

DRILLING GRAB SAMPLES INDICATE INCREASING LITHIUM GRADE TO DEPTH AT BITTERWASSER BRINES

Arcadia Minerals Limited (ASX:AM7, FRA:80H) (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 drilling of 6 of the 9 planned holes has been completed at the Company's Bitterwasser Lithium Brines Project.

HIGHLIGHTS

- Six grab samples were taken from shallow drill holes within the Upper-Sand Unit and returned up to 84ppm (83.9mg/L) at 68m, which is approximately halfway down the Bitterwasser Brine Pool
- The **Bitterwasser basin has a 42km x 9km geophysical anomaly**, so initial results are highly encouraging and point to the <u>potential of a significant lithium discovery</u>
- Sample results taken from the shallow holes, with results <u>indicating increasing</u>
 <u>Lithium grades to depth</u> (which is encouraging for intercepting higher grades at depth in the deeper holes)
- Deeper holes and Lower-Gravel Unit remains unsampled
- Mineralisation for **Potassium, Boron and other elements** are yet to be tested historical evidence points to the presence of some of these minerals
- An **extensive sampling program to commence shortly at 5m intervals** over all drill holes after completion of various tests, including pump-rate test work
- A total of 6 holes for 567m drilled at 3 sites, with each site containing a shallow and a deep drill hole to investigate two distinct units/aquifers
- Brines intersected at circa 27m. Basement intercepted between 68m and 115m
- o Final Assay Results and a hydrological review are expected by late Q1/2024

Philip le Roux, the CEO of Arcadia stated: "The assay results, albeit from the grab samples, are **extremely encouraging** as they indicate an **increasing Lithium grade to depth** and **significant mineralisation of up to 84ppm (83.9mg/L)** encountered **roughly halfway down the Bitterwasser brine pool**. As a result, we are eagerly looking forward to receiving the complete assay results, including the results of important hydrological indicators, from all the holes but particularly from the deeper holes.

Page 1

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The drilling work was completed in geology which is **conducive to high pump-rates**, with the upper quarter of lithology consisting mostly of poorly sorted angular sediments and the rest of the deeper gravels within the basin exhibiting matured, rounded and sorted gravels up to basement depth. This made drilling and borehole development challenging for the purposes of a comprehensive and reliable test program at varying depths, but we are pleased that the drilling completed successfully after alternative drilling methods were attempted over our most important target at Bitterwasser. The balance of the drilling is aimed at the magnetic low and the two other targets within the larger basin will be drilled in due course."

Drilling

The Company has completed the drilling of 6 holes consisting of two holes at three sites for a total of 567 m. The drilling was completed at locations approximately 10km apart over the length of the 42 km EM anomaly identified by a geophysical survey completed at the Bitterwasser Basin¹. Refer to Figure 1 in Annexure 1 for a map of the main geophysical anomaly and the locations of the drill holes.

Two holes were drilled at each drill site as two stratigraphic units, named the "Upper–sand" and "Lower–gravel", were identified from the stratigraphic drilling results². The two units are believed to hold varying hydrological properties, and by drilling a shallow hole to the inferred contact zone of the Upper-sand unit and a deeper hole to basement, the two units can be tested separately.

Drilling conditions within the two gravel units were challenging and progress was slow causing a delay of the program of approximately 30 days. After various methods of drilling and hole development were attempted, drilling was successfully completed to the planned depth.

Hole BBP04 in the middle of the anomaly was drilled deeper into the basement up to a depth of 127m to test possible stratigraphic variations.

Drillholes BBP01, BBP02 & BBP03 were drilled first to test the Upper-Sand Unit. All these holes were terminated within the upper limits of the Lower-Gravel Unit. The deeper holes, consisting of drillholes BBP04, BBP05 & BBP06, were drilled through the entire stratigraphy

¹ See Asx Announcement 6 February 2023 "Geophysical Interpretation Defines Drill Targets for Lithium Brines"

² Refer to Asx Announcement 17 May 2023 "*Mineralised Lithium Brines and Shallow Clays Discovered at Bitterwasser*"



into the basement. Refer to Annexure 2 for Table 1 setting out drillhole locations and Table 2 that sets out lithological logging results. Figure 2 in Annexure 3 shows a section of the drillhole results.

Grab samples within the shallow holes were taken using the Hydrasleeve³ sampling bags at two random depth-locations per hole to test the brines of the Upper-Sand Units with the purpose of receiving early indications of the mineralisation at greater depths than previously tested⁴.

Samples were assayed thrice and the highest of the three values are shown in table 3 of Annexure 2. The table represents an indication of the Lithium mineralisation in the Bitterwasser basin from the three shallow drill holes drilled within the Upper-Sand Unit and do not contain results of the Lower-Gravel Unit or indications of mineralisation for Potassium, Boron and other elements which are considered to be important co-elements within the Bitterwasser Basin. Once the detailed sampling program has been completed, a review of the results will be undertaken, and final conclusions may then be drawn.

The results attained thus far allow for some early observations:

- 1) That the basement is dipping towards the north (with basement elevation of around 1,070m in the south and 1,025m in the north)
- That the water table is encountered at a very constant elevation of around 1,120m, leading to the conclusion that the anomaly represents a contiguous brine pool of significant size,
- 3) That the lithology is conducive to high pump rates (results of which are still outstanding), and.
- 4) That mineralisation increases to depth.

A detailed sampling program in all the holes is expected to take place once pump rate tests have been concluded to obtain an understanding of the volume of brines that could be pumped for each location. Hereafter the holes would be allowed to stand for two weeks to stabilize before hydra-sleeves will be used for sampling at 5m intervals to determine the increasing rate of mineralisation to depth. Detailed sampling is expected to occur in the latter half of February 2024. Three samples will be collected from each interval with one to serve as a reference point and the remaining samples to be tested by two accredited laboratories for analyses. Final analyses and results are expected by the end of March 2024.

³ Refer to Asx Announcement 20 November 2023 "Drilling Commenced at Bitterwasser Lithium in Brines Project"

⁴ Refer to Asx Announcement 17 May 2023 "*Mineralised Lithium Brines and Shallow Clays Discovered at Bitterwasser*"



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 results is based on, and fairly represents, information and supporting documentation prepared by the Competent Person(s) whose name(s) appears below, each of whom is either an independent consultant to the Company and a member of a Recognised Professional Organisation or a director of the Company. The Competent Person(s) named below have 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	South African Council for Natural	This announcement
(Director Arcadia	Scientific Professions #400125/09	
Minerals)		

The Company confirms that the form and context in which a Competent Person's previous findings are presented in the footnotes above and noted in the table below have not been materially modified from the original market announcements and that all material assumptions and technical parameters underpinning the announcements continue to apply. 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 announcements.

Release Date	ASX Announcements
¹ 6 February 2023	Geophysical Interpretation Defines Drill Targets
^{2 & 4} 17 May 2023	Mineralised Lithium Brines and Shallow Clays Discovered at Bitterwasser
³ 20 November 2023	Drilling Commenced at Bitterwasser Lithium in Brines Project



BACKGROUND ON ARCADIA

Arcadia is a Namibia-focused diversified metals exploration company, which is domiciled in Guernsey. The Company explores for a suite of new-era metals (Lithium, Tantalum, Platinum-Group-Elements, Nickel and Copper). The Company's strategy is to bring the advanced Swanson Tantalum project into production and then to use the cashflows (which may be generated) to drive exploration and development at the potentially company transforming exploration assets. As such, the first two pillars of Arcadia's development strategy (a potential cash generator and company transforming exploration assets) are established through a third pillar, which consists of utilising the Company's human capital of industry specific experience, tied with a history of project generation and bringing projects to results, and thereby, to create value for the Company and its shareholders.

Most of the Company's projects are located in the neighbourhood of established mining operations and significant discoveries. The mineral exploration projects include-

- 1. Bitterwasser Lithium in Clay Project which project contains a potentially expanding JORC Mineral Resource from lithium-in-clays
- 2. Bitterwasser Lithium in Brines Project which is prospective for lithium-in-brines within the Bitterwasser Basin area.
- 3. Kum-Kum Project prospective for nickel, copper, and platinum group elements.
- 4. TVC Pegmatite Project prospective for Lithium, Tantalum and other associated minerals.
- 5. Karibib Project prospective for copper and gold.
- 6. The Swanson Mining Project advanced tantalum mining project undergoing development to become a mining operation, and which contains a potentially expanding JORC Mineral Resource within the Swanson Project area.

As an exploration company, all the projects of the company are currently receiving focus. However, currently the Swanson project and the Bitterwasser Lithium projects may be considered as Arcadia's primary projects due to their potential to enhance the Company's value.

For more details, please visit www.arcadiaminerals.global

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.

The Company does not undertake any obligation to update publicly or release any revisions to these forwardlooking statements to reflect events or circumstances after today's date or to reflect the occurrence of unanticipated events. No representation or warranty, express or implied, is made as to the fairness, accuracy, completeness or correctness of the information, opinions or conclusions contained in this announcement. To the maximum extent permitted by law, none of Arcadia, its directors, employees, advisors or agents, nor any other person, accepts any liability for any loss arising from the use of the information contained in this announcement. You are cautioned not to place undue reliance on any forward-looking statement. The forward-looking statements in this announcement reflect views held only as at the date of this announcement.

This announcement is not an offer, invitation, or recommendation to subscribe for, or purchase securities by the Company. Nor does this announcement constitute investment or financial product advice (nor tax, accounting, or legal advice) and is not intended to be used for the basis of making an investment decision. Investors should obtain their own advice before making any investment decision.









Hole_Id	WGS84_UTM33S_X	WGS84_UTM33S_Y	Elevation	End of hole	Water Level (m)
BBP01	784907	7330018	1138	52	21.8
BBP02	779145	7347699	1150	82	36.5
BBP03	782502	7338404	1143	72	28.7
BBP04	782498	7338400	1143	127	28.8
BBP05	784900	7330003	1139	109	22.0
BBP06	779156	7347724	1150	125	36.6

Table 1 – Drillhole Locations*

* Note: All holes were drilled vertically (therefore all drill azimuths are zero and dips -90°). X=Easting and Y=Southing

Table 2 – Drillhole Logging Results

	Sar	nd	Grav	vel	Base	ment
Hole_ld	From	То	From	То	From	То
BBP01	0	37	37	52		
BBP02	0	54	54	82		
BBP03	0	42	42	72		
BBP04	0	42	42	90	90	127
BBP05	0	36	36	68	68	109
BBP06	0	54	54	115	115	125

Table 3 – Grab Sample Results from Shallow Holes

Hole_ld	Depth	Highest Li ppm Value
BBP01	30	58
BBP01	47	63
BBP02	60	41
BBP02	76	52
BBP03	55	52
BBP03	68	84







Bitterwasser Section A' - B'



JORC 2012 Tables

The following Tables are provided to ensure compliance with the JORC Code (2012 Edition) requirements for the reporting of Exploration Results at the Eden pan Bitterwasser Lithium-in-Brines Project.

Section 1 Sampling Techniques and Data

Criteria	JORC Code explanation	Commentary
Sampling techniques	 Nature and quality of sampling (eg cut channels, random chips, or specific specialised industry standard measurement tools appropriate to the minerals under investigation, such as down hole gamma sondes, or handheld XRF instruments, etc). These examples should not be taken as limiting the broad meaning of sampling. Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used. Aspects of the determination of mineralisation that are Material to the Public Report. In cases where 'industry standard' work has been done this would be relatively simple (eg 'reverse circulation drilling was used to obtain 1 m samples from which 3 kg was pulverised to produce a 30 g charge for fire assay'). In other cases more explanation may be required, such as where there is coarse gold that has inherent sampling probles. Unusual commodities or mineralisation types (eg submarine nodules) may warrant disclosure of detailed information. 	 Water samples were collected using hydro sleave equipment within 3 shallow water drillholes The holes were drilled between November 2023 and January 2024 All drill holes are vertical Total of 6 samples, two per shallow holes were sampled to obtain a pre-liminary indication of the lithium content. The holes first need to be developed and pump tests need to be concluded before a sampling program could be implemented that can be used in the future for resource classification. No QA / QC samples was taken at this stage. Samples size was about 1 Liter and three subsamples from each sample was taken to be analysed
Drilling techniques	• Drill type (eg core, reverse circulation, open-hole hammer, rotary air blast, auger, Bangka, sonic, etc) and details (eg core diameter, triple or standard tube, depth of diamond tails, face-sampling bit or other type, whether core is oriented and if so, by what method, etc).	 During this phase of drilling 6 water drillholes was drilled two in the north to in the centre and two in the south of the 42km long geophysical EM anomaly, The holes were drilled about 10km on strike apart.



Criteria	JORC Code explanation	Commentary
		 Holes were drilled using Percussion Drilling with steel casing inserted to depths of c. 60m and perforated pvc casing to the end of the hole A gravel pack was inserted between the casing and sediments/gravels to ensure free-flow of brines into the casing for the purposes of test-work. PVC Casing within the Steel casing was cemented to ensure integrity of the borehole development and a bentonite layer was inserted above the perforated casing to plug the hole to ensure that brines or other water do not flow from the upper aquifer.
Drill sample recovery	 Method of recording and assessing core and chip sample recoveries and results assessed. Measures taken to maximise sample recovery and ensure representative nature of the samples. Whether a relationship exists between sample recovery and grade and whether sample bias may have occurred due to preferential loss/gain of fine/coarse material. 	 Core loss was recorded as part of the operational procedures where the core loss was calculated from the difference between actual length of core recovered and penetration depth measured as the total length of the drill string after subtracting the stick-up length. Measures taken to maximise sample recovery and ensure representative nature of the samples is not recorded in available documents. No apparent bias was noted between sample recovery and grade.
Logging	 Whether core and chip samples have been geologically and geotechnically logged to a level of detail to support appropriate Mineral Resource estimation, mining studies and metallurgical studies. Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc) photography. The total length and percentage of the relevant intersections logged. 	 All drill holes were fully logged and are qualitative. The core has been logged to a level of detail to support appropriate Mineral Resource estimation, mining studies and metallurgical studies. The main geological units logged include sand, gravel and basalt (basement).
Sub-sampling techniques and sample preparation	 If core, whether cut or sawn and whether quarter, half or all core taken. If non-core, whether riffled, tube sampled, rotary split, etc and whether sampled wet or dry. For all sample types, the nature, quality and appropriateness of the sample preparation technique. 	 The 1 Liter water sample collect at specific depth using a hydro sleave was split into three sample for analyses. The sample was flown from site to Paris France for analyses. sampling was undertaken using industry standard practices.



Criteria	JORC Code explanation	Commentary
	 Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples. Measures taken to ensure that the sampling is representative of the in-situ material collected, including for instance results for field duplicate/second-half sampling. Whether sample sizes are appropriate to the grain size of the material being sampled. 	
Quality of assay data and laboratory tests	 The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total. For geophysical tools, spectrometers, handheld XRF instruments, etc, the parameters used in determining the analysis including instrument make and model, reading times, calibrations factors applied and their derivation, etc. Nature of quality control procedures adopted (eg standards, blanks, duplicates, external laboratory checks) and whether acceptable levels of accuracy (ie lack of bias) and precision have been established. 	 The samples were analysed at mobile laboratory of an current Lithium brine companies in Paris, France. Samples was only analysed for lithium. Water was assayed at a non-accredited mobile laboratory using ICP in Paris, France (which laboratory also serves as testing station for brines from South America). No QA / QC samples was added. One have to take into account that these samples was taken before the hole was developed and any pump was undertaken on the hole and is therefore just an indication of the lithium potential of the Bitterwasser brines.
Verification of sampling and assaying	 The verification of significant intersections by either independent or alternative company personnel. The use of twinned holes. Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols. Discuss any adjustment to assay data. 	 All samples and data were verified by the project geologist. All water samples were put into plastic bottles, tagged on site as per the specific drill hole it was located in. The sample depth was estimated from the depth of the down hole hrydo sleave depth where the sample was collected. All hard copy data-capturing was completed at the sampling locality. Recording of field observations and that of samples collected was done in field notes and transferred to and electronic data base following the Standard Operational Procedures.
Location of data points	• Accuracy and quality of surveys used to locate drill holes (collar and down-hole surveys), trenches, mine workings and other locations used in Mineral Resource estimation.	 The locations of all the samples were recorded. The sample locations are GPS captured using WGS84 UTM zone 33S. The quality and accuracy of the GPS and its measurements is not



Criteria	JORC Code explanation	Commentary
	 Specification of the grid system used. Quality and adequacy of topographic control. 	known, because it is not stated in available documents.
Data spacing and distribution	 Data spacing for reporting of Exploration Results. Whether the data spacing and distribution is sufficient to establish the degree of geological and grade continuity appropriate for the Mineral Resource and Ore Reserve estimation procedure(s) and classifications applied. Whether sample compositing has been applied. 	 Two drill holes per site were located about 10 km apart onlong the strike of the 42km long geophysical EM anomaly. At each site two holes was drilled. The shallow hole targeted the water within the sand and the deeper hole targeted the water within the gravel unit. The data spacing and distribution of the drill holes and samples would not be sufficient to establish the degree of geological and grade continuity appropriate for the Mineral Resource and Ore Reserve estimation procedure(s) and classifications.
Orientation of data in relation to geological structure	 Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type. If the relationship between the drilling orientation and the orientation of key mineralised structures is considered to have introduced a sampling bias, this should be assessed and reported if material. 	 All six holes were drilled vertical. The lithium is not visible in the water ; therefore, no bias could take place when selecting the sample position. The relationship between the sampling orientation and the orientation of key mineralized structures is not considered to have introduced a sampling bias.
Sample security	• The measures taken to ensure sample security.	 Arcadia maintained strict chain-of-custody procedures during all segments of sample handling, transport and samples prepared for transport to the laboratory are bagged and labelled in a manner which prevents tampering. An export permit was obtained from the Namibian Mining Department to transport the samples across the border.
Audits or reviews	• The results of any audits or reviews of sampling techniques and data.	 Audits and reviews were limited to the Standard Operational Procedures in as far as data capturing was concerned during the sampling.



Section 2 Reporting of Exploration Results

Criteria	JORC Code explanation	Commentary
Mineral tenement and land tenure status	 Type, reference name/number, location and ownership including agreements or material issues with third parties such as joint ventures, partnerships, overriding royalties, native title interests, historical sites, wilderness or national park and environmental settings. The security of the tenure held at the time of reporting along with any known impediments to obtaining a licence to operate in the area. 	 The Bitterwasser Project area is east of Kalkrand in south central Namibia, some 190 km south of Windhoek in the Hardap Region. The Bitterwasser Lithium Project comprise of three exclusive exploration licences, EPLs 8101, 8102, 8103 & 8104 and , all held by Brines Mining & ExplorationPty) Ltd and that up for renewal. Environmental Clearance Certificates was obtained by BME for all four EPLs. A land-use agreement, including access to the property for exploration has been obtained through the Ministry of Agriculture, Water and Forestry of Namibia and the landowners.
Exploration done by other parties	Acknowledgment and appraisal of exploration by other parties.	 A regional reconnaissance investigation in the form of a systematic field survey covering the entire southern Namibia and some parts of the Northern Cape Province of South Africa was done during 2009 and 2010. The reconnaissance investigation was aimed at establishing the prospectiveness of the area that could potentially sustain economic exploitation of soda ash and lithium (Botha & Hattingh, 2017).
Geology	• Deposit type, geological setting and style of mineralisation.	 The geology os the area consist of Kalahari sand and Gravel that lay ontop of basalt basement. The presence of an active deep-seated connate/hydrothermal wate circulation network is suggested, which acts as a transport mechanism for lithium bearing brines into the overlying Gordonia Formation pan sediments. High evaporation rates (>3200 mm/year) occurring in the area are favourable for brine formation and salt-concentration.
Drill hole Information	 A summary of all information material to the understanding of the exploration results including a tabulation of the following information for all Material drill holes: easting and northing of the drill hole collar 	 Drill results are described in this announcement. All relevant data is included in this report.



Criteria	JORC Code explanation	Commentary
	 elevation or RL (Reduced Level – elevation above sea level in metres) of the drill hole collar dip and azimuth of the hole down hole length and interception depth hole length. If the exclusion of this information is justified on the basis that the information is not Material and this exclusion does not detract from the understanding of the report, the Competent Person should clearly explain why this is the case. 	
Data aggregation methods	 In reporting Exploration Results, weighting averaging techniques, maximum and/or minimum grade truncations (eg cutting of high grades) and cut-off grades are usually Material and should be stated. Where aggregate intercepts incorporate short lengths of high-grade results and longer lengths of low-grade results, the procedure used for such aggregation should be stated and some typical examples of such aggregations should be shown in detail. The assumptions used for any reporting of metal equivalent values should be clearly stated. 	• The sample would not be used for any resource estimation in the future, because a detailed sampling program would be done at each hole after the holes have been developed.
Relationship between mineralisation widths and intercept lengths	 These relationships are particularly important in the reporting of Exploration Results. If the geometry of the mineralisation with respect to the drill hole angle is known, its nature should be reported. If it is not known and only the down hole lengths are reported, there should be a clear statement to this effect (eg 'down hole length, true width not known'). 	 The drill holes were all drilled vertical, with the sand and gravel units being horizontal. The water table start around 30m to depth of 115m.
Diagrams	 Appropriate maps and sections (with scales) and tabulations of intercepts should be included for any significant discovery being reported These should include, but not be limited to a plan view of drill hole collar locations and appropriate sectional views. 	• The appropriate diagrams and tabulations are supplied in the reports referred to the announcements referenced in the footnotes.



Criteria	JORC Code explanation	Commentary
Balanced reporting	• Where comprehensive reporting of all Exploration Results is not practicable representative reporting of both low and high grades and/or widths should be practiced to avoid misleading reporting of Exploration Results.	 This report has been prepared to present the prospectivity of the project and results of historical and recent exploration activities. All the available reconnaissance work results have been reported.
Other substantive exploration data	 Other exploration data, if meaningful and material, should be reported including (but not limited to): geological observations; geophysical survey results; geochemical survey results; bulk samples – size and method of treatment; metallurgical test results; bulk density, groundwater, geotechnical and rock characteristics; potential deleterious or contaminating substances. 	 The Namibian Government conducted a regional magnetic survey in the area. The Namibian Government conducted a radiometric survey of potassium in the area. An electromagnetic (EM) survey was done by the groundwater consultancy Geoss during October 2019. An airborne TDEM survey was also conducted over the area in Oct 2022.
Further work	 The nature and scale of planned further work (eg tests for lateral extensions or depth extensions or large-scale step-out drilling). Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive. 	 The next phase would include in-fill drilling. Metallurgical test work would also be conducted on the on water to understand the potential of recovery of lithium from the brines.the clay bulk sample.