



Investor Presentation

August 2024

ASX: AM7

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#### Compliance Statement and Competent Person Statement

The Company confirms that the information in this presentation that relates to Exploration Results at the Company's projects have previously been released to the ASX inter alia in announcements dated 7 September 2021, 23 September 2021, 16 December 2021, 4 February 2022, 21 February 2022, 7 March 2022, 24 March 2022, 02 May 2022, 9 May 2022, 19 August 2022, 24 August 2022, 23 September 2022, 29 September 2022, 10 October 2022, 11 October 2022, 20 November 2023 and 5 February 2024, all of which will continue to apply and have not materially changed, and that the Company is not aware of any new information or data that materially affects the information that has been included in this presentation. The Company confirms that the form and context in which a Competent Person's findings are presented have not been materially modified from the original market announcements.

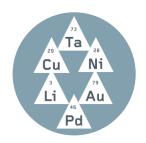
#### Mineral Resources

The Company confirms it is not aware of any new information or data that materially affects the information included in the Mineral Resource estimates of the Swanson and Bitterwasser Projects and all material assumptions and technical parameters underpinning the estimates continue to apply and have not materially changed when referring to its resource announcements respectively made for Swanson on 23 September 2021 and 06 May 2022 and for Bitterwasser on 3 November 2021 and 24 August 2022. The Company confirms that the form and context in which a Competent Person's findings are presented have not been materially modified from the original market announcements. The independent geological experts have sufficient experience which is relevant to the style of mineralisation and type of deposits under consideration and to the activities which they are 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' (the JORC Code). Further details relating to the independence of the competent persons are detailed in the aforesaid announcements.

Cautionary Statement LR 5.16.4

## A Diversified Battery-Metals Explorer





Prospect
Generators
Focusing on
"New-Era" Metals



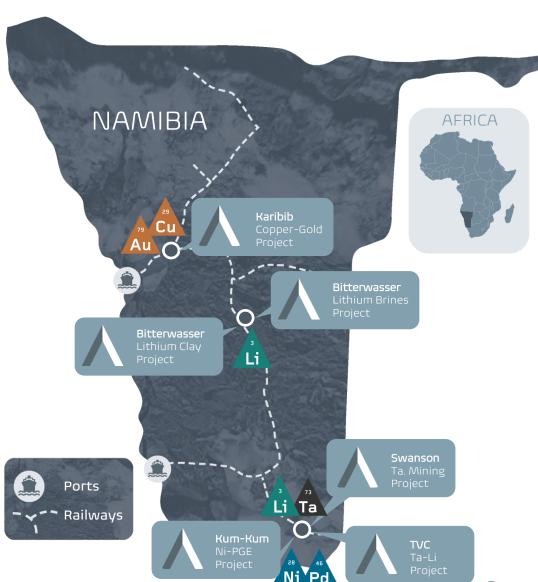
Exploration -to-Mine Philosophy



"Step-up" Value-Accretive Approach to Reduce Exploration Risk



Large Tenements with Right Geology





Proven Mine Finders



Focus on Potentially Company Transforming Assets

## Value Creation through targeted Exploration



Clear Strategy: Battery Metals Explorer

Swanson Mine: Funded to Commissioning (c. Q3/25). Under Construction. Cash Generator.

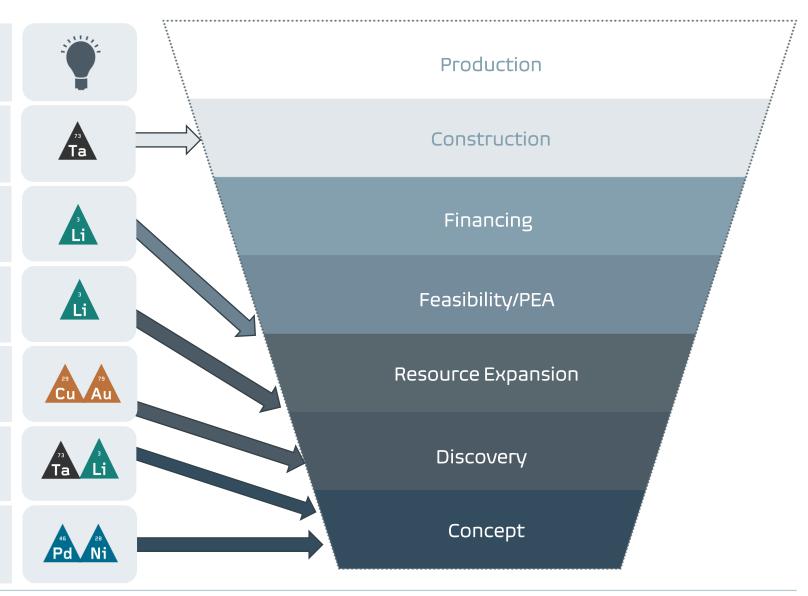
**Bitterwasser Li Clay Project:** Growing MR, Indicative Positive Processing Results, PEA planned over Eden Pan

Bitterwasser Li Brines Project: Drilling completed. Basin depth 120m. Grab Sampling indicates increasing grade to depth. Results expected March 24.

**Cu-Au Project:** 25km x 2km Structural Feature with Mineralisation

TVC Ta-Li Project: +200 Pegmatites under investigation in fertile Ta-Li Geological Terrain

Ni-PGE Project: Mafic and Ultra-Mafic Stratiform Ni-Cu-PGE Disseminated Sulphide 'reef' Horizon with Mineralisation



## Executive Directors & Management



Jurie Wessels	Philip Le Roux	Daniël Ellis	Lisias Pius	Dr. Ismael Kangueehi
<b>Executive Chairman</b> Based in South Africa	<b>Chief Executive Officer</b> Based in Namibia	<b>CFO</b> Based in South Africa	<b>Country Manager</b> Based in Namibia	<b>Geologist</b> Based in Namibia
Jurie has 27 years' experience in the exploration industry and cofounded a number of exploration and mining companies, including Bauba Resources Ltd (BAU.J), which owns two operating chrome mines, GoldStone Resources Ltd (GRL.L), which company is mining the Homase-Akrokerri Gold Deposit in Ghana acquired and developed by GoldStone when Jurie was CEO, and Vanadium Resources Ltd that owns a tier 1 Vanadium Project undergoing fund raising for construction.  Jurie has significant experience in the sourcing and assessment of exploration and exploitation projects and in the governance, funding and management of resource companies. He explored for various minerals in Africa, South America, the Indian subcontinent and Europe.	Philip has 30 years' experience in exploration, mining and economic geology, with extensive exposure in different geological terrains worldwide. He commenced his career as a Mine Geologist for Gencor Limited, then became a Mining Analyst for the Industrial Development Corporation of South Africa and operated as an independent consultant to several junior and mid-tier mining companies. Philip has progressed numerous projects from greenfields to feasibility and into production. Philip was responsible for progressing the projects that are the subject of the acquisitions by Arcadia from a technical point of view. Philip is member of the Geological Society of South Africa and registered member of Pri. Sci. Nat. (SACNASP) and holds an Honours Degree in Geology from the University of Stellenbosch.	Daniël is a practising Professional Accountant in Cape Town, South Africa and has 24 years' experience in the accounting industry. During the last nine years Daniël acted as accountant for a number of publicly listed companies, including AIM listed GoldStone Resources Ltd and ASX listed Vanadium Resources Ltd (ASX:VR8). Daniël holds B Acc and B Compt (Hons) degrees.	Lisias is an entrepreneur and businessman. He is a founding shareholder of ORP, Karibib and BME and is a Namibian resident. Lisias has business interests in farming and minerals exploration while. Lisias holds a B.Comp.Sc (Hons) Digital Forensics and B.Comp.Sc Degree in Systems Administration & Networks.	Ismael holds a Ph.D degree in Environmental Geochemistry from the University of Stellenbosch, having completed his Masters in Geology and B. Sc. (Hons) from the same institution. He completed his undergraduate degree from the University of Namibia, majoring in geology and environmental biology. He has vast experience in the management of base metal exploration and environmental geochemistry projects in Namibia and South Africa. Ismael is in the process of registering as a member of the Geological Society of Namibia and as a Pri. Sci. Nat. (SACNASP) geologist.

### Non-Executive Board



#### Michael Davy

### **Independent**Based in Australia

Michael is an Australian Executive and Accountant with over 18 years' experience across a range of industries. Michael is currently a director and owner of numerous successful private businesses. During the past five years Michael has held directorships in several ASX listed companies and is currently the Non-Executive Chairman of Raiden Resources Limited (ASX: RDN), Non-Executive Chairman of Haranga Resources Limited (ASX: HAR) and a Non-Executive Director of Vanadium Resources Limited (ASX:VR8).

#### Andrew Law

### **Independent**Based in Australia

Andrew is a Mining Engineer with over 35 years' experience. He has extensive technical and management experience ranging from deep level underground mining environments to large open pit environments. Andrew fulfilled executive roles at Anglo American, Plutonic Resources, Downer Group, Placer Dome, Mundo Minerals and Optiro Limited. Until recently, Andrew was the Executive Director – Projects at Relentless Resources Limited.

#### Johan le Roux

### **Non-Independent**Based in South Africa

Johan is a business development executive with an accounting background. For the past 12 years, he has been the Business Development Manager of SPH Kundalila (Pty) Ltd, a leading mining services provider that is a wholly owned subsidiary of JSE-listed Raubex Group Limited. Johan holds a Bachelor of Commerce degree from Stellenbosch University and a Master of Business Administration from the University of Stellenbosch Business School.





### Swanson Tantalum Mine



#### **HIGHLIGHTS**

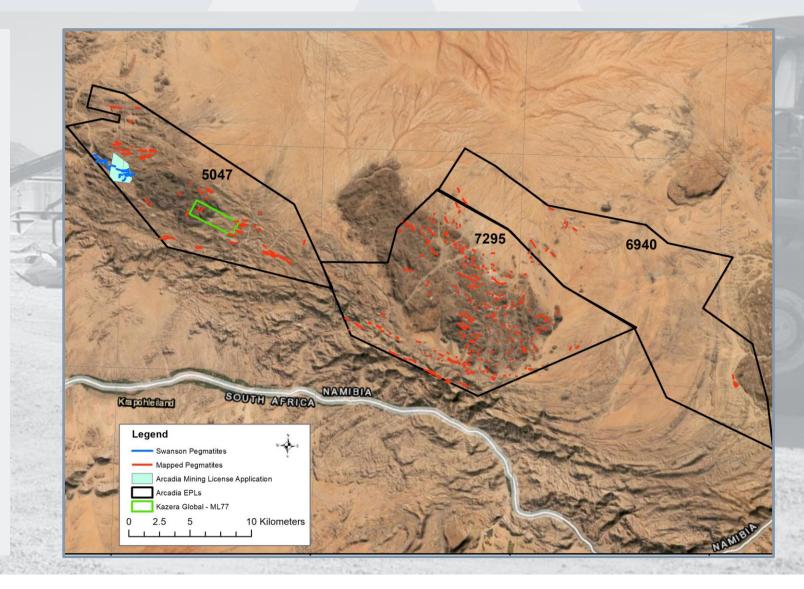
Fully Permitted, Land Use, Water Supply and Electricity Secured

Funded to Commissioning: to a min. spend of US\$7M in return for 38% in the project

Projected Annual Free Cash Flows: Au\$6.4m

10 Pegmatites Drilled (at Swanson) for Mineral Resource of 2,582Mt @ 486ppm

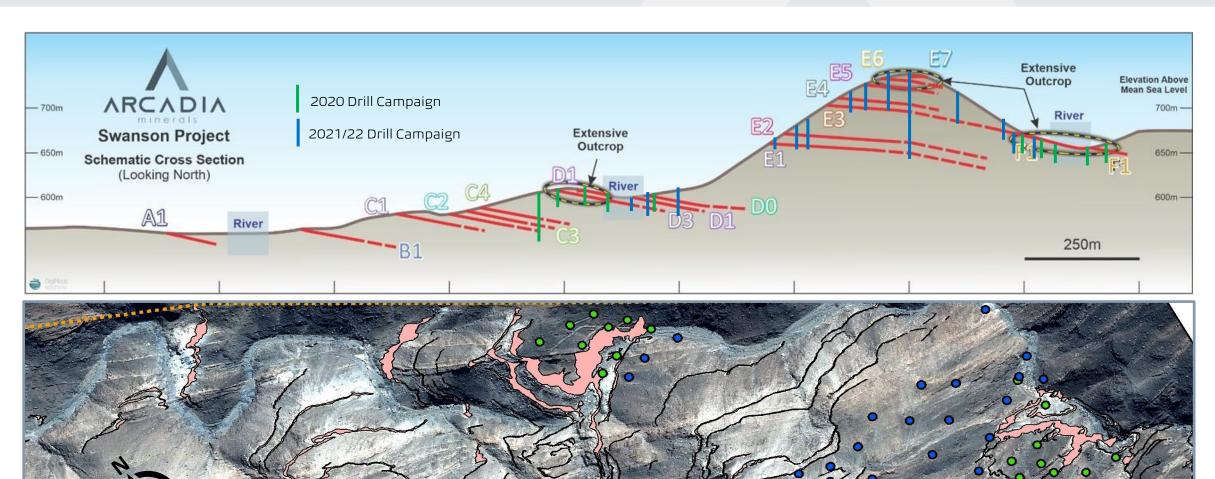
Tantalite: Semi-conductors, Capacitors, Turbine Blades, Medical Prostheses





## Swanson Long Section

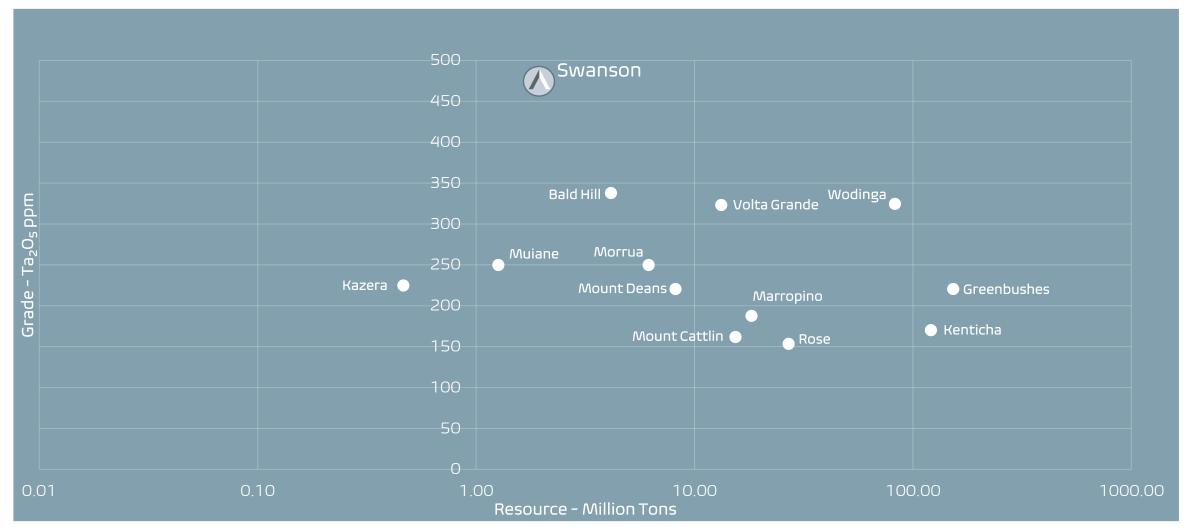






## Global Ta<sub>2</sub>O<sub>5</sub> Deposits: Mineral Resources & In-Situ Grades





**Sources and cautionary note:** The above chart compares global Tantalum Mineral Resources and in situ grades reported in different Mineral Resource categories under differing codes, and references projects at varying stages of development, some of which are in production and/or don't primarily focus on Tantalum production but as a by-product of commercial value at varying quality and product grades. Information of Mineral Resources with a quoted Tantalum in situ grade derived from public information have been used and all relevant information to enable an informed and balanced view is referenced in the annexure titled "Ta2O5 Peer Comparison Table".



### Bitterwasser Lithium Basin



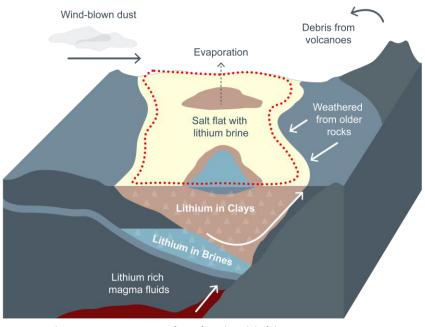
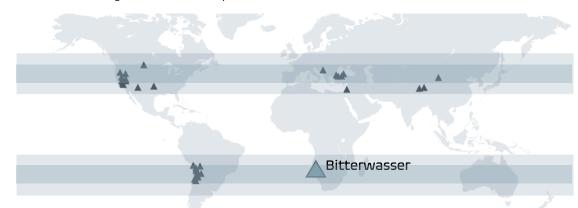


Figure: Schematic artist impression of an inferred model of the Bitterwasser Basin



World Lithium Brine Deposits

# FIRST ORDER REQUIREMENTS FOR LITHIUM BRINE DEPOSITS

Old, Deep, Closed-Basin and Aquifers



Lithium Clay Deposits



Lithium Sourced from Basement Rocks and Geothermal Activity



Arid Climate in the "Lithium-Latitudes"



Saline water with high Boron and Potassium content



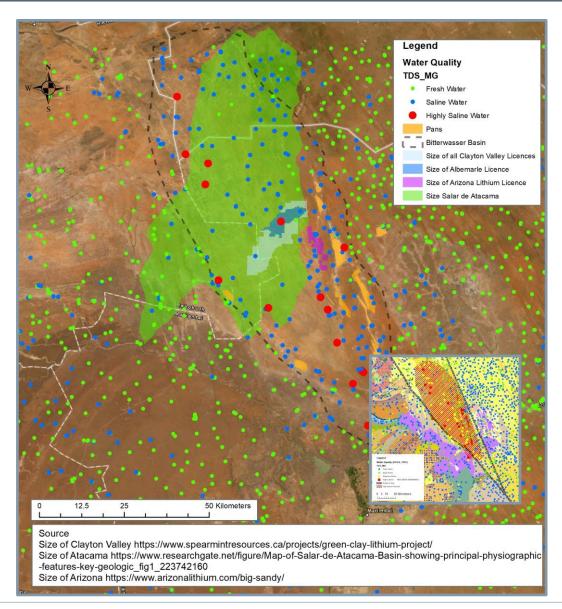
Lithium Brine Deposits (grades outstanding)

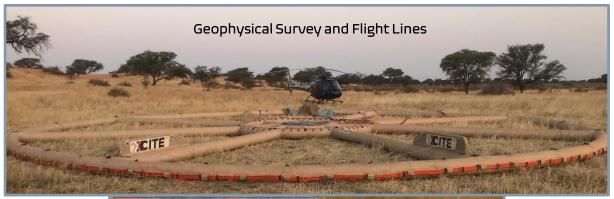


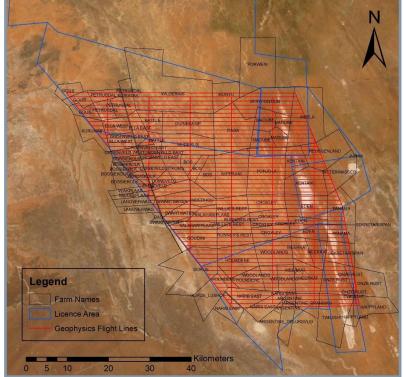


### Bitterwasser Lithium in Brines





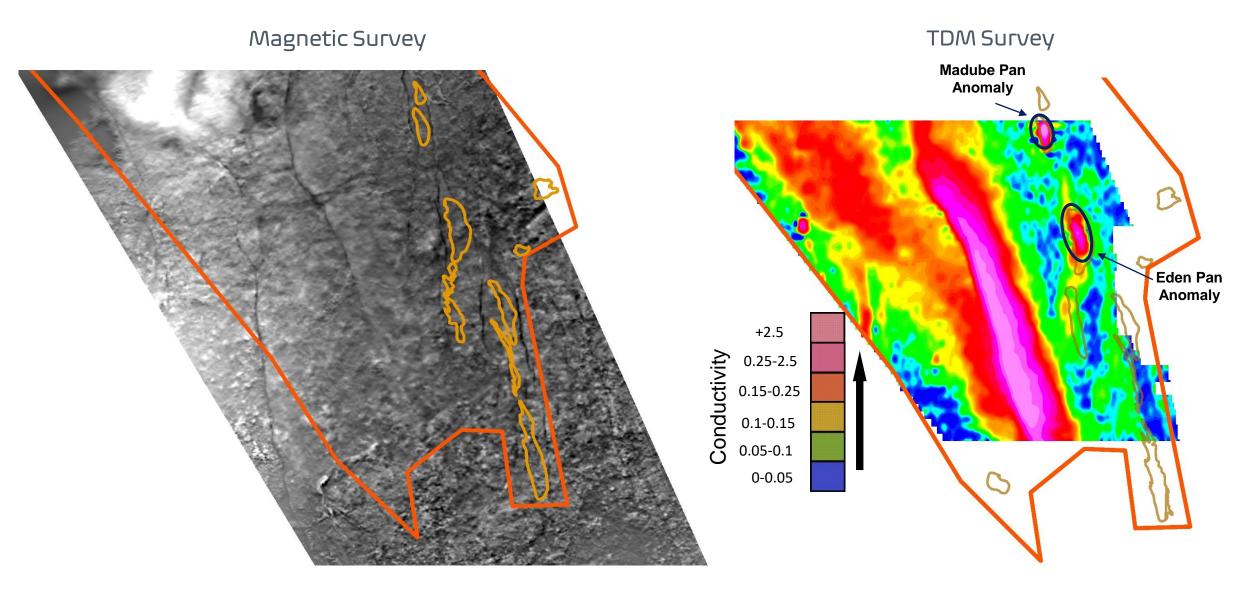






## Bitterwasser Brines Geophysical Results

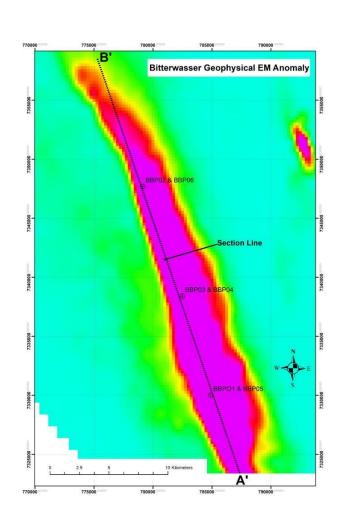




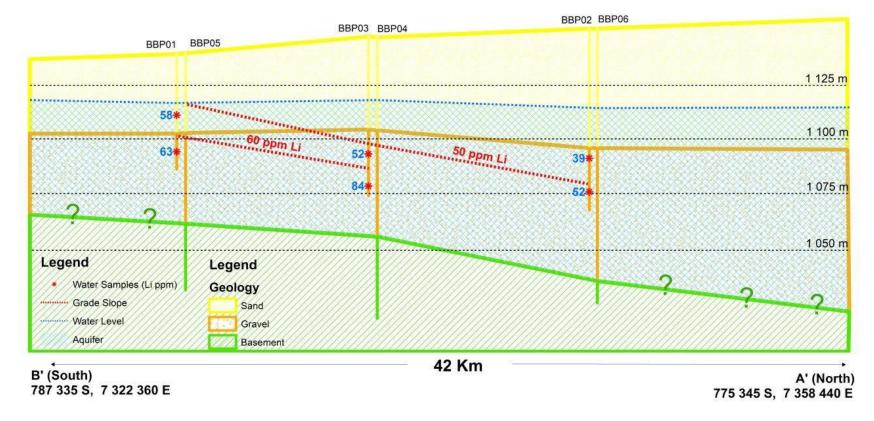


## Bitterwasser Brines Drilling





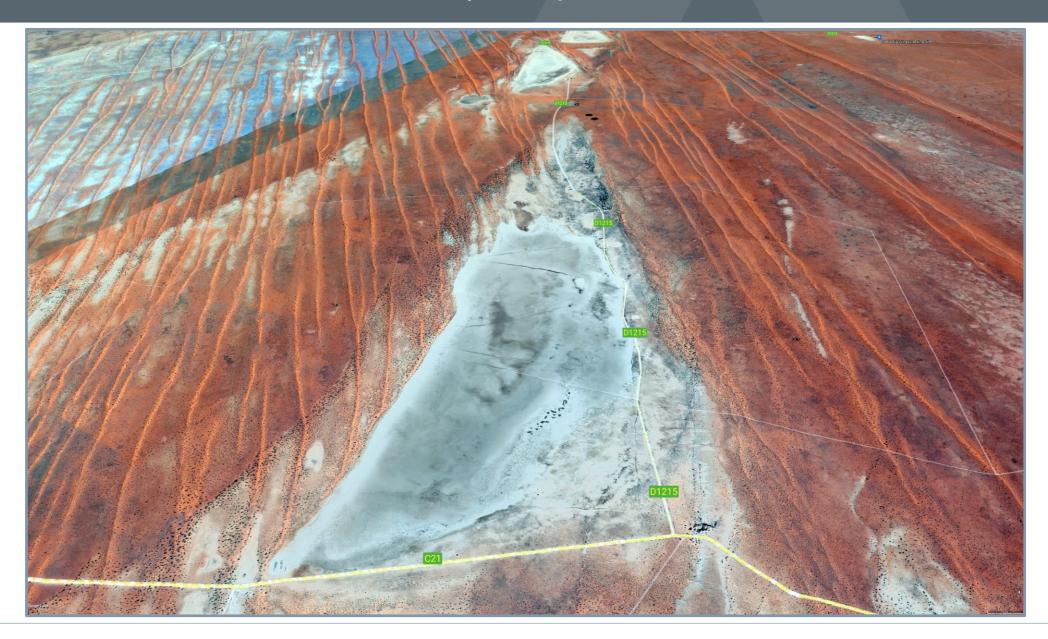
#### Bitterwasser Section A' - B'





# Bitterwasser Lithium Clays Exploration







### Bitterwasser Lithium Clays Exploration & Resource



#### Eden Pan BMB03 Stratigraphy compared LBGSC IRGSC MGPC MGPC GGPC Pans Eden Madube Lithology Description erev-white dried & crumbly t brown-grey sandy cla plastic clay" ttled (transitional) gre green fine plastic clay'

MSC

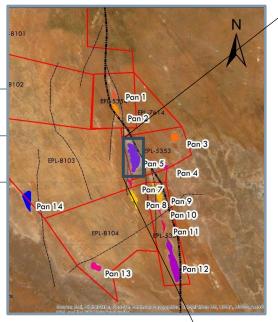
#### **GROWING Li-Clay** MINERAL RESOURCE

Five Pan districts in Southern Africa Investigated

Pan 2 and Pan 5: Mineral Resource Declared

Pan 1: Stryfontein Pan is

Mineralised at surface Further Drilling to Occur at other pans to possibly increase Li-Clay Mineral Resource



Pan 5 - Eden Pan: Mineral Resource of 287 kt of LCE

Pan 2 - Madube Pan: Mineral Resource of 40,3ktons of LCE

Eden Pan: Mineralisation from Surface to c.12m with Middle Green Clay Unit (MU) as Dominant Lithological Unit

Madube Pan: Mineralisation from Surface to c.18m with Middle Green Clay Unit (MU) as Dominant Lithological Unit

Overall Mineral Resources at Clay Project (Eden and Madube)

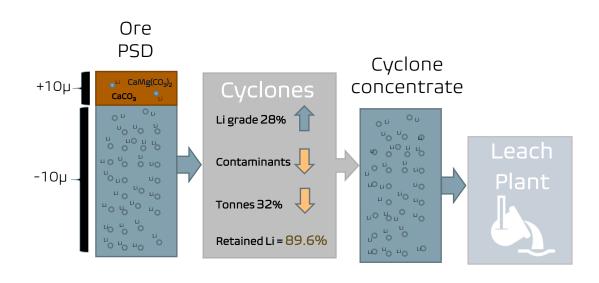
327,284 LCE tons (sufficient for 5.5 million EV's)

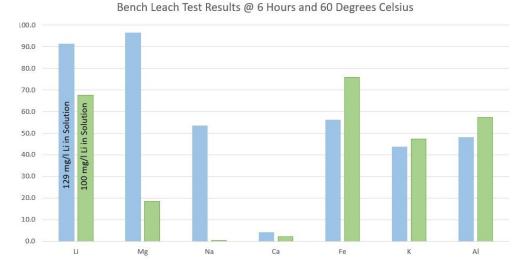




### Bitterwasser Lithium Clays Processing







Sulphuric Acid Organic Acid

#### **METALLURGY & PROCESSING**



Conducive Clays for Extraction (Montmorillonite)



+80% Recoveries Using Organic Acid & +90% using Sulphuric Acid



+85 % Li <10μ particles, 78 % ore <10μ Result: grade 28% @ 89.6% recovery



Organic Acid recovers only 10%-20% of Contaminants (Mg and Ca)



## Bitterwasser Lithium Clays Comparison



	ARCADIA	NORAM LITHIUM	CENTURY LITHIUM	BRADDA HEAD	ARIZONA LITHIUM
	(ASX: AM7)	(NRM.CVE)^	(CYP.CVE)^	(BHL.LON)^^	(ASX: AZL)
Resource in tonnes	85.2 Mt	363Mt	1,304Mt	42,6Mt	32,5Mt
Resource Classification	Inferred	Meas. and Ind.	Indicated	Inferred	Indicated and Inferred
Cut-off	500ppm	400ppm	400ppm	400ppm	800ppm
Stage of Development	Resource	Pre-PEA	PFS	-	Resource Expansion
Average. Grade	633ppm	923ppm	904ppm	818ppm	1850ppm
Att. Interest	50%	100%	100%	Unknown	Unknown
Market Cap (as at 14 October 2022) ^CAD/AUD: 1.16 ^^GBP/AUD: 1.8	Au\$24.8M	Au\$49.41M	Au\$207.61M	Au\$60.8M	Au\$185.6M
Tenement Package	403,100 Ha	1,133 Ha	2,197 Ha	4,200 Ha	2,500 Ha
Brine Potential	To be determined	1.6km from Albermarle Corp's Silver Peak Brine operations.	Next to Pure Energy and Albermarle Lithium-in-Brine operations	To be determined	To be determined

The above table compares companies focussed on lithium exploration and compares companies with Mineral Resource at different stages of exploration development and diverse Mineral Resource classifications reported under distinct Mineral Resource Reporting Codes. The information tabled regarding to Mineral Resource tonnes, Classification, Cut-Off, Stage of Development, Av. Grade, Att. Interest, Tenement size and potential for Lithium Brine Mineralsation have been gleaned from the most recent public information available from the peers the Company compares itself. The following public information is referenced:

Arizona Lithium: https://www.arizonalithium.com/big-sandy/

Braddahead https://www.braddaheadltd.com/projects/arizona-clays/

Cypress Development https://cypressdevelopmentcorp.com/projects/nevada/technical-reports/

Noram Lithium https://noramlithiumcorp.com/resource/clayton-valley/





### Kum-Kum Ni-Pd Project





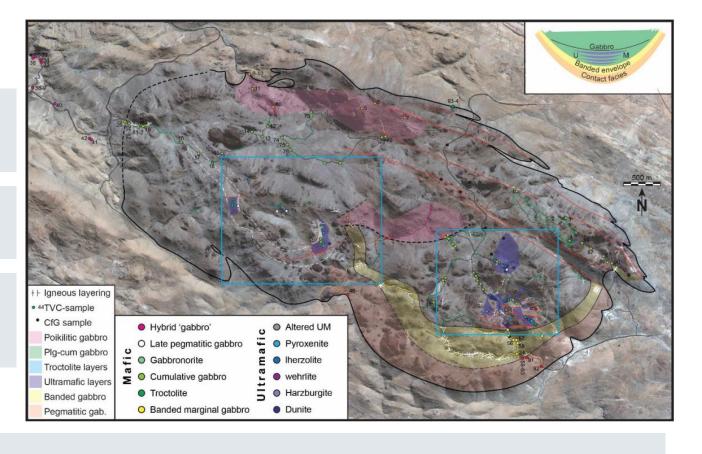
Two under-explored layered **mafic complexes** has been identified by the mineral systems investigation



Best historical (1972-'76) intersections 16m @ 0.65% Ni & 0.16% Cu 6m @ 0.61% Ni & 0.3% Cu



Historical results **untested for PGE's**Sample analysis confirms PGE presence.
Likely a **Polymetallic Deposit** (Ni, Cu, Au and PGE's)





Analyses of Historical Core
Best results:
0.28% Cu, 0.71% Ni, 0.84 g/t Pd, 0.4 g/t Pt
0.3% Cu, 0.58% Ni, 0.69 g/t Pd, 0.31 g/t Pt. 0.26 g/t Au.

"The presence of primary magmatic sulphides within the mineralised pyroxenite emphasises that sulphide immiscibility has occurred somewhere within the stratigraphy of the TVC and that a stratiform Ni-Cu-PGE disseminated sulphide 'reef' horizon could exist somewhere in the TVC." Geological Overview and Sulphide Mineralisation Potential of the Tantalite Valley Complex. Report by Martin Klausen, Bjorn von der Heyden, Daniel Ferreira of the University of Stellenbosch



## Karibib Copper Gold Project



#### Known Deposits in the Karibib Gold Field

Navachab Mine - 8 Moz Au

Twin Hills Project- +2 Moz Au

**Prospectivity** - 25km x 2km metasedimentary structure defined

Similar geology to Navachab and Twin Hills

Historical small-scale mines at extremities of 25km Geophysical Feature

#### Two types of Mineralization

Skarn-type mineralization (44 grab samples over 20km)

Av. 4.32 % Cu (highest 28.40% Cu), Av. 1.49 g/t Au (highest 7.65 g/t Au)

Vein-type mineralization (13 grab samples over 20km)

Av. 1.94% Cu (highest 5.69% Cu), Av.2.06 g/t Au (highest 26.30 g/t Au)

#### Initial drilling program completed

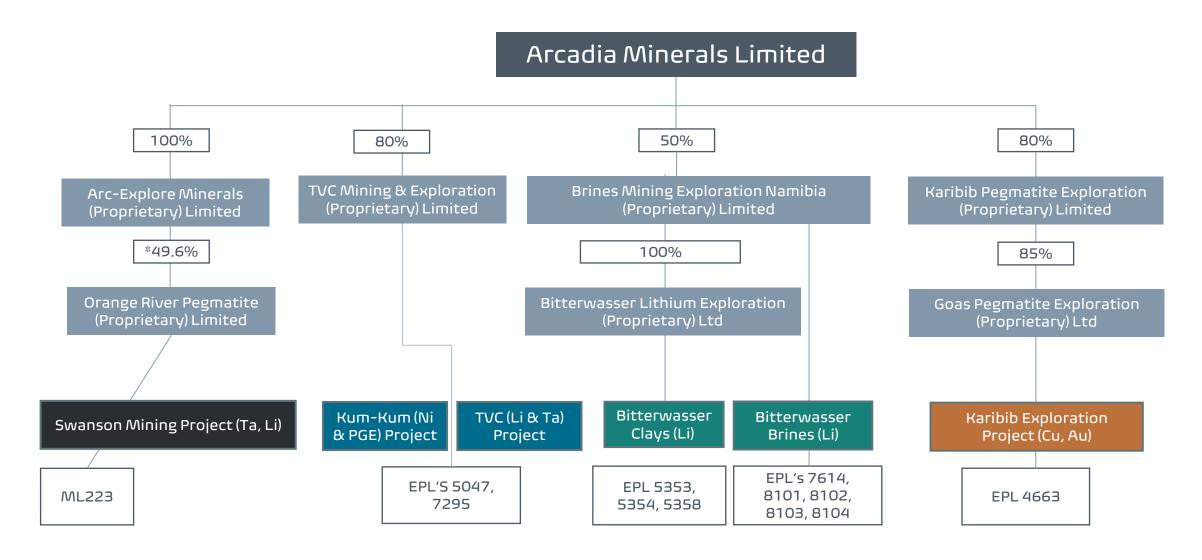
KRCO3 from 24m to 28m, width of 4m @ 1.35% Cu & 0.68 g/t Au KRCO8 from 9 to 13 m, width of 4m @ 1.98% Cu & 0.92g/t Au & 0.72% W





### Corporate Structure





# Ta<sub>2</sub>O<sub>5</sub> Peer Comparison Table



Company	Deposit	Primary Element	Resource Category	Development Stage	Resource Mt	Ta2O5 ppm	Information Source
Arcadia Minerals Limited	Swanson	Tantalum	Indicated & Inferred	Exploration	2.584	486	https://www.arcadiaminerals.global/wp-content/uploads/2022/02/61077892.pdf
Alliance Mineral Assets	Bald Hill	Lithium	Measured & Indicated	Production	4.40	336	https://www.boadicea.net.au/projects/eastern-goldfields/bald-hill-projects/
Global Advanced Metals	Wodgina	Lithium	Measured & Indicated	Production	86.50	320	http://clients3.weblink.com.au/pdf/MIN/02037855.pdf
Advanced Metallurgical Group	Volta Grande	Tantalum	Measured & Indicated	Production	14.7	318	https://amg-nv.com/news/amg-advanced-metallurgical-group-n-v-announces-tantalum-mineral-resources-update-volte-grande-mine/
Noventa	Моггиа	Tantalum	Measured & Indicated	Production	7.77	248	https://www.investegate.co.uk/ArticlePrint.aspx?id=201010190700115939U
Global Advanced Metals	Greenbushes	Lithium	Measured & Indicated	Production	135.10	220	https://www.igo.com.au/site/PDF/4c55e99a-9216-420d-8223- 3fb28e838ff2/IGOinvestsinGlobalLithiumJVwithTianqi
Aruma Resources Limited	Mount Deans	Lithium	Indicated & Inferred	Exploration	9.10	220	https://www.arumaresources.com/wp-content/uploads/2021/08/Update-on-Plans-for-Drilling-at-Mt-Deans-Lithium-Project.pdf
Kazera Resources	Каzега	Tantalum	Indicated & Inferred	Restarting	0.62	219	https://kazeraglobal.com/investments/tantalite-valley-drilling-reports/
Noventa	Marropino	Tantalum	Measured & Indicated	Production	21.70	190	https://www2.deloitte.com/content/dam/Deloitte/za/Documents/energy- resources/ZA_Mozambican_Cue_Card_221015.pdf
Ethiopian Mineral Petroleum and Bio- fuel Corporation	Kenticha	Tantalum	Reserve	Care & Maintenance	116.40	170	https://medcraveonline.com/MSEIJ/MSEIJ-02-00076.pdf
Galaxy Resources	Mount Cattlin	Lithium	Measured & Indicated	Production	17.16	155	https://wcsecure.weblink.com.au/pdf/GXY/02381236.pdf
Critical Metals	Rose	Lithium	Indicated & Inferred	Pre-Feasibility	31.90	148	https://www.cecorp.ca/wp-content/uploads/2020-05-11-news-release-CRE.pdf

### **JORC Mineral Resource Statements**



#### Swanson Tantalum Project

Cllassification	Pegmatite	Mass (kt)	Ta <sub>2</sub> O <sub>5</sub> ppm	Nb₂O₅ ppm	Li₂O %	Ta <sub>2</sub> O <sub>5</sub> tonnes
Indicated	Total D	568	365	87	0.270	207
	Total EF	577	578	65	0.070	334
	Subtotal	1,145	472	76	0.169	541
Inferred	Total D	444	365	79	0.340	162
	Total EF	995	557	69	0.050	554
	Subtotal	1,439	498	72	0.139	716
	TOTAL	2,584				
Comparison to Septe						
Indicated Sept 2021	Total	664	431	76	0.280	286
Inferred Sept 2021	Total	544	389	75	0.300	212

#### Bitterwasser Lithium Clay Project

Stratigraphic		Average	Value	Material Content		
Unit	Tonnes	Li (ppm)	K%	Li (t)	LCE (t)	
Upper	28 192 877	557	1.54	15 699	83 566	
Middle	70 672 141	648	1.78	45 786	243 719	
Total	98 865 018	622	1.71	61 485	327 285	

The Company confirms it is not aware of any new information or data that materially affects the information included in the Mineral Resource estimates of the Swanson and Bitterwasser Projects and all material assumptions and technical parameters underpinning the estimate continue to apply and have not materially changed when referring to its resource announcements respectively made on 23 September 2021, 3 November 2021, and the updated Mineral Resource Statement for the Swanson Project in May 2022. The Company also confirms that the form and context in which a Competent Person's findings are presented have not been materially modified from the original market announcements.

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