

10 November 2022

Wonarah Phosphate Project Direct Shipping Ore (DSO) Project Update

Avenira Limited (ASX: AEV) (“**Avenira**” or “**the Company**”) is pleased to provide the following update on the proposed DSO Phosphate Project, to mine and sell high-grade phosphate ore from its Tier 1, 100% owned Wonarah Phosphate Project to third parties to produce high-purity phosphoric acid (the “**DSO Project**”).

Highlights:

- **Testing has confirmed Wonarah Ore to be well suited for the production of battery-grade Phosphoric Acid due to its high grade, physical robustness and large consistent lump sizing.**
 - **Ore samples from Wonarah have exceeded product specification requirements for production of high purity phosphoric acid.**
- **Offtake discussions are well advanced, with a binding offtake agreement expected to be executed for the sale of up to 600,000tpa of high grade, high value Wonarah DSO phosphate ore.**
- **AMC Consultants Pty Ltd have been engaged to conduct a mining front-end engineering design study (FEED). Completion of this work is targeted for November 2022.**
- **The Northern Territory Government is expected to issue a Mining Licence after the final submission of the revised Mine Management Plan for the DSO Project, which is being developed by EcOz Environmental Consulting in tandem with the FEED Study.**
- **Negotiations are progressing with road haulage contractors and rail operator Aurizonⁱ for transport of DSO material from Wonarah to Darwin Port, where it will be shipped to SE Asian offtakers.**
- **Negotiations with the Arruwurra Aboriginal Corporation regarding a Mining Agreement are progressing well, with a mutual understanding of the benefits of the fast-track opportunity.**
- **Prices for high grade Phosphate ore (32% P₂O₅) continue to trade at or near record highs, and are expected to remain elevatedⁱⁱ throughout 2023 and 2024 due to global fertiliser shortages and the accelerating adoption of Lithium Ferro Phosphate battery cells.**

For personal use only

Wonarah Phosphate Project (Avenira 100%) - Summary

Wonarah has the largest high grade Phosphate resource in Australia, with its ore well suited for the production of high purity phosphoric acid for use as a feedstock to Avenira's proposed Lithium Ferro Phosphate (LFP) manufacturing plant, as well as direct sales into agricultural and industrial chemical markets.

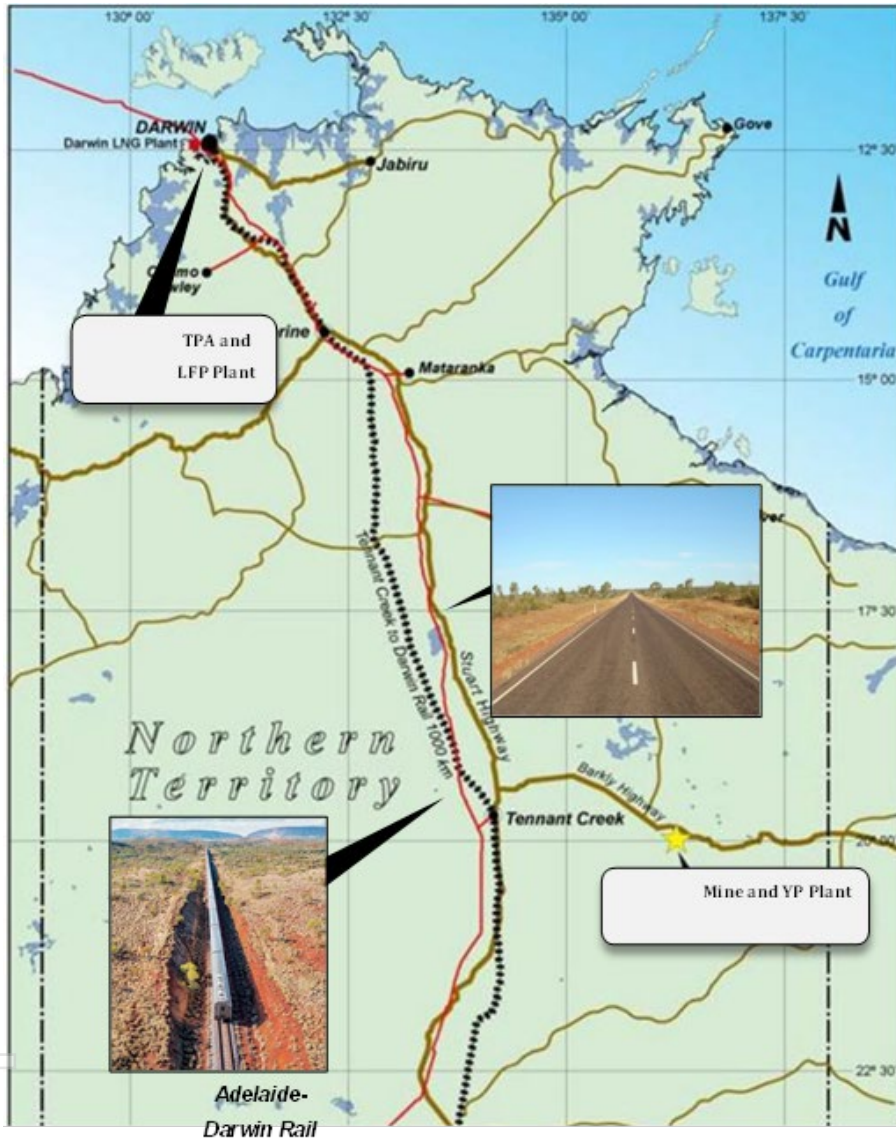


Figure 1. Location of Wonarah and infrastructure routes

- Tier 1 large premium grade phosphate deposit in Australia (15% Cut off grade):
 - Measured Resource of 64.9 Mt @ 22.4% P_2O_5 ;
 - Indicated Resource of 133 Mt @ 21.1% P_2O_5 ;
 - Inferred Resource of 335 Mt @ 21% P_2O_5 .
 - 100%-owned by Avenira.
- Excellent infrastructure including nearby road, rail, gas, and water.

DSO Offtake Engagement

Avenira is well advanced on discussions for binding offtake agreements. Marketing samples have been successfully shipped and are being laboratory tested by interested regional Phosphoric Acid customers. These samples have been independently verified to contain an abnormally high phosphorous content which paired with the physical robustness of the phosphate ore makes it uniquely suited for thermal processing and the production of high-purity Battery Grade Phosphoric Acid. Additionally, trial shipments have been requested by potential offtakers.

Pending successful product qualification, a binding offtake agreement is expected to be executed for the sale of up to 600,000tpa of high grade, high value DSO phosphate ore.



Figure 2. Crushed stockpile from trial pit used for marketing sample



Figure 3. Avenira's Chief Geologist Steve Harrison collecting representative samples for marketing analysis.

For personal use only

Mining FEED Study and Mine Management Plan

Avenira has appointed AMC Consultants and EcOz Environmental Consulting to complete a mining FEED study and revised Mine Management Plan to produce up to 600,000 tonnes per annum of 28% P₂O₅ phosphate ore.

The mining FEED Study is due to be completed in November 2022 and the revised Mine Management Plan is well progressed and currently expected to be completed in December 2022.

Mining Licence

Once complete the revised Mine Management Plan will be submitted to the Northern Territory Government for approval for a Mining License, which is expected to be granted shortly after submission.

Phosphate Market Dynamics

Morocco FOB Phosphate ore prices for 32% P₂O₅ remained strong at US\$317.5/t in October 2022, with the World Bank forecasting Phosphate Rock prices to remain elevated at US\$200/t in 2023ⁱⁱ. Due to its abnormally high-grade, physical properties and low impurities, Avenira may command a premium to the benchmark price for Wonarah Ore.



Figure 4: Phosphate Rock Price last 12 months

Phosphate prices are intrinsically linked to international supply and demand trends for agriculture, with the majority of phosphate rock being used to produce mineral fertilisers. Growing human populations and expanding meat consumption in developing countries have continued to outpace new production capacity, increasing long-term phosphate rock prices.

This upward trend has been particularly evident over the past 12 months, with a confluence of geopolitical factors providing additional tailwinds for phosphate rock prices, including:

- Russian exports falling significantly following globally imposed economic sanctions relating to the invasion of the Ukraine;
- China suspending phosphate exports to ensure adequate availability for domestic supply needs; and
- European Union heavy metal limits for phosphate imports affecting supply originating from Morocco, one of the largest producers of phosphate rock.

Avenira anticipates elevated phosphate pricesⁱⁱ to continue over the medium to long term, driven by demand in the fertiliser markets together with the rapid adoption of Lithium Ferro Phosphate battery cells.

Other - DSO Operations

Mining contractor selection process underway with request for quotation to be distributed shortly.

Rail haulage rates are currently being negotiated with Aurizonⁱ for Tennant Creek to Darwin transport to formulate the freight and logistical framework required to transport the DSO ore to the Darwin port.

Negotiations to lease an existing under utilised construction camp (less than 5 years old) adjacent to the Wonarah mine has commenced and will be executed once the mining license is granted.

Mining use agreements with the Arruwurra Aboriginal Corporation are being progressed, and are expected to be finalised and executed in December qtr 2022.

Avenira Executive Chairman, Mr. Brett Clark commented:

“The Phosphate market continues to provide strong tailwinds for the development of the DSO Project.

Avenira has made significant progress on the DSO Project, and the Company is aiming to commence its DSO operation in early 2023. The Company is expecting to generate significant cash flows in the near future, with its high-grade ore from the Wonarah mine.

Avenira intends to leverage its cash flows from the DSO operation to develop its integrated LFP Battery Cathode Project.”

This ASX announcement has been approved and authorised for release by the Board of the Company.

For further information please contact:

Brett Clark
Executive Chairman
+618 9264 7000

Media/Investor Queries
Citadel-MAGNUS
Michael Weir 0402 347 032
Jono van Hazel 0411 564 969

The information in this report relating to Wonarah Mineral Resource Estimates is extracted from the reports entitled “March 2014 Quarterly Activities Report” created on the 30th of April 2014 and “Annual Report Amendment” created on the 14th of October 2022 which are available to view on www.asx.com.au. The company confirms that it is not aware of any new information or data that materially affects the information included in the original market announcement and that all material assumptions and technical parameters underpinning the Mineral Resource Estimates in the relevant market announcement continue to apply and have not materially changed. The company confirms that the form and context in which the Competent Person’s findings are presented have not been materially modified from the original market announcement.

Forward-Looking Statements

This release may include forward-looking statements. Forward-looking statements may generally be identified by the use of forward-looking verbs such as anticipate, aim, expect, intend, plan or similar words, which are only predictions and are subject to risks, uncertainties and assumptions which are outside the control of Avenira Limited. Actual values, results or events may be materially different to those expressed or implied in this release. Given these uncertainties, recipients are cautioned not to place reliance on forward-looking statements. Any forward-looking statements in this release speak only at the date of issue. Subject to any continuing obligations under applicable law and the ASX Listing Rules, Avenira Limited does not undertake any obligation to update or revise any information or any of the forward-looking statements in this release or any changes in events, conditions or circumstances on which any such forward-looking statement is based.

Mineral Resource Statement

WONARAH PROJECT, NORTHERN TERRITORY, AUSTRALIA												
Cut off P ₂ O ₅ %	Resource Category	Tonnes	P ₂ O ₅	Al ₂ O ₃	CaO	Fe ₂ O ₃	K ₂ O	MgO	MnO	Na ₂ O	SiO ₂	TiO ₂
		Mt	%	%	%	%	%	%	%	%	%	%
10	Measured	78.3	20.8	4.85	28	1.11	0.43	0.25	0.04	0.1	39.7	0.21
	Indicated	222	17.5	4.75	23.2	1.49	0.47	0.2	0.04	0.09	48.3	0.22
	M+I	300	18.3	4.77	24.4	1.4	0.46	0.21	0.04	0.09	46.1	0.22
	Inferred	512	18	4.8	24	2.1	0.5	0.2	0.08	0.05	46	0.2
15	Measured	64.9	22.4	4.47	30	1.1	0.37	0.19	0.04	0.09	37	0.19
	Indicated	133	21.1	4.77	28	1.53	0.47	0.21	0.04	0.09	39.7	0.22
	M+I	198	21.5	4.67	28.7	1.39	0.44	0.2	0.04	0.09	38.8	0.21
	Inferred	335	21	4.5	28	2.0	0.5	0.2	0.10	0.06	39	0.2

ⁱ (Aurizon Operations Limited) (**Aurizon**), Australia’s largest rail freight operator / a Tier-1 transport operator

ⁱⁱ World Bank Commodity Price Forecasts Released: October 26, 2022 at <https://www.worldbank.org/en/research/commodity-markets>