29 October 2020

ASX ANNOUNCEMENT

Mining Lease granted for Muchea Silica Sand Project

Highlights:

- ***Mining Lease granted for Muchea Silica Sand Project***
- ***Grant area of over 1,000ha supports +25-year mine life***
- ***Grant area contains Probable Ore Reserve of 14.6Mt @ 99.9% SiO_2 and Inferred Mineral Resource of 61.4Mt @ 99.6% SiO_2***
- ***Mining Lease grant clears pathway for development of a project with a post-tax NPV_{10} of $338m***

VRX Silica Limited (**VRX** or **Company**) (ASX: VRX) is pleased to announce the grant of a Mining Lease for its Muchea Silica Sand Project (**Muchea Project**), located 50km north of Perth, Western Australia.

The Mining Lease (M70/1390) covers approximately 1,008ha including the development area, sufficient for at least 25 years of production as per the Muchea Project's Bankable Feasibility Study (**BFS**) released in October 2019[1].

VRX's Managing Director Bruce Maluish said: "The grant of the Mining Lease is a significant milestone for VRX Silica and a major step forward in our journey to becoming a global, long-life supplier of high-quality silica sand.

"Demand from potential customers for long-term supply of silica sand from the Muchea Project is strong. With the Mining Lease secured, we look forward to stepping up negotiations to finalise sales contracts for high-quality silica sand products and secure the necessary funding for the project's $32 million development.

"The Muchea Project is a world-class, high-grade and low environmental impact silica sand project with outstanding economics and located in a Tier 1 jurisdiction. Its development will support a substantial export industry in Western Australia and provide significant financial and employment benefits in the north-eastern corridor of Perth."

ASX: VRX

Capital Structure

Shares on Issue:
445.1 million

Listed Options:
23.9 million
Unlisted Options:
69.5 million

Corporate Directory

Paul Boyatzis
Non-Executive Chairman
Bruce Maluish
Managing Director
Peter Pawlowitsch
Non-Executive Director
John Geary
Company Secretary

Silica Sand Projects

Arrowsmith Silica Sand Project, 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.

[1] ASX Announcement of 18 October 2019, *"Muchea BFS and Maiden Ore Reserve"*

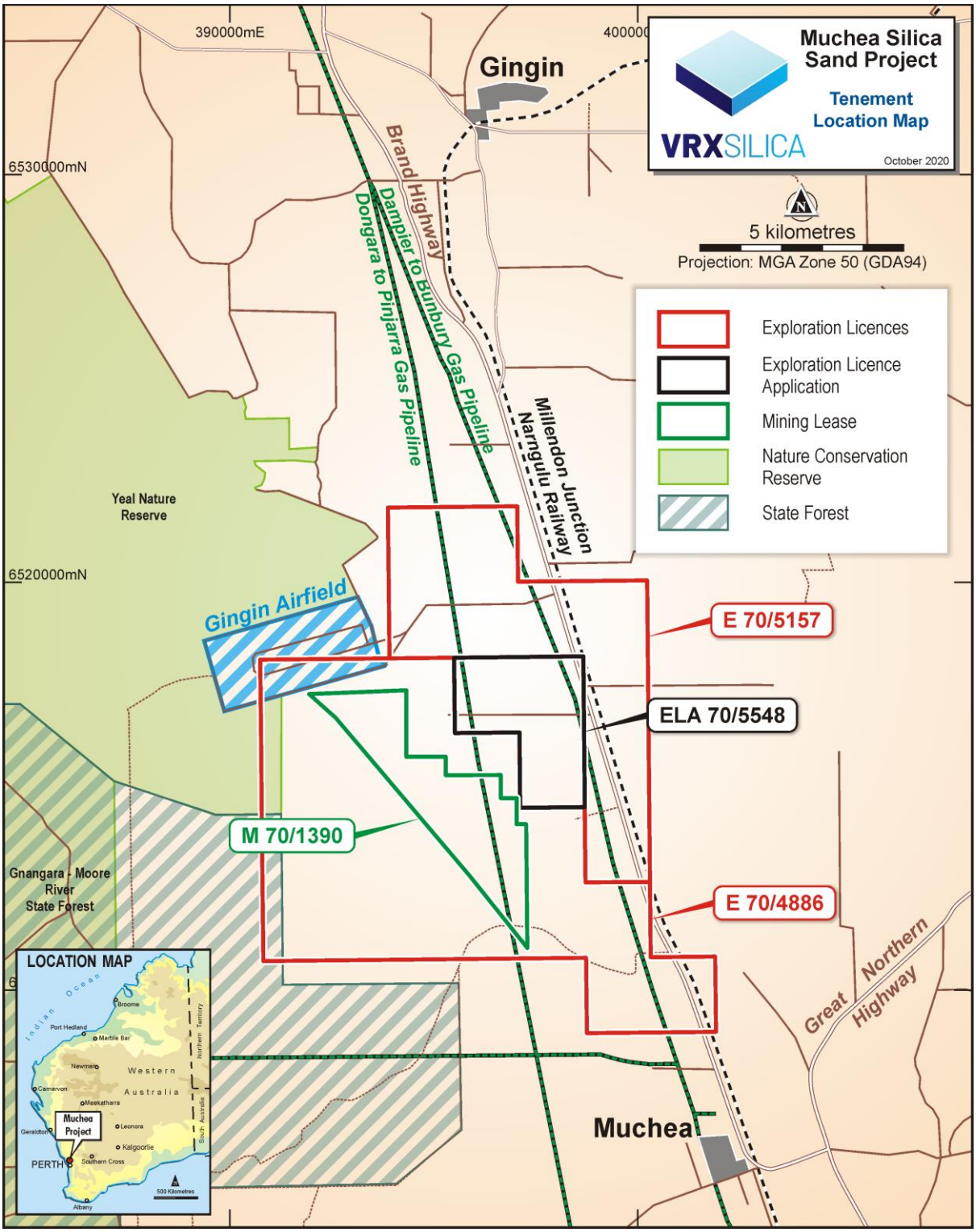

Figure 1: Location and plan of the Muchea Project

Project Location

The Muchea Project is located 50km north of Perth between the regional West Australian towns of Muchea and Gingin (Figure 1).

It sits adjacent to Brand Highway and the Moora–Kwinana Railway, with a rail connection direct to the multi-user Kwinana Bulk Terminal.

Mineral Resource and Ore Reserve

The Mineral Resource Estimate (**MRE**) for the Muchea Project comprises **208Mt @ 99.6% SiO_2**[2] reported in accordance with the JORC Code[3] (Table 1).

The MRE is based on the results obtained from 44 hand auger drill holes for 260.7m and 103 air core (**AC**) drill holes for 1,401m used to define the modelled silica sand layer.

Classification	Million Tonnes	SiO_2%	Al_2O_3%	Fe_2O_3%	LOI%	TiO_2%
Indicated	29	99.6	0.09	0.03	0.22	0.07
Inferred	179	99.6	0.05	0.02	0.23	0.1
Indicated + Inferred	208	99.6	0.06	0.02	0.23	0.1
**Note: Interpreted silica sand mineralisation is domained above a basal surface wireframe. The upper (overburden) layer within 0.5 m of surface is depleted from the modelled silica sand unit, being reserved for rehabilitation purposes. All classified silica sand blocks in the model are reported. Differences may occur due to rounding.*						

Table 1: Muchea Mineral Resource Estimate

The Company has completed the necessary work to convert the Indicated Mineral Resource to Probable Ore Reserve[4]. Table 2 details the Probable Ore Reserve reported in accordance with the JORC Code that will be produced from mining of the Indicated Mineral Resource and processing in a purpose-built, wet-sand processing plant.

Ore Reserve			Global	Within M70/1390					
Classification	**Product**	**Recovery**	**Million Tonnes**	**Million Tonnes**	**SiO_2 %**	**Al_2O_3 %**	**Fe_2O_3 %**	**TiO_2 %**	**LOI %**
Probable	Muchea-F80	48%	10.2	8.0	+99.9	0.02	0.008	0.030	0.1
	Muchea-F80C	20%	4.25	3.3	+99.9	0.02	0.008	0.030	0.1
	Muchea-F150	20%	4.25	3.3	99.8	0.07	0.015	0.035	0.1
		Total Reserve	**18.7**	**14.6**					

Table 2: Muchea Silica Sand Probable Ore Reserve

[2] ASX announcement of 17 June 2019, *"Muchea Mineral Resource Estimate Upgrade"*.
[3] Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves, 2012 Edition (**JORC Code**).
[4] ASX Announcement of 18 October 2019, *"Muchea BFS and Maiden Ore Reserve"*

Initial Production Target

The Company has set out in the BFS an initial production target of **48.3Mt** from the Muchea Project reported in accordance with the JORC Code, sourced from the Probable Ore Reserve of **14.6Mt @ 99.9% SiO_2** and a portion of the Inferred Mineral Resource of **61.4Mt @ 99.6% SiO_2** within the Mining Lease area.

The maiden Probable Ore Reserve is estimated from the Indicated Mineral Resource only and constitutes approximately 30% of the estimated total production target (in terms of processed tonnes of silica sand) over a 25-year mine life. The Company intends to mine solely from the Probable Ore Reserve during the first nine to 10 years of mining operations.

The ore that forms the Inferred Mineral Resource is contiguous with the Indicated Mineral Resource and has been categorised as lower confidence because of wider-spaced drilling. There is negligible difference between the modelled sand in each category and it is believed an additional 1,500m of drilling would be required to upgrade the inferred resource category.

Notwithstanding this, there is a low level of geological confidence associated with inferred mineral resources and there is no certainty that further exploration work will result in the determination of indicated mineral resources or that the production target itself will be realised.

Full details are set out in the BFS.

Silica Sand Products

Based on metallurgical test work completed to-date, the silica sand at Muchea is readily amenable to upgrading by conventional washing and screening methods to produce a high-purity silica sand product with high mass recoveries. The high-purity silica sand product specifications are expected to be suitable for industries such as glass making and foundry sand.

The plant will produce three saleable products for different markets with a **Probable Ore Reserve** of **14.6Mt @ 99.9% SiO_2** reported in accordance with the JORC Code contained within the area of the Mining Lease.

Table 3 shows the particle-size distribution of the products.

Particle Size	**Sieve Opening (µm Retained)**							
Product	850	600	425	300	212	150	106	75
Muchea-F80		0.5%	49%	50%	0.5%			
Muchea-F80C	9.0%	90.0%	1.0%					
Muchea-F150				0.5%	88%	11%	0.5%	

Table 3: Muchea saleable products, particle size distribution

Project Metrics

The Muchea Project has outstanding economic prospects.

Key outcomes from the BFS[5] and summary financial model outputs are set out below.

	Muchea (including Inferred)	Muchea (Reserve only)
Post Tax, ungeared NPV_{10}	$337,900,000	$180,500,000
Post Tax, ungeared NPV_{20}	$146,400,000	$104,600,000
Post Tax, ungeared IRR	96%	96%
Payback period (yrs) (post tax) (ramp up rate)	2.3	2.3
Exchange Rate US$/A$	$0.70	$0.70
Life of Mine (yrs) (Scope of BFS Study)	25	15
Total Sales (initial 25 years) no escalation	$3,345,000,000	$1,011,000,000
EBIT	$1,540,000,000	$447,000,000
Cashflow after finance and tax	$1,123,000,000	$321,000,000
Shares on Issue	404,318,617	404,318,617
EPS after tax (per year)	$0.11	$0.09
Capex (2 mtpa)	$32,820,000	$32,820,000
Capex contingency (inc)	20%	20%
Life of Mine C1 costs, FOB Kwinana (inc royalties)	$32.74	$33.84
Tonnes Processed (initial 25 years) (Mt)	54	16
Production Target (Mt) (BFS Study)	(25 years) 48.3	(9-10 years) 14.6
Probable Ore Reserves @ 99.9% SiO_2 (Mt)	18.7	18.7
Ore Reserve life (yrs)	9-10	9-10
JORC Resources (million tonnes)	208	208

Notes:

1. The first column shows outputs when aggregated with the Inferred Mineral Resource and the second column shows outputs from the Probable Ore Reserve only.
2. There is a low level of geological confidence associated with inferred mineral resources and there is no certainty that further exploration work will result in the determination of indicated mineral resources or that the production target itself will be realised.
3. The Probable Ore Reserve and the Inferred Mineral Resource underpinning the above production targets have been prepared by a Competent Person in accordance with the requirements of the JORC Code.
4. Full summaries of economic assumptions are set out in the BFS. All such material assumptions continue to apply and have not materially changed from the date of release of the BFS.
5. All figures are presented in Australian dollars, unadjusted for inflation.

[5] ASX Announcement of 18 October 2019, *"Muchea BFS and Maiden Ore Reserve"*

Permitting

VRX is in the process of finalising further studies and compilation of necessary data to support formal referrals to the Federal Department of Agriculture, Water and Environment (**DAWE**) and the State Environmental Protection Authority (**EPA**) to secure environmental approvals for the development of the Muchea Project. The Company and its environmental consultants have held pre-referral meetings with representatives from DAWE and the EPA and received valuable feedback as to requirements for these referrals.

The Company will also seek to expedite approval for its mine plan and the issue of a mining permit from the Department of Mines, Industry Regulation and Safety.

Potential for Extension of Life of Mine

Mining Lease M70/1390 is a conversion of part of Exploration Licence E70/4886, which covers a portion of file notation area 12671 (**FNA**). The FNA ground within the Exploration Licence sits adjacent to the Mining Lease and outside of the current proposed development area, and does not affect the BFS-modelled 25-year production life.

VRX intends to seek access to this ground to extend the Muchea Project's mine life to well beyond 25 years. To that end, the Company will continue to assess available options to do so while addressing concerns relating to the FNA.

Material Assumptions

Full details of the bankable feasibility study for the Muchea Project, including material assumptions, are contained in VRX's ASX announcement of 18 October 2019. All such material assumptions continue to apply and have not materially changed from the date of release of the BFS. Whilst VRX considers all of the material assumptions to be based on reasonable grounds, there is no certainty that they will be correct or that the range of outcomes indicated within the studies will be achieved.

Competent Persons' Statements

The information in this document that relates to Muchea Exploration Results and Muchea Aircore Drilling Area Mineral Resources are based on data collected and complied under the supervision of Mr David Reid, who is a full-time employee of VRX Silica Limited. Mr Reid, BSc (Geology), is a registered member of the Australian Institute of Geoscientists and has sufficient experience that is relevant to the style of mineralisation and type of deposit under consideration and the activity being undertaken to qualify as a Competent Person under the 2012 edition of the Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves (JORC Code). Mr Reid consents to the inclusion of the data in the form and context in which it appears.

The information in this report that relates to Muchea Auger area Mineral Resources is based on information compiled by Mr Grant Louw who was a full-time employee of CSA Global, under the direction and supervision of Dr Andrew Scogings, who is an Associate of CSA Global. Dr Scogings is a Member of the Australasian Institute of Mining and Metallurgy and a Member of the Australian Institute of Geoscientists. He is a Registered Professional Geologist in Industrial Minerals. Dr Scogings has sufficient experience relevant to the style of mineralisation and type of deposit under consideration and to the activity which he is undertaking to qualify as Competent Person as defined in the 2012 edition of the Australasian Code for the Reporting of Exploration Results, Mineral Resources, and Ore Reserves (JORC Code). Dr Scogings consents to the disclosure of information in this report in the form and context in which it appears.

The information in this report that relates to Muchea Probable Ore Reserves is based on data collected and compiled under the supervision of Mr David Reid, who is a full-time employee of VRX Silica Limited. Mr Reid, BSc (Geology), is a registered member of the Australian Institute of Geoscientists and has sufficient experience that is relevant to the style of mineralisation and type of deposit under consideration and the activity being undertaken to qualify as a Competent Person under the 2012 edition of the Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves (JORC Code). Mr Reid consents to the inclusion of the data in the form and context in which it appears.

This announcement has been authorised for release to ASX by Managing Director, Bruce Maluish.

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About VRX Silica

VRX Silica Ltd (**VRX Silica**) (ASX: VRX) has significant silica sand projects in Western Australia.

The Arrowsmith North and Arrowsmith Central Silica Sand Projects, located 270km north of Perth, comprise five granted exploration licences and two mining lease applications pending. Bankable feasibility studies for both projects have been released, each demonstrating exceptional financial metrics.

The Muchea Silica Sand Project, located 50km north of Perth, comprises two granted and one application for exploration licences, and one granted mining lease. Muchea is a world-class project with high purity silica sand in situ. A bankable feasibility study for the project has been released demonstrating outstanding financial metrics.

The Boyatup Silica Sand Project, located 100km east of Esperance, comprises two adjacent granted exploration licences. Initial indications are that this project will complement the Arrowsmith and Muchea projects while adding to the range of silica products capable of production.

Proven Management

The VRX Silica Board and management team have extensive experience in mineral exploration and mine development into production and in the management of publicly listed mining and exploration companies.

Project Locations