

## DRILLING COMPLETED AT BITTERWASSER LITHIUM PROJECT

### HIGHLIGHTS

- Follow-up auger drilling program completed, which is aimed at potentially expanding the existing JORC Mineral Resource
- 64 auger drill holes completed at 1 of 7 known pans for 412.60 m of core
- 370 core samples sent for assay
- Assay results expected from mid-February, with final results expected by mid-March 2022
- Drilling was aimed at testing the upper and middle clay thicknesses and continuity of mineralisation at the pan, which contains the current inferred JORC mineral resource of 15.1 million tons @ 828ppm Li and 1,79% K.
- If results are favourable, a revised JORC Mineral Resource estimate is expected by late March to mid-April 2022
- A large clay sample is undergoing mineralogical and metallurgical test work in Germany, with mineralogical results expected shortly to establish the suitability of the Bitterwasser clays for beneficiation
- Lexrox to continue self-funding the work program subject to the acquisition being approved by shareholders of the Company

**Arcadia Minerals Ltd (ASX:AM7, FRA:8OH)** (Arcadia or the Company), the diversified exploration company targeting a suite of projects aimed at Tantalum, Lithium, Nickel, Copper and Gold in Namibia, is pleased to announce that it has **completed the follow up drilling program** commenced in December 2021<sup>1</sup> at the recently acquired Bitterwasser Lithium-in-

<sup>1</sup> Refer ASX announcement dated 1 December 2021 "Arcadia commences drilling program at its Bitterwasser Lithium Clays Project"

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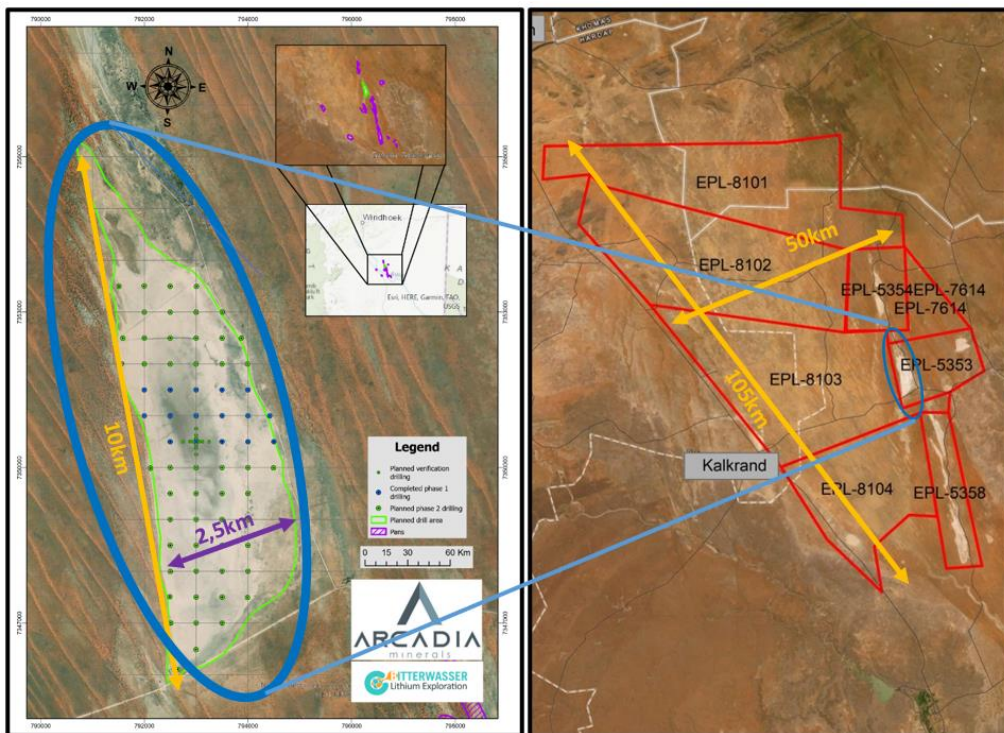
Clays Project, which drilling program was aimed at potentially expanding on the existing JORC Mineral Resource<sup>2</sup>.

**Auger drilling program**

The auger drilling program is primarily aimed at possibly extending the existing inferred JORC Mineral Resource of 15.1 million tons @ 828ppm Li and 1,79% K (at a cut-off grade of 680ppm Li) located in only one of seven exposed pans, from an area that represents approximately 6% of the total exposed clay pan surfaces at the project.

A total of 64 holes has been completed for 412.60 m, with a total of 416 samples 370 core and 46 QA/QC, despatched to Scientific Services Laboratories in Cape Town, South Africa for analysis. Assay results are expected to be received from mid-February, with final results expected by mid-March 2022. Once all results have been received, the Company will engage Snowden to revise the JORC Mineral Resource estimate, which the Company aims to have completed by late March to mid-April 2022.

The drilling program is focussed on the Eden pan located in the project area (refer to Map 1 below), which area contains seven exposed clay pans in a license area covering ~593km<sup>2</sup>. Depending on results attained from the completed drilling, the remaining six pans will be drilled in a follow up drilling program this year.



Map 1

Map 2

<sup>2</sup> Refer ASX announcement dated 3 November 2021 "Arcadia acquires adjacent Lithium project with JORC mineral resources"

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### Clay sample received and test work well underway

A representative 153.7 kg clay sample from the lithium enriched clay horizon made up from 5 boreholes, was sent to Anzaplan in Germany for mineralogical and metallurgical test work and is currently undergoing mineralogical and metallurgical test work to establish the suitability of the Bitterwasser clays for beneficiation. In addition, the analyses by Anzaplan is being conducted to understand the lithium concentration and lithium bearing phases in the Bitterwasser clays and to determine other phases to be considered in potential processing methodologies of the Bitterwasser clays. Once results are satisfactory, Arcadia will consider mandating Anzaplan to develop a process for the beneficiation of the clay materials, which includes hydrometallurgical extraction and recovery of lithium. Favourable results would be an important milestone for the Company to achieve in assessing the potential of the Bitterwasser Lithium in Clays Project. Mineralogical results are expected to be received shortly.

### Comparable Clay Projects<sup>3</sup>

Lithium production from clays on a commercial scale is still in its infancy; however, several companies are currently working towards implementation of recently developed lithium recovery techniques from clays.

Clay deposits in similar geological settings are presently being developed in Clayton Valley in Nevada USA, by Cypress Development and Noram Ventures in close proximity (within 1.5km<sup>2</sup>) to the Lithium-in-Brine operations of Albermarle Corp. and Pure Energy Minerals.

	Arcadia	Noram	Cypress
Resource in tonnes	15.1Mt*	363Mt	1,304Mt
Resource Classification	Inferred	Meas. and Ind.	Indicated
Cut-off	680ppm	400ppm	400ppm
Stage of Development	Discovery	PEA <sup>4</sup>	PFS
Average. Grade	828ppm	923ppm	904ppm
Att. Interest	50%	100%	100%
Land Package	403,100ha (4 031km <sup>2</sup> )	2,197ha (23.94Km <sup>2</sup> )	2,197ha (21.9Km <sup>2</sup> )
Brine Potential	To be determined	1.6km from Albermarle Corp's Silver Peak Brine operations.	Adjacent to Pure Energy Ltd and Albermarle Corp's Lithium-in-Brine operations

<sup>3</sup> Refer ASX announcement dated 3 November 2021 "Arcadia acquires adjacent Lithium project with JORC mineral resources". The results denoted in footnote 4 have transitioned from Pre-PEA to PEA, no material changes have occurred on this information since the announcement referred to has been made.

<sup>4</sup> <https://noramlithiumcorp.com/news/2021/noram-lithium-corp-zeus-pea-shows-31-after-tax-irr-usd-1.299-billion-after-tax-npv/>

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It is important to note that Cypress Development initially (before additional exploration) reported average lithium grades of 867 ppm Li, while Noram Ventures reported lithium grades of 858 ppm Li, which is very similar to the estimated average grade of the Mineral Resources reported to date within the Bitterwasser Eden Pan<sup>3</sup>.

**Additional Information: Bitterwasser Pan District and Acquisition<sup>3</sup>**

The area where the clay pans under investigation are situated is the subject of an acquisition by Arcadia's 50% owned associate company Brines Mining and Exploration Namibia (Pty) Ltd (BME). The acquisition is subject to shareholder approval, which will shortly be sought. In terms of the acquisition, BME has agreed to take cession and assignment of an agreement to acquire 100% of three licenses that contains 7 known exposed clay pans. The agreement to acquire the three licenses was concluded by LexRox Management Services (Pty) Ltd (LexRox), a South African company owned and operated by the executive directors of Arcadia. No consideration in relation to the cession and assignment is to be paid by BME or Arcadia to LexRox except to reimburse expenses with the preservation of the EPL's, to keep the Acquisition Agreement in good standing and to conduct exploration works anticipated by the completed drilling program.

Together with the BME licenses, the newly acquired license areas combine to provide Arcadia with a land package of 4,031Km<sup>2</sup> to form the greater Bitterwasser Lithium-in-Brines-and-Clays Prospect (see Map 2 above), which prospect covers prospective ground over a geological feature known as the Kalkrand Half-Graben. The Kalkrand Half-Graben displays first order requirements to possibly qualify as the world's latest district scale Lithium province similar to Clayton Valley in Nevada, USA.

The shallow hand auger drilling programme, which forms the basis of the existing Mineral Resource, covered approximately 26 % of the entire surface area of the Eden Bitterwasser saltpan. Results from the drilling program indicated the presence of significant lithium-in-clay mineralisation overlying the anomalous electrical-conductive body identified during the ground electrical conductivity survey. The lithium-clay mineralisation intersected within the relatively small area prospected was spatially continuous, trended moderately sub-parallel to the long axis of the saltpan and consistently yielded prospective Li grades. The clays increased in thickness and lithium content towards the central portions of the pan where Li grades approaching 1,200 ppm were encountered, which is in-line with similar projects situated near producing lithium mines in other parts of the world.

The exploration programme was aimed at characterizing the general stratigraphic sequence and to investigate the pan's lithium potential in terms of economic viability. Auger sampling confirmed the presence of a lithium-in-clay resource comparable in grade and extent to that owned by major exploration companies in Nevada, USA. In addition, it was found that the geological and environmental requirements for the formation of significant lithium-in-clay and lithium-in-brine deposits are present. However, the lithium grade in the indicated brines is yet to be confirmed through appropriate exploration techniques.

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Sufficient evidence exists to suggest the presence of a lithium-in-brine aquifer in the Bitterwasser Saltpan district. Supporting evidence comes from geological and environmental indicators identified through the work of Bitterwasser Lithium Exploration (Pty) Ltd. Such evidence includes water-quality data (total dissolved solids and electrical conductivity) from domestic water supply boreholes in the area, lithium-in-clay grades from hand auger drilling and associated electrical-conductive anomalies, the presence of conducive regional tectonic structures, favourable source rocks and climatic conditions in proximity to an enclosed basin. Such geological and environmental indicators are comparable in nature to known lithium-in-brine districts in other parts of the world. In addition, other economically significant saltpan districts around the world are associated with anomalous K and B values. The lithium mineralisation associated with the lithologies documented at Bitterwasser's Eden saltpan yielded B values of > 400 ppm and K values consistently > 1.8 wt. %. This emphasises the geochemical similarities with other globally significant saltpan districts.

The Bitterwasser Saltpan District is associated with the depositional development of the western portions of the greater Kalahari basin. It lies remarkably close to the inferred source of mineralisation, being the alkaline Brukkaros volcanic field. Elevated groundwater temperatures, as high as 39 °C, have been reported from domestic water-supply boreholes in close vicinity to the saltpans suggesting a deep-seated geothermal heat source and mineralisation mechanism. The thickness of the sedimentary packages which make up the Bitterwasser saltpans range between 30 m to 100 m thick and are of sufficient size and porosity to accommodate substantial brine aquifers.

**This announcement has been authorised for release by the directors of Arcadia Minerals Limited.**

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## COMPETENT PERSONS STATEMENT & PREVIOUSLY REPORTED INFORMATION

The information in this announcement that relates to Exploration methodology has been reviewed by the Competent Person (being a member of a Recognised Professional Organisation) whose name appears below and who is a director of the Company. The Competent Person has sufficient experience relevant to the style of mineralisation and types of deposits under consideration and to the activity which he has undertaken to qualify as a Competent Person as defined in the JORC Code 2012.

Competent Person	Membership	Report/Document
Mr Philip le Roux (Director Arcadia Minerals)	South African Council for Natural Scientific Professions #400125/09	This announcement

As stated above in the footnotes 1, 2 and 3 the Company confirms that the form and context in which a Competent Person's findings are presented in the referenced market announcements or geological reports have not been materially modified from the original market announcements or geological reports.

## MINERAL RESOURCES

The Company confirms that it is not aware of any new information or data that materially affects the information included in the Arcadia Minerals resource estimate and all material assumptions and parameters underpinning the estimate continue to apply and have not materially changed when referring to its resource announcement made on 3 November 2021, *Arcadia acquires adjacent Lithium project with JORC Mineral Resources*. 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.

## DISCLAIMER

Some of the statements appearing in this announcement may be forward-looking statements. You should be aware that such statements are only predictions and are subject to inherent risks and uncertainties. Those risks and uncertainties include factors and risks specific to the industries in which Arcadia operates and proposes to operate as well as general economic conditions, prevailing exchange rates and interest rates and conditions in the financial markets, among other things. Actual events or results may differ materially from the events or results expressed or implied in any forward-looking statement. No forward-looking statement is a guarantee or representation as to future performance or any other future matters, which will be influenced by a number of factors and subject to various uncertainties and contingencies, many of which will be outside Arcadia's control.

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#### **BACKGROUND ON ARCADIA**

Arcadia is a Namibia-focused diversified metals exploration company, which is domiciled in Guernsey. The Company explores for a suite of battery metals (Nickel, Lithium and Copper), precious metals, and owns the advanced Swanson Tantalum & Lithium project. Some of the Company's projects are located in the neighbourhood of established mining operations and significant discoveries.

The mineral projects include-

1. The Swanson Project – advanced tantalum and lithium project with early development potential
2. Kum-Kum Project – prospective for nickel, copper, and platinum group elements
3. Karibib Project – prospective for copper and gold
4. Bitterwasser Project – prospective for lithium-in-brines and lithium-in-clays.

Arcadia's exploration strategy is to rapidly advance the Swanson Tantalum project to a potential cash generating mining operation, thereby executing the first part of its three-pillar exploration strategy of becoming a potential cash generator (pillar 1) which is to provide cash resources to explore the Company's potentially company transforming assets (pillar 2) by utilising its human capital of industry specific experience tied with a history of project generation and bringing projects to results (pillar 3).

At Bitterwasser a JORC Mineral Resource of JORC Mineral Resource of 15.1 million tons @ 828ppm Li and 1,79% K (at a cut-off grade of 680ppm Li) representing only 6% of the exposed clay pans was defined over one of seven clay pans. The Mineral Resource was announced on the 3<sup>rd</sup> of November 2021 and is contained over three exploration licenses, which licenses are the subject of an acquisition that is conditional upon Arcadia shareholders' approval. See the table below for more details of the Bitterwasser mineral resource.

BITTERWASSER LITHIUM PROJECT MINERAL RESOURCE

Mineral Resource Category				
Classification	Tonnage (kt)	Li Grade ppm	Contained Li (ton)	Lithium Carbonate Equivalent
Total Indicated	0	0	0	0
Total Inferred	15 100	828	12 503	66 929
Total Resources	<b>15 100</b>	828	12 503	<b>66 929</b>

For more details, please visit [www.arcadiaminerals.global](http://www.arcadiaminerals.global)

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