

30 January 2018

ASX ANNOUNCEMENT

Arrowsmith Silica Sands Project Testwork

- **Glass-making quality with low capital intensity**
- **Conventional processing**
- **Potential for higher quality**

Ventnor Resources Ltd ("Ventnor" or "the Company") (ASX: VRX) is pleased to announce the results of an initial testwork program on samples from its Arrowsmith Silica Sands Project, located 270km north of Perth, Western Australia.

Ventnor has four exploration license applications pending totaling 400km² and holding significant sand deposits.

The project is adjacent to Brand Highway and a rail connection to Geraldton Port, suitable for bulk handling.

Ventnor has been able to conduct a shallow hand auger program to collect composite representative samples from the Arrowsmith North prospect.

Samples were submitted to Nagrom Laboratories for an initial testwork program, which would emulate conventional sand processing techniques.

This testwork confirms that processing to upgrade the sand to glass-making quality will have a low-capital intensity, low technical risk and requires no processing chemicals.

Further testwork programs will be undertaken to investigate processing options to higher quality and higher value products.

Ventnor has been investigating markets in the Asia-Pacific region this year to potentially supply sand used for glass manufacturing, concrete construction and as a tech metal.

Asian glass demand is increasing for energy-saving double glazing and other applications within the expanding automobile industry in China and India.

There is a looming supply shortage because of reducing access to coastal and river deposits, depletion of known deposits and restrictions due to environmental regulation.

The Arrowsmith area potentially has low environmental impact mining propositions; rehabilitation techniques are well established in the industry.

Managing Director Bruce Maluish said: *"This initial program demonstrates that the Arrowsmith sand can easily achieve glassmaking quality and potentially a much higher quality and valuable product using conventional sand processing techniques".*

"Further testwork will be undertaken to determine final circuit design and products," Mr Maluish said.

ASX: VRX

Capital Structure

Shares on Issue 251 million

Unlisted Options 21.25 million

Market Cap @ 6¢ a share \$15 million

Cash \$1.2M

Corporate Directory

Paul Boyatzis

Non-Executive Chairman

Bruce Maluish

Managing Director

Peter Pawlowitsch

Non-Executive Director

John Geary

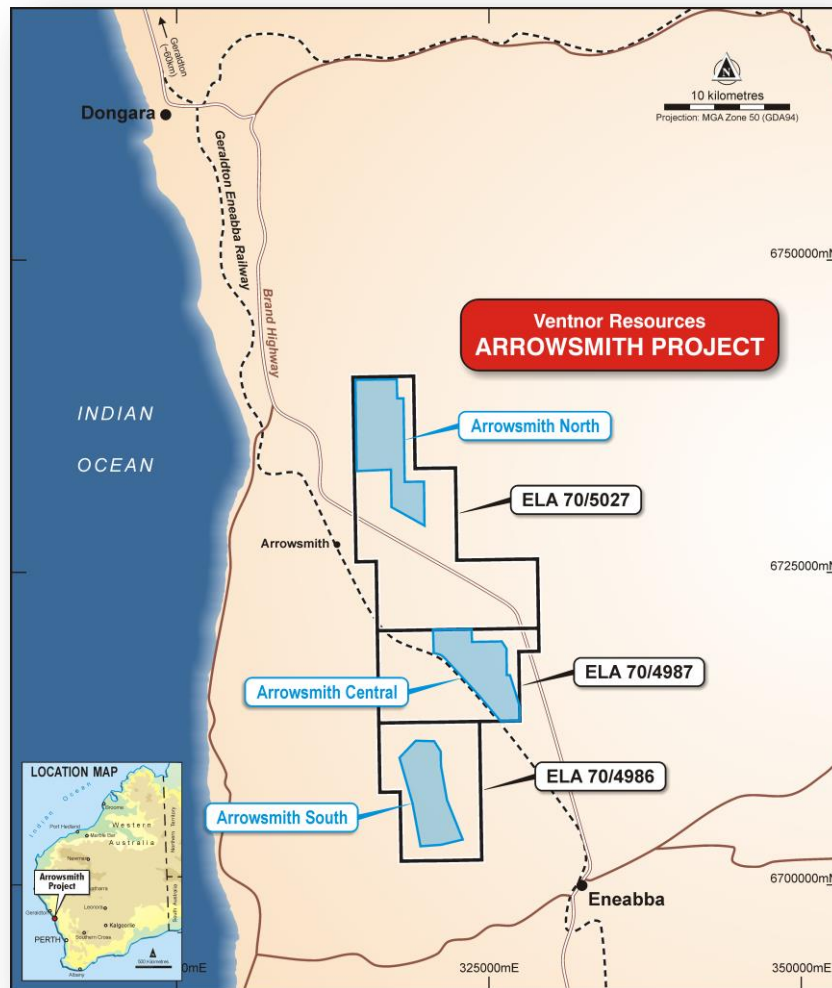
Company Secretary

Company Projects

Arrowsmith silica sands project near Eneabba, WA.

Biranup base metals and gold project adjacent to the Tropicana Gold Mine, WA.

Warrawanda nickel Project south of Newman, WA.



Arrowsmith Project Location

Arrowsmith Testwork Update

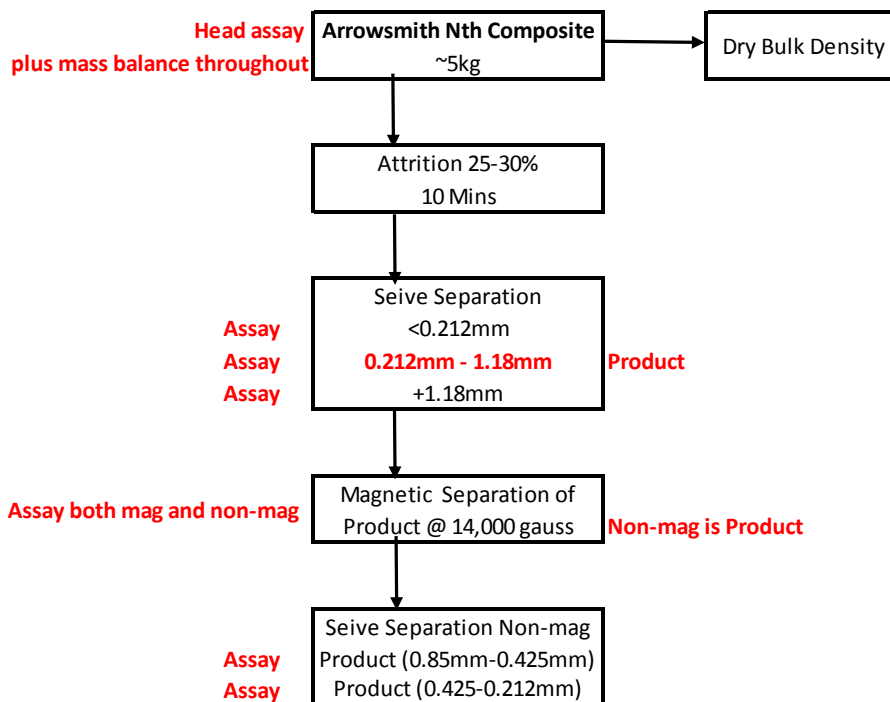
On 14 December 2017, Ventnor announced a mapping and shallow hand auger sampling program was under way at its Arrowsmith Project, 270km north of Perth in Western Australia. Also announced were preliminary testwork results, which indicated the bulk sand could be upgraded using simple sizing techniques, with further testwork to be carried out to determine if the sand could be further upgraded. In addition to this, samples were to be prepared and sent for proppant testing to API RP-19C standards.

The results of the auger sampling completed in December remain outstanding because of Laboratory delays. The results are now scheduled to be received next month. The proppant testing is well advanced and results are expected in the coming weeks.

The results of further silica sand testwork have been received and are summarised below.

A 5kg composite from Arrowsmith North was tested at the Nagrom Laboratory in Kelmscott, in Perth, using the following flowchart:

Nagrom Silica Sand Testwork



On the page following is a table detailing the testwork results. The feed stock in the test had a head assay of 97.7% $\text{SiO}_2 + \text{LOI}_{1000\text{C}}$, after attritioning, magnetic separation and sizing, the 0.425mm - 0.85mm product achieved a grade of 99.5% $\text{SiO}_2 + \text{LOI}_{1000\text{C}}$. The remainder of the product, 0.212mm - 0.425mm, returned an assay of 99.3% $\text{SiO}_2 + \text{LOI}_{1000\text{C}}$. It is believed that additional testwork will improve both of these product grades.

Of significance is the mass balance achieved during testing, as this is an indication of the potential recovery from the in-situ resources. From the feed stock, 93.6% is recovered in the initial 0.12mm – 1.18mm sizing and passed on for attritioning and magnetic separation. With negligible mass loss in the magnetic separation and final sizing step, the potential product recovery is +93%. The higher grade 0.425mm - 0.85mm sizing constitutes 70% of the final product with the finer 0.212mm - 0.425mm, sizing making up the balance.



Ventnor Resources Limited

Attritioning Testwork																
SAMPLE	Mass	Mass	Al ₂ O ₃	CaO	Cr ₂ O ₃	Fe ₂ O ₃	K ₂ O	Li ₂ O	MgO	MnO	Na ₂ O	TiO ₂	V ₂ O ₅	LOI ₁₀₀₀	SiO ₂ (calc.)	SiO ₂ (calc.) +LOI1000C
	kg	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	%	%
Arrowsmith North																
Assay Head	5.108	100%	11,470	110	15	4,180	1,300	52	100	25	100	1,670	-	0.57	97.1	97.7
Arrowsmith North Attrition																
Calc. Head	5.108		9,113	41	-	3,119	782	12	149	10	122	1,097	-	0.43	98.1	98.6
Size (mm)																
+1.18mm	0.001	0.02%	40,740	295	65	40,405	1,000	41	285	20	-	1,320	70	4.27	82.3	86.5
-1.18+0.212mm	4.782	93.6%	4,024	-	-	1,200	293	9	100	4	83	553	4	0.21	99.2	99.4
-0.212mm	0.325	6.4%	83,808	648	85	31,200	7,970	57	866	105	691	9,088	91	3.72	82.3	86.5

Feed Stock @ 97.7% SiO₂
Attritioned at 30% solids
for 10mins then sized

Magnetic Characterisation																
SAMPLE	Mass	Mass	Al ₂ O ₃	CaO	Cr ₂ O ₃	Fe ₂ O ₃	K ₂ O	Li ₂ O	MgO	MnO	Na ₂ O	TiO ₂	V ₂ O ₅	LOI ₁₀₀₀	SiO ₂ (calc.)	SiO ₂ (calc.) +LOI1000C
	kg	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	%	%
Arrowsmith North -1.18+0.212mm Attrition																
Assay Head			4,024	-	-	1,200	293	9	100	4	83	553	4	0	99.2	99.4
Arrowsmith North -1.18+0.212mm Attrition Magnetic Characterisation																
Calc. Head	4.576		3,845	1	-	1,251	252	9	84	-	-	532	-	0.22	99.2	99.4
14000G Magnetic																
Non-Magnetic	4.570	99.9%	3,812	-	-	1,200	250	9	81	3	68	456	4	0.22	99.2	99.4

93.6% of mass reports
to 0.22 – 1.18mm size
@ 99.4% SiO₂

Magnetic Separation
@ 14,000 gauss

Size By Analysis																
SAMPLE	Mass	Mass	Al ₂ O ₃	CaO	Cr ₂ O ₃	Fe ₂ O ₃	K ₂ O	Li ₂ O	MgO	MnO	Na ₂ O	TiO ₂	V ₂ O ₅	LOI ₁₀₀₀	SiO ₂ (calc.)	SiO ₂ (calc.) +LOI1000C
	kg	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	%	%
Arrowsmith North -1.18+0.212mm Attritioning Non Mag																
Assay Head			3,812	-	-	1,200	250	9	81	3	68	456	4	0.22	99.2	99.4
Arrowsmith North -1.18+0.212mm Attritioning Non Mag Size by Analysis																
Calc. Head	4.267		3,842	0	-	1,154	280	9	86	3	-	460	-	0.18	99.2	99.4
Size (mm)																
+0.85mm	0.024	0.49%	2,960	70	-	1,255	200	17	45	5	-	300	-	0.16	99.2	99.3
-0.85+0.425mm	2.938	61.4%	3,473	-	-	1,000	162	9	86	2	68	432	3	0.18	99.3	99.5
-0.425+0.212mm	1.305	27.3%	4,688	-	-	1,500	548	9	88	4	77	526	4	0.19	99.1	99.3

Non magnetics sent for
product re-sizing

93% of feed mass reports
to the final product.
70% is above **99.5% SiO₂**
The balance at 99.3% SiO₂

In addition to the testwork completed by Nagrom, Scanning Electron Microscopy (SEM) and Qualitative X-ray Diffraction (XRD) work has been completed by Microanalysis in East Perth to better understand the mineral forms of the deleterious elements. An understanding of the minerals that are present in the bulk sand mass will aid in further upgrading of the final product.

This work has resulted in the following findings:

- The Loss on Ignition (LOI_{1000C}) is largely because the presence of salts such as Halite and Sylvite;
- The Fe and Ti minerals are present as Iron oxides, Ilmenite and Rutile;
- Aluminium, a major contaminant, is present as Al(OH)₃, being a form of bauxite such as Gibbsite; and
- Mineral grains are largely liberated, with 60-78% for the Fe and Ti minerals, and 99.8% for the Gibbsite.

Future Testwork

The next phase of planned testwork focused on the removal of the dense Fe/Ti minerals, >4g/cc, and the lighter Gibbsite, <2.4g/cc, in comparison with the quartz sand grains, 2.62g/cc. Initial testing using Heavy Liquid Separation (HLS) will be followed with a bulk sample, ~200kg, to be tested over a wet table to determine if conventional gravity separation equipment such as spirals will assist with the final product upgrade. Testwork to date shows that ~5,000ppm, or 0.5% of the current product, is reporting to these minerals. Successful gravity separation could upgrade the final product to >99.8% SiO₂ +LOI_{1000C}.

It is anticipated the bulk sample product will be used for marketing purposes to secure offtake and pricing agreements.

Further information:

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Competent Person's Statement

The information in this release that relates to Exploration Results is based on, and fairly represents, information compiled by Mr David Reid who is a Member of the Australian Institute of Geoscientists (MAIG). Mr Reid is a contractor to Ventnor Resources Limited. Mr Reid has sufficient experience which is relevant to the style of mineralisation and type of deposit under consideration and to the activity which he is undertaking to qualify as a Competent Person as defined in the "2012 Edition of the Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves." Mr Reid consents to the inclusion in this report of the matters based on information provided by him and in the form and context in which it appears.

About Ventnor

Ventnor Resources Ltd ("Ventnor") (ASX: VRX) has four exploration licence applications pending over the Arrowsmith Silica Sands Project, located 270km north of Perth, Western Australia. Initial testwork is focusing on confirming that the sand can be upgraded to glass-making quality.

Ventnor also has granted tenements adjacent to the Tropicana Gold Mine in WA that are prospective for gold and base metals (Biranup Project), with prospects identified following an extensive review of historical data. The Company has compiled an extensive database of historic exploration, conducted extensive MLEM surveys in the region, and completed initial drill programs at a number of its prospects.

Ventnor has an extensive landholding prospective for silica sand at the Arrowsmith Project as detailed in a previous announcement.

Also in Western Australia, 40km south of Newman, is Ventnor's Warrawanda Nickel Project, which is prospective for nickel sulphides.

Proven Management

The Ventnor directors have extensive experience in mineral exploration and production, and in the management of publicly listed mining and exploration companies.

Project Locations

