sand projects at Arrowsmith (North, Brand and Central), Muchea and Boyatup in Western Australia.

Silica sand is the most used commodity on the planet after air and water. It is the main ingredient in all types of glassmaking, including specialty solar panel and high-tech glass, and foundry casting. It is a finite resource that is running out, with the Asia-Pacific region experiencing an ever-growing supply shortfall that is driving up prices.

Arrowsmith is located 270km north of Perth. Arrowsmith North boasts a minimum 25-year mine life capable of producing more than 2Mt tonnes per year of high-grade (99.7% SiO<sub>2</sub>) silica sand for export to the foundry, container glass and flat glass markets in Asia, with permitting well advanced, and will lead production.

Muchea, located 50km north of Perth, is an ultra-high-grade (99.9% SiO<sub>2</sub>) silica sand project capable of producing sand required for ultra-clear glass for solar panels and other high-tech glass applications.

Boyatup, located 100km east of Esperance, is under development and capable of producing sand for the glass market.



\*Information relating to grades are extracted from releases to ASX on 28 August 2019 and 11 November 2022 (Arrowsmith North) and 18 October 2019 (Muchea). The company is not aware of any new information or data that materially affects this information.

## ANNEXURE A – SUMMARY OF FUNDING MILESTONES

Milestone Number	Milestone Description	Due Date	Evidence	Payment Trigger	Funding Amount (ex-GST)	Recipient Co-Contribution
1	Agreement execution	On execution of the Agreement	Signed agreement	-	0	0
2	Initial Planning and Project Management	Jun-23	Proposal and completed report	x	\$50,000	\$50,000
3	Beneficiation Testwork	Dec-23	Results report, paid invoices	x	\$150,000	\$150,000
4	Lab scale Testwork	Jun-24	Results report, paid invoices	x	\$200,000	\$200,000
5	Bulk Scale Testwork includes Pilot Plant Construction and Testing	Dec-24	Report and physical sample analysis, Pilot Plant Inspection, photographic evidence, Paid equipment invoices, Certificates	x	\$500,000	\$500,000
6	Process Plant Construction (Stage 1)	Jun-25	100% Design Report, Engineering construction completion,	x	\$950,000	\$950,000
7	Process Plant Testing and Commissioning (Stage 1)	Dec-25	Commissioning report, Process Plant Inspection Practical completion certificate	x	\$50,000	\$50,000
8	Project Completion	Jun-26	Project Completion Report, Paid invoices, Final Budget certified by CFO.	x	\$50,000	\$50,000
9	Final report	Jun-26	Final Project Report Detailed project finalisation report, confirming recipient's co-contribution to the Project, certified by the Recipient's Chief Financial Officer	x	\$50,000	\$50,000
<b>Total Grant Funding</b>					<b>\$2,000,000</b>	<b>\$2,000,000</b>