ARCADIA minerals

JORC MINERAL RESOURCE AT SWANSON TANTALUM PROJECT DOUBLES IN SIZE

HIGHLIGHTS

- Revision of September 2021 Mineral Resource delivers a new estimate including a total indicated and inferred resource of **2.59*Mt*** (an increase of **115%**) at an average grade of **486 ppm** Ta_2O_5 (an increase **of 17.9%**), 73 ppm Nb_2O_5 and 0.15 % Li_2O.
- Total in situ **metal content of 1,257 tonnes** (represents an increase of **154%**)
- Mineral Resource Categorisation:
  - Indicated Resource: 1,439Mt at an average grade of 498 ppm Ta_2O_5, 72 ppm Nb_2O_5 and 0.14 % Li_2O,
  - Inferred Resource: 1,145Mt at an average grade of 472 ppm Ta_2O_5, 75 ppm Nb_2O_5 and 0.17 % Li_2O
- To date only 15 of the more than **200 known pegmatites** present over Arcadia's three licenses have been explored.
- Mineral Resource Estimate conducted over 10 (of 15) outcropping open-castable shallow pegmatites located at Swanson, namely the D0, D1, D2, E2, E3, E4, E6, E7, E8 and F1.
- Public domain information from 11 Tantalum operations from around the world were used to benchmark the Swanson project against other Tantalum projects. The weighted average grade of these 11 deposits is 233 ppm Ta_2O_5, indicating that the **Swanson Project grades are significantly above its global peer group** and of the highest grades in the world.
- The Mineral Resource Estimate is to form the basis of a **feasibility study** currently underway (expected to be completed in September 2022).
- Mineral Resource is based on an exploration program that includes:
  - 283 channel / chip samples and
  - 52 diamond boreholes on a 50m grid spacing

ARBN 646 114 749

LOCAL AGENT OFFICE
Suite 7, 63 Shepperton Road, Victoria Park, WA, 6100

GUERNSEY
Oak House, Hirzel Street, St Peter Port GY1 3RH

Arcadia Minerals Limited (ASX:AM7, FRA:8OH), the diversified exploration company targeting a suite of projects aimed at Tantalum, Lithium, Nickel, Copper and Gold in Namibia, is pleased to announce that Snowden Optiro has provided the Company with an Independent Geological Report titled "*Report for Orange River Pegmatite Geology and Resource Estimation of the D, E and F Pegmatites, Project Number JB018308, May 2022*"[1] which consist of a revision of a Mineral Resource Estimate, announced by the Company on 23 September 2021[2], for the Company's 80% owned Swanson Tantalum exploration project situated in Tantalite Valley, Namibia.

Philip le Roux, the CEO of Arcadia stated: *"When the company commenced the phase 2 drilling program at Swanson the primary objective was to increase the previous JORC resource of 1,214Mt @ 412 ppm* Ta_2O_5 *we set out to increase the resource to more than 2.5 million tonnes. It is very pleasing to announce that we've achieved this goal and more, by attaining an 18% higher grade than what was reported under the maiden Mineral Resource published in September 2021. The results bode well for the Company's upcoming feasibility study, which is already underway with an outcome expected by September 2022."*

Jurie Wessels, the Executive Chairman of Arcadia stated: *"With this impressive result our priority for the Swanson project has progressed towards the feasibility study, with the aim to demonstrate that the production of a 25%* Ta_2O_5 *concentrate is feasible and to prove that Swanson will become the cash generator we envisioned it to be for Arcadia. Additionally, we'll aim to explore the abundant pegmatite swarms scattered throughout our licenses in Tantalite Valley to possibly replicate the resources we discovered at Swanson and thereby increase more value for our shareholders."*

Revised Mineral Resource Estimate

Through its 80% owned subsidiary Orange River Pegmatite (Pty) Ltd ("ORP") Arcadia owns the exploration rights to three EPL's (5047, 6940 and 7295). The total amount of pegmatites mapped by the South African Council of Geoscience over the three ORP EPL's amount to more than 200 pegmatites (see Figure 1). All indications are that the same mineralisation model present in the 15 pegmatites explored to date at Swanson could be applicable to these pegmatites.

Fifteen individual pegmatite bodies > 1 m thickness within the Swanson Pegmatite Swarm were identified as high priority and were then targeted for mapping, sampling and drilling. This area was delineated, and a high-resolution drone survey was undertaken to assist with the planning of the exploration program. The pegmatite units were clustered and named "A" to "F" in a west to east direction as shown in Figure 2.

[1] Independent Geological Report for Orange River Pegmatite (Pty) Ltd by Snowden Optiro "*Report for Orange River Pegmatite Geology and Resource Estimation of the D, E and F Pegmatites, Project Number JB018308, May 2022*", which report will be available on the Company's website at www.arcadiaminerals.global.

[2] Refer to Asx Announcement dated 23 September 2021 styled "*Maiden JORC Resource at Swanson*"

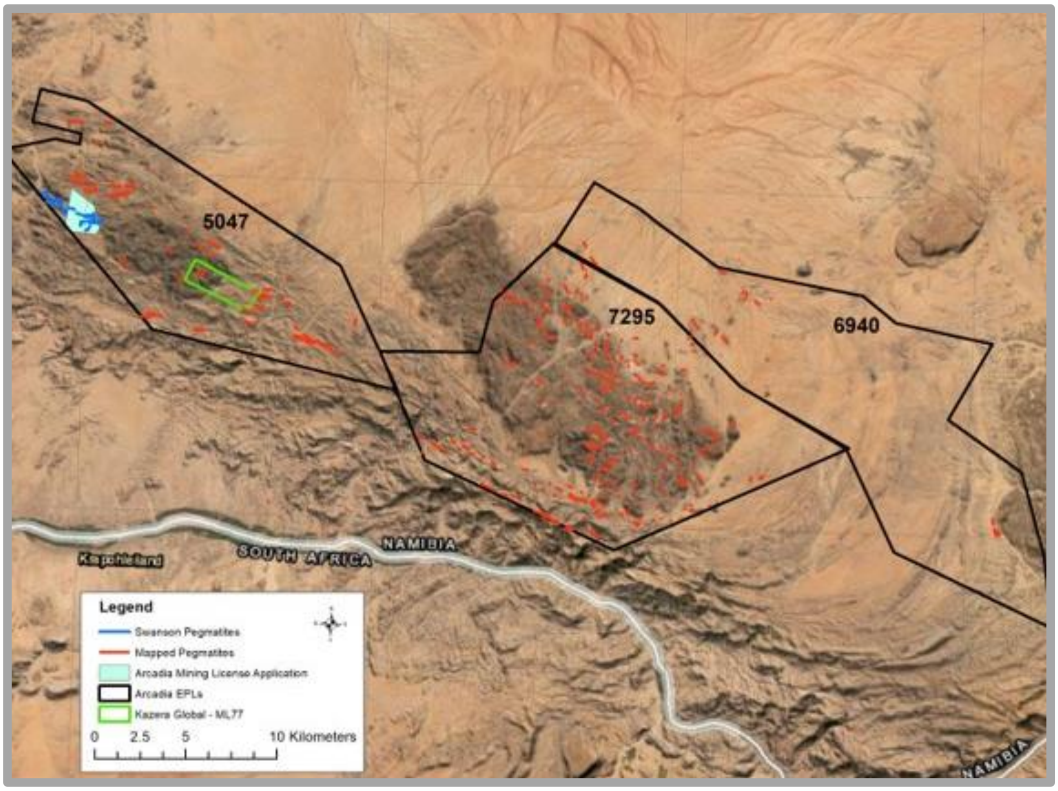

Figure 1: Location of mapped pegmatites over 3 EPL's

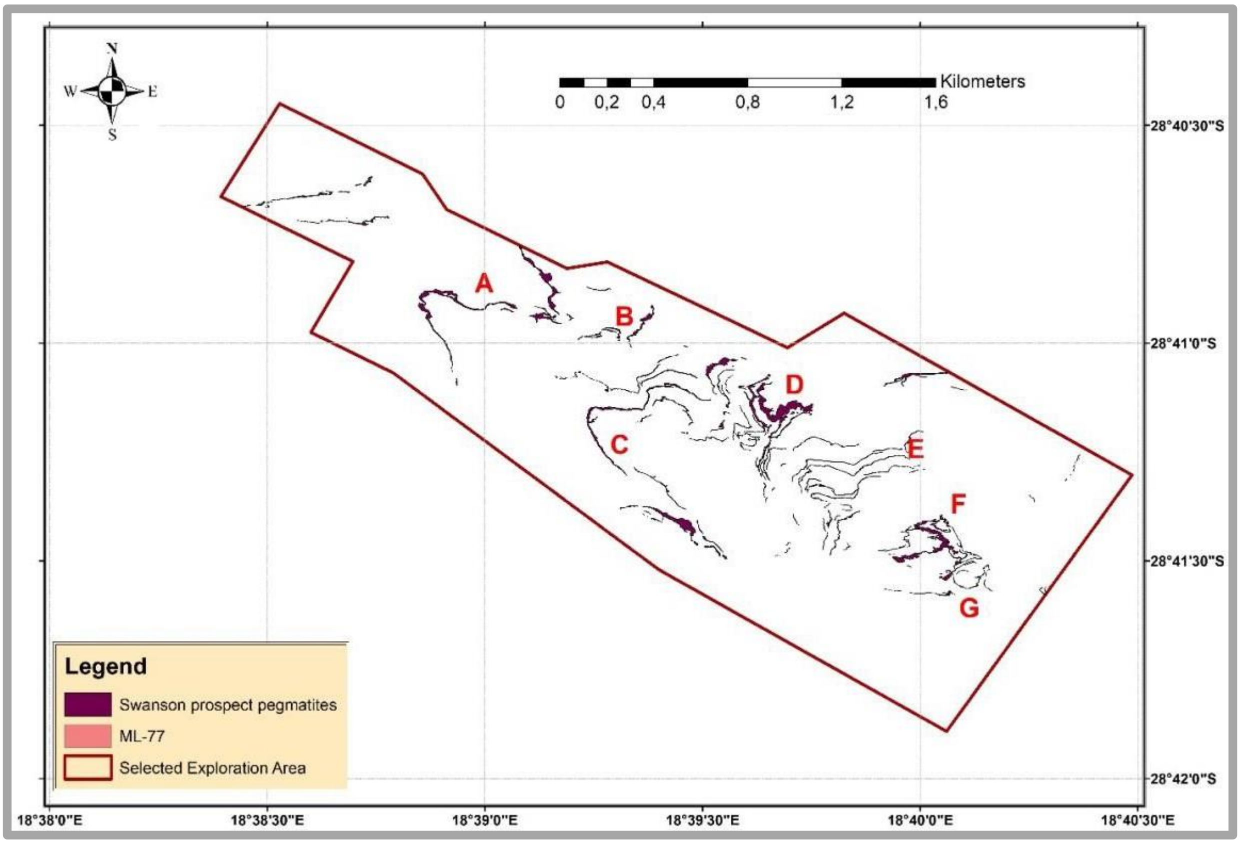

Figure 2: Swanson Pegmatite Swarm area targeted for the exploration campaign

A total of 283 samples (204 channel and 79 chip) were taken at all pegmatites. The resources in this report were focused on the analysis of the outcropping and shallow resources of the D, E and F pegmatite clusters (Figure 2).

ORP’s first drilling phase of 23 vertical diamond drill holes comprising 349.85 m of HQ (63.5 mm core) commenced in June 2020 and was completed in August 2020. The holes were drilled at two locations targeting three pegmatites (D1, D2 and F1) with drilling sections spaced 50 m apart with a 50 m strike spacing on drill lines.

Most of the 23 diamond holes drilled during Phase 1 intersected the target pegmatite bodies, with only one hole at F1 that was drilled as a confirmation hole, which did not intersect a pegmatite body and another that stopped short of the D2 body due to excessive water loss.

A total of 112 samples based on lithological logging of the pegmatite core were taken. The whole pegmatite intersection was used for thickness and grade calculations.

From August 2021 to January 2022, twenty-nine additional diamond drill holes were drilled at the Swanson Deposit with a combined depth of 1,219.07 m. Twenty-six of these holes were drilled in the E Area, between the D Area to the northwest and the F Area to the southeast. The other three holes were drilled on the down-dip side of the D Pegmatites, to better delineate their sub-surface extension.

All diamond holes drilled during this campaign were vertically oriented, with HQ (63.5 mm) core diameters. Drilling was not conducted on a regular grid but drill spacing was in the order of 50 to 70 m. Only three holes were drilled deeper than 60 m (92.52 m, 121.04 m and 134.81 m, respectively). The average depth of the rest of the holes was 33.49 m, and mainly targeted the upper E pegmatites, as well as the F1 Pegmatite.

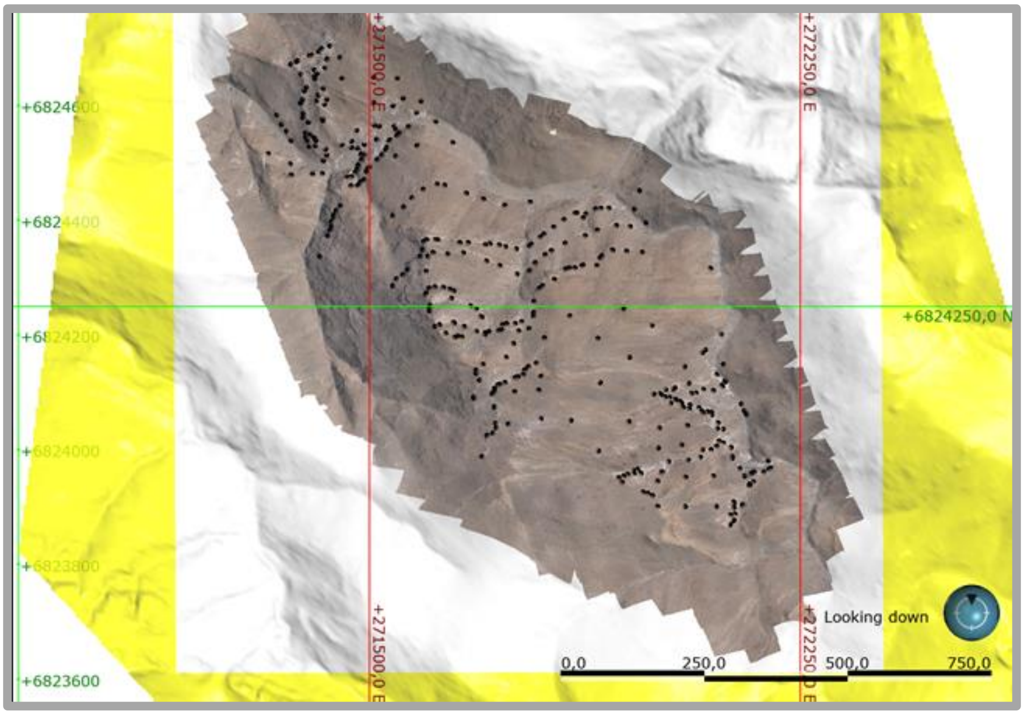

Figure 3: Project area topography showing sample / drillhole positions used for estimation

A total of 130 samples based on lithological logging of the pegmatite core were taken. The whole pegmatite intersection was used for thickness and grade calculations. Refer to Appendix 1 for details and grade Intersection for each drillhole.

A total of 860 core samples (average 30cm in length), 213 from 2020 campaign and 647 from the 2021 campaign was determined using the Archimedes principle and was also used during the resource modelling. The 208 pegmatite core samples yielded an average density of 2.64 g/cc, while the 596 waste samples yielded an average of 2.91 g/cc

Geological interpretation and modelling

Geological interpretation of the Swanson pegmatite deposit during the modelling phase agrees with the general emplacement history and method. Locally, host rocks to the pegmatite intrusions comprise greenschist facies basic amygdaloidal lavas, phyllites and chlorite schists, with interbedded felsic volcano-sedimentary units. Other intrusions, ranging in composition from acidic dykes to diorites are also present in the area, and locally follow the PSZ strike of 120° northeast. A mylonitic shear zone with this same orientation forms the northern boundary of the pegmatites investigated.

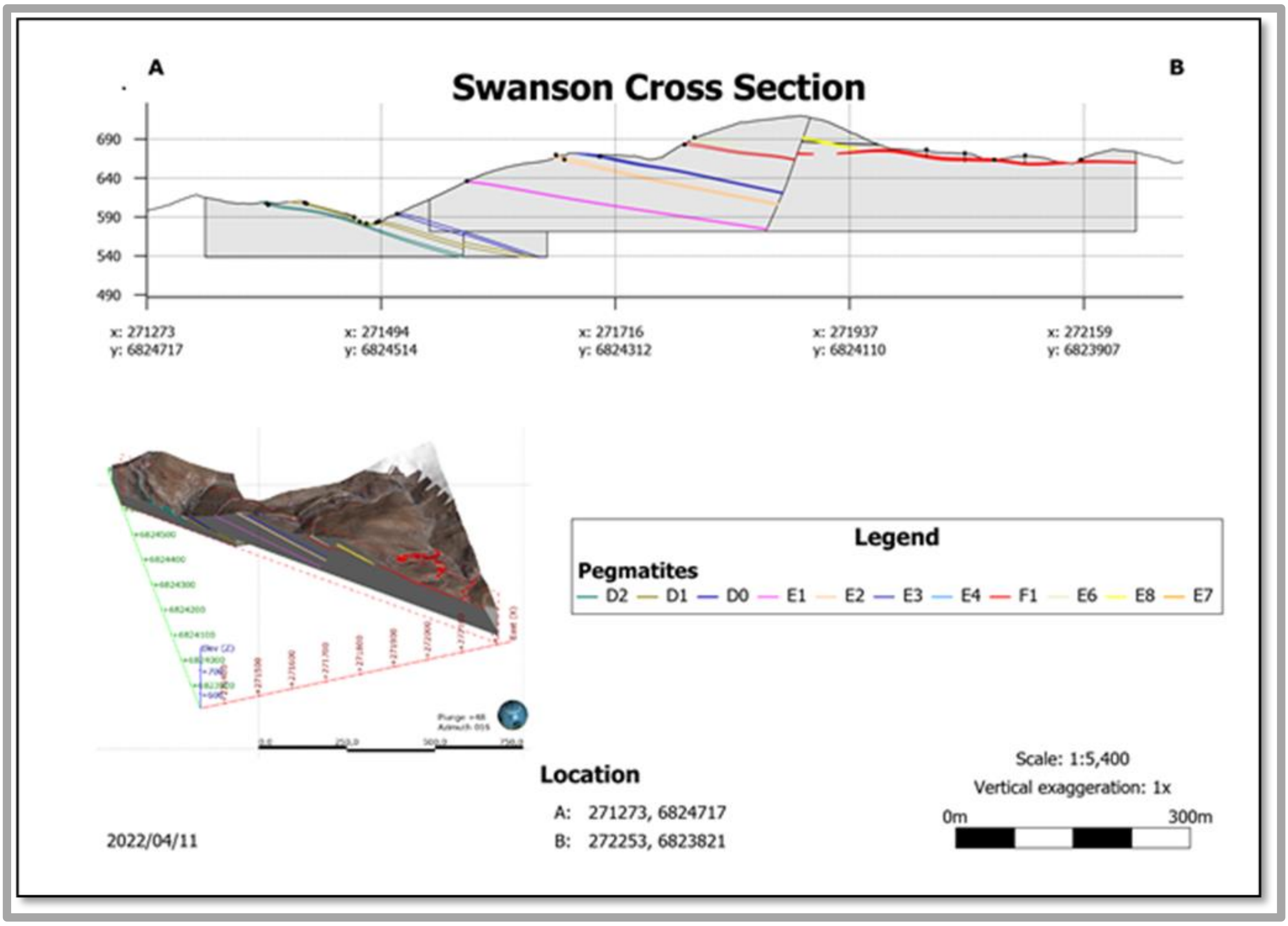

Figure 4: Section through the D, E and F pegmatites

The pegmatites formed in tension fractures that developed adjacent to the mylonitic shear zone within the host meta-gabbro rocks. Acidic interbeds, locally referred to as “bars” by previous explorers adjacent to the gabbro, is more competent and thus did not form fractures as easily as the gabbro to accommodate the propagation of pegmatites.

In terms of their geometry, most of the pegmatites at the Swanson deposit have a general northeast-southwest strike, with shallow dip angles (10-20˚) to the southeast.

One of the pegmatites, however, has a different strike from the rest of the pegmatites investigated. Pegmatite 'F1' strikes approximately 148˚ and dips on average at 14˚ to the northeast. Due to the shallow dips of all the pegmatites, this difference in orientation is not easily observed when looking at apparent dips of outcrops but becomes apparent when true dips are viewed in the 3D model. The F1 pegmatite observed in the south-eastern part of the study area is the same pegmatite that was previously labelled 'E5' in the central E Area.

In the D Area, three main pegmatites were identified and included for modelling, namely D2, D1 and D0 in ascending order. Based on mapping information, it appears as if D0 terminates against the hanging wall side of D1 in some areas. This is likely a crosscutting relationship of different pegmatites but could also be the result of bifurcation of a single pegmatite. The general arrangement is shown in Figure 4.

Estimation and modelling techniques

Two models were created for resource estimation purposes, one in the D Area, and another of the E and F areas combined. Although the pegmatite intrusions of the Swanson deposit extend beyond these two areas, model boundaries were created around the sampling/mapping locations of the D and E-F areas only. Implicit geological models were created in Leapfrog Geo® (Version 2021.2.4) for areas D and E-F from the data discussed in Section 6 of the Independent Geological Report. Implicit modelling, based on a method of global interpolation using radial basis functions, provides a viable alternative to the traditional explicit modelling.

Each of the major pegmatites were modelled using the “vein” function in Leapfrog Geo®. Vein contact surfaces in Leapfrog Geo remove existing lithologies and replace them with the vein lithology within the boundaries defined by hanging wall and footwall surfaces. Hanging wall and footwall surfaces were derived from drilling interval contacts, as well as from mapping information. A surface resolution of 10 m for each vein was inherited from the geological model and a setting for lens surfaces to snap to all input data was applied. Individual planar reference surfaces were defined along the “best fit” between the hanging wall and footwall surfaces for the construction of each vein.

Individual pegmatites were combined into a vein system in Leapfrog Geo. This allows for setting up geochronology and crosscutting relationships between individual veins, as well as reporting of a combined vein system volume, instead of individual volumes only.

Three faults were created, which divided the geological model of the D Area into four fault blocks. All three faults are subparallel steeply dipping east-northeast striking, and do not intersect one another within the boundaries of the modelled area. Thus, no crosscutting relationships had to be specified. Two of the modelled faults in the northern part of Area D are only 16 m apart and likely form part of a steeply dipping fault zone, with little displacement, based on the mapping and drilling information. The third fault lies roughly 100 m to the southwest, and presumably follows the same orientation as the two mentioned above. Another structure, presumably associated with the mylonitic shear zone north of the pegmatites, was used as the northern boundary for the D Area model during this estimate.

A steeply dipping north-northeast-striking fault forms the southern boundary of the geological model for the E-F Area. Small offsets or bends in the pegmatites are observed, but only one main structure wat activated as a fault in the model.

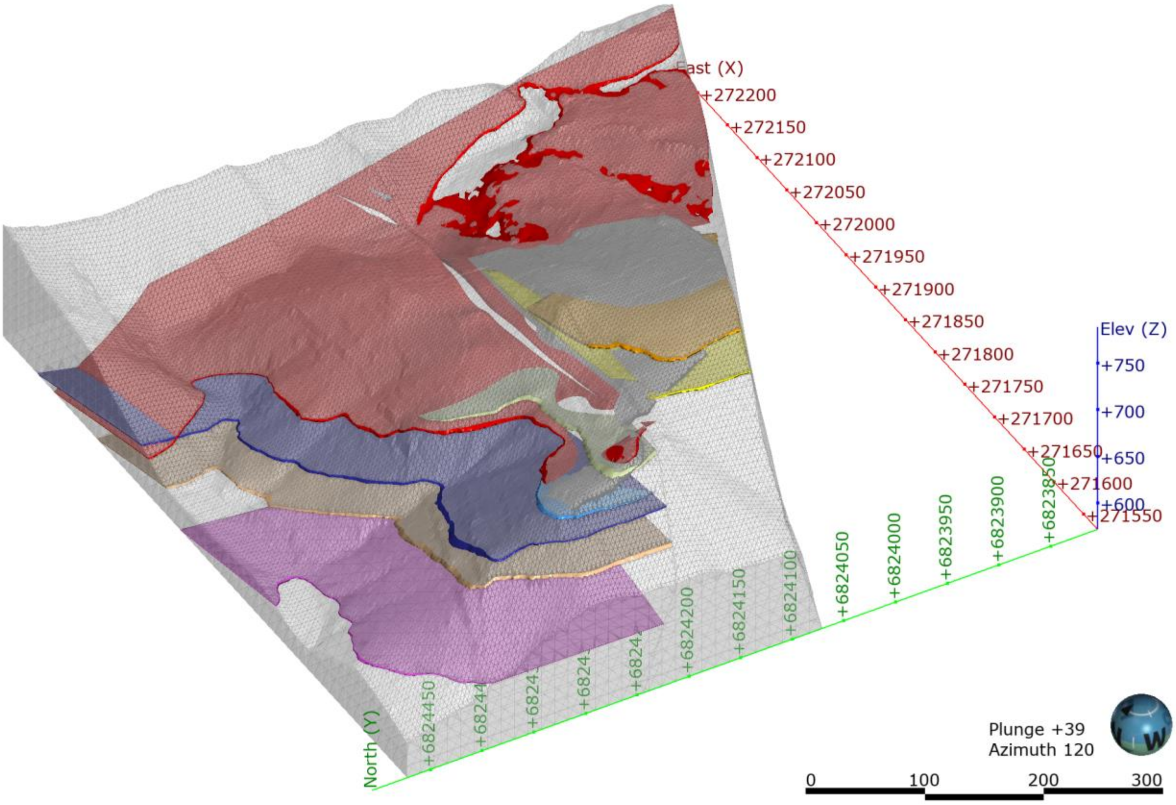

Figure 5: Three-dimensional model for the E and F area pegmatites

Resources were classified on a distance from sample basis. A boundary polygon was created Kriging was used as the geostatistical tool and an omni-directional variogram for Ta2O5 ppm for the various pegmatites was created. As an example, the F1 variogram shows a two-structure spherical model, with first model range of 34 m, and second structure range of 141 m. Block size of 10 * 10 * 2 m with sub blocking of 2 * 2 * 2 m was used to create the block model for resource calculations.

A boundary "shell" was created around sampled borehole traces that were used for the estimation – this includes boreholes, channel samples and chip samples. Resources within this boundary were classified to have an Indicated confidence level. Based on the average variogram range for the Ta2O5, a buffer of 50m was created around the boundary described above. Pegmatite deposits within the 50m buffer were classified as Inferred. Any deposits beyond the 50m buffer are considered as 'Unclassified' and were not included in this resource report. The same method of classification was applied to both the D and F.

Resources in the E-F Area were classified on a distance from sample basis. A boundary "shell" was created around sampled borehole traces that were used for the estimation – this includes boreholes and channel samples. A steeply dipping north-northeast-striking fault forms the southern boundary of this classification system for the E-F area, whereas the intermittent stream that drains the area forms the eastern and northern boundaries.

Resources within this boundary were classified to have an Indicated confidence level. Based on the average variogram range for the Li_2O, a buffer of 50 m was created around the boundary shell described above. Pegmatite deposits within the 50 m buffer were classified as Inferred. Any deposits beyond the 50 m buffer are considered "Unclassified" and were not included in this resource report.

A similar classification method was used for the D Area, but instead of using a "shell" around the borehole traces, a polygon around the borehole collars was projected vertically downward. The reason for using the shell approach in the E-F area was to take into consideration shallower holes that did not intersect the lowermost E pegmatite layers. Applying the same resource classification method in the E-F area that was used in the D Area would give unrealistically high confidence to these lower pegmatites, with shallow holes drilled above them, but not into them.

Sparse spacing, of drillholes specifically, in large parts of the D and E-F deposits, resulting in low to unknown statistical grade continuity in these areas is the main reason for not considering the deposit as a Measured Resource at this stage. Nevertheless, the detailed mapping carried out by ORP suggests that geological continuity of the pegmatites is likely.

Density: 2.64 g/cm³					
D Class v5.1	**D v5.1 for Estimation**	**Mass (kt)**	**Ta_2O_5 (ppm)**	**Li_2O %**	**Nb_2O_5 (ppm)**
Indicated	D0 v5	25	314	0.18	41
	D1 v5	323	340	0.35	96
	D2 v5	220	408	0.17	78
	Total	**568**	**365**	**0.27**	**87**
Inferred	D0 v5	90	325	0.29	46
	D1 v5	250	361	0.42	93
	D2 v5	103	408	0.19	72
	Total	**444**	**365**	**0.34**	**79**
Indicated + inferred	**D0 v5**	**115**	**322**	**0.27**	**45**
	D1 v5	**573**	**349**	**0.38**	**95**
	D2 v5	**324**	**408**	**0.17**	**76**
	Total	**1 012**	**365**	**0.30**	**83**
Differences may occur in totals due to rounding.					

Table 1: Indicated and Inferred Mineral Resource Estimation for D Area

Density: 2.64 g/cm³					
E-F Class	**E-F v5.2 for Estimation**	**Mass (kt)**	**Ta_2O_5 (ppm)**	**Li_2O %**	**Nb_2O_5 (ppm)**
Indicated	E7 v5	75	626	0.24	59
	E8 v5	26	723	0.00	71
	E6 v5	40	513	0.10	54
	F1 v5	311	563	0.03	59
	E4 v5	3	748	0.01	56
	E3 v5	53	460	0.14	76
	E2 v5	68	660	0.02	95
	Total	**577**	**578**	**0.07**	**65**
Inferred	E7 v5	72	649	0.17	59
	E8 v5	61	709	0.01	67
	E6 v5	0	529	0.13	58
	F1 v5	259	560	0.02	57
	E4 v5	6	756	0.01	57
	E3 v5	231	456	0.10	72
	E2 v5	365	571	0.02	77
	Total	**995**	**557**	**0.05**	**69**
Indicated + Inferred	**E7 v5**	**146**	**637**	**0.21**	**59**
	E8 v5	**87**	**713**	**0.00**	**68**
	E6 v5	**41**	**513**	**0.10**	**54**
	F1 v5	**570**	**561**	**0.03**	**59**
	E4 v5	**10**	**753**	**0.01**	**57**
	E3 v5	**284**	**457**	**0.11**	**73**
	E2 v5	**434**	**585**	**0.02**	**80**
	Total	**1 572**	**564**	**0.05**	**67**
Differences may occur in totals due to rounding.					

Table 2: Indicated and Inferred Mineral Resource Estimation for EF Area

Benchmarking

In 2017 the United States Geological Survey (USGS) issued a paper on Niobium and Tantalum as Chapter M of Critical Mineral Resources of the United States—Economic and Environmental Geology and Prospects for Future Supply.

According to the USGS primary niobium and tantalum mineral deposits are found in three main types of igneous intrusive rocks:

1. Carbonatites and associated alkaline rocks(Nb dominant),
2. Alkaline to peralkaline granites and syenites(Nb dominant), and
3. Rare-metal granites and pegmatites of the lithium-caesium-tantalum (LCT) family (Ta dominant)

According to the USGS all economically important tantalum mineralization is related to rare-metal granites (also called rare-element granites) and lithium-caesium-tantalum (LCT)-type pegmatites. The database identified 18 deposits.

A detail web search of the 18 deposits resulted that public domain information for 11 of the deposited could be obtained. Table 2 of Annexure 2 shows the public domain resource tonnes and grades for comparative deposits. As could be seen from the table the current MRE for Swanson is the highest grade of the 11 deposits.

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

For further information please contact:

Jurie Wessels
Executive Chairman
Arcadia Minerals Limited
info@arcadiaminerals.global

COMPETENT PERSONS STATEMENT & PREVIOUSLY REPORTED INFORMATION

The information in this announcement that relates to Exploration Results and Mineral Resources (listed below) 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.

The information in this announcement that relates to Mineral Resources complies with the 2012 Edition of the Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves (JORC Code) and that has been compiled, assessed, and created under the supervision of Mr Matt Mullins BSc (Hons) Geology who is a Fellow of the Australasian Institute of Mining and Metallurgy (membership number 209421) and is an Executive Consultant of Snowden Optior, which is a consultant to Arcadia and Orange River Pegmatite (Pty) Ltd.

Mr Mullins has sufficient experience that is relevant to the style of mineralisation and type of deposit under consideration and to the activity being undertaken to qualify as a Competent Persons as defined in the 2012 Edition of the JORC Code. Mr Mullins is the competent person for the estimation and has relied on provided information and data from the Company, including but not limited to the geological model, database and expertise gained from site visits. Mr Mullins consents to the inclusion in this announcement of matters based on his information in the form and context in which it appears. The Mineral Resource is based on standard industry practises for drilling, logging, sampling, assay methods including quality assurance and quality control measures as detailed in the annexures.

Competent Person	Membership	Report/Document
Mr Matt Mullins (Executive Consultant Snowden)	Australasian Institute of Mining and Metallurgy (AusIMM) no 209421	Geology and Mineral Resource of the D E and F Pegmatites Report Number JB018308, May 2022
Mr Philip le Roux (Director, Arcadia Minerals)	South African Council for Natural Scientific Professions #400125/09	This announcement and JORC Tables

The Company confirms that the form and context in which a Competent Person's previous findings, as referenced in footnote 1 (including findings in a report styled *Geology and Mineral Resources of the D and F Pegmatites. An independent geologist report containing the Mineral Resource estimates of the D and F pegmatites* dated 23 September 2021, as detailed in previous announcements and presented in this announcement, have not been materially modified from the original market announcements.

Release Date	ASX Announcements.
23.09.2021	Maiden JORC Resource at Swanson Ta/Li 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 Gold and new-era metals (Lithium, Tantalum, Palladium, 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 Project – prospective for lithium-in-brines and that includes a potentially expanding JORC Mineral Resource from lithium-in-clays.
2. Kum-Kum Project – prospective for nickel, copper, and platinum group elements.
3. Karibib Project – prospective for copper and gold.
4. The Swanson Project – advanced tantalum project undergoing a feasibility study, and which contains a potentially expanding JORC Mineral Resource within the Swanson Project area and neighbouring tenements held by the Company.

As an exploration company, all the projects of the company are currently receiving focus. However, currently the Swanson project and the Bitterwasser Lithium project 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 forward-looking 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.

ANNEXURE 1

TABLE 1: DRILLHOLE LOCATIONS AND INTERSECTIONS

HOLE ID	Pegmatite	X	Y	Z	EOH	From	To	Thickness - m	Ta2O5 - ppm
D1DDH01	D1PEG	271546	6824558	586	20.87	3.63	7.76	4.13	228
D1DDH01	D2PEG	271546	6824558	586	20.87	13.05	16.65	3.6	347
D1DDH01	D2PEG	271546	6824558	586	20.87	16.89	18.05	1.16	717
D1DDH02	D1PEG	271513	6824541	585	20.73	2.21	6.08	3.87	339
D1DDH02	D2PEG	271513	6824541	585	20.73	11.61	12.42	0.81	327
D1DDH02	D2PEG	271513	6824541	585	20.73	12.57	13.16	0.59	648
D1DDH02	D3PEG	271513	6824541	585	20.73	14.17	15.04	0.87	369
D1DDH03	D1PEG	271452	6824648	630	33.19	8.47	15.7	7.23	398
D1DDH03	D2PEG	271452	6824648	630	33.19	25.19	29.37	4.18	325
D1DDH04	D1PEG	271549	6824648	614	27.68	10.75	12.16	1.41	350
D1DDH04	D2PEG	271549	6824648	614	27.68	20.9	27.09	6.19	288
D1DDH05	D1PEG	271507	6824650	620	30.41	4.08	9.33	5.25	458
D1DDH05	D2PEG	271507	6824650	620	30.41	25.52	28.94	3.42	396
D1DDH06	D1PEG	271507	6824605	605	21.31	1.54	9.53	7.99	317
D1DDH06	D2PEG	271507	6824605	605	21.31	13.02	16.03	3.01	244
D1DDH06	D3PEG	271507	6824605	605	21.31	18.18	19.1	0.92	214
D1DDH07	D1PEG	271559	6824613	600	21.51	0	8.67	8.67	169
D1DDH07	D2PEG	271559	6824613	600	21.51	16.21	17.5	1.29	253
D1DDH08	D1PEG	271590	6824608	599	8.09	1.5	2.73	1.23	413
D1DDH08	D2PEG	271590	6824608	599	8.09	7.8	8.09	0.29	357
D1DDH09	D1PEG	271616	6824573	588	29.99	5.04	5.77	0.73	279
D1DDH09	D2PEG	271616	6824573	588	29.99	9.58	19.13	9.55	280
F1DDH02	F1PEG	272051	6823952	676	11.67	5.89	8.14	2.25	343
F1DDH03	F1PEG	272099	6823954	669	11.31	9.71	10.78	1.07	507
F1DDH04	F1PEG	272002	6823945	682	7.89	2.7	4.82	2.12	421
F1DDH05	F1PEG	272003	6824003	679	12.2	9.3	11.97	2.67	309
F1DDH06	F1PEG	272153	6823954	656	7.73	3.76	5.18	1.42	399
F1DDH07	F1PEG	272044	6824008	672	12.14	6.24	8.44	2.2	275
F1DDH08	F1PEG	272005	6824038	676	11	6.33	9.37	3.04	459
F1DDH09	F1PEG	272050	6823901	687	12.39	10.38	11.89	1.51	665
F1DDH10	F1PEG	272055	6823982	666	7.33	0.23	2.88	2.65	272

HOLE ID	Pegmatite	X	Y	Z	EOH	From	To	Thickness - m	Ta2O5 - ppm
F1DDH11	F1PEG	272104	6823901	672	4.36	1.06	2.93	1.87	618
F1DDH12	F1PEG	272054	6824042	663	14.13	3.68	6.24	2.56	363
F1DDH12	PEG	272099	6824103	634	4.97	7.85	8.28	0.43	443
F1DDH13	F1PEG	272002	6823901	694	9.25	0.43	2.59	2.16	361
F1DDH16	F1PEG	272080	6824169	629	9.7	5.33	7.1	1.77	519
DP01	E7PEG	271899	6823998	713	30.05	2.81	3.39	0.58	652
DP01	F1PEG	271899	6823998	713	30.05	26.37	28.53	2.16	505
DP02	F2PEG	271952	6824049	693	32.77	0	0.1	0.1	400
DP02	F2PEG	271952	6824049	693	32.77	1.2	1.79	0.59	488
DP02	F1PEG	271952	6824049	693	32.77	9.52	11.38	1.86	476
DP03	F1PEG	271995	6824097	669	5.75	0.25	2.68	2.43	315
DP04	E7PEG	271851	6824051	732	42.74	16.57	17.79	1.22	884
DP04	F2PEG	271851	6824051	732	42.74	28.33	29.25	0.92	854
DP04	F1PEG	271851	6824051	732	42.74	36.25	37.43	1.18	782
DP05	F2PEG	271902	6824117	718	41.87	27.83	28.38	0.55	355
DP05	F1PEG	271902	6824117	718	41.87	30.21	32.23	2.02	745
DP06	F1PEG	271953	6824161	694	51.05	44.29	46.93	2.64	568
DP07	F1PEG	271992	6824217	682	57.25	52.33	54.03	1.7	649
DP08	PEG	271799	6824054	746	20.53	1.08	1.32	0.24	161
DP08	PEG	271799	6824054	746	20.53	2.42	2.53	0.11	125
DP09	E7PEG	271742	6824045	750	18.75	9.81	11.21	1.4	655
DP10	E7PEG	271795	6824104	741	25.11	16.54	19.01	2.47	619
DP11	E7PEG	271898	6824194	706	92.52	6.64	6.79	0.15	359
DP11	F1PEG	271898	6824194	706	92.52	42.28	44.89	2.61	750
DP11	PEG	271898	6824194	706	92.52	48	48.6	0.6	484
DP11	E3PEG	271898	6824194	706	92.52	61.92	62.35	0.43	556
DP11	E2PEG	271898	6824194	706	92.52	69.21	69.54	0.33	454
DP11	E2PEG	271898	6824194	706	92.52	69.86	70.36	0.5	187
DP11	PEG	271898	6824194	706	92.52	75.69	76.16	0.47	382
DP12	F1PEG	271943	6824245	688	56.98	50.23	51.73	1.5	643
DP12	PEG	271943	6824245	688	56.98	51.96	52.07	0.11	380
DP13	F1PEG	272049	6824145	640	13.82	7.92	10.22	2.3	619
DP14	E7PEG	271753	6824101	742	21.23	7.66	9.37	1.71	704

HOLE ID	Pegmatite	X	Y	Z	EOH	From	To	Thickness - m	Ta2O5 - ppm
DP14	E8PEG	271753	6824101	742	21.23	15.1	15.95	0.85	376
DP14	F2PEG	271753	6824101	742	21.23	19.78	20.85	1.07	365
DP15	E7PEG	271799	6824128	738	21.87	13.72	17.34	3.62	479
DP16	F1PEG	271738	6824161	726	35.07	20.93	21.78	0.85	441
DP17	E7PEG	271805	6824195	714	37.67	10.8	10.95	0.15	413
DP17	F2PEG	271805	6824195	714	37.67	23.33	25.22	1.89	553
DP17	F1PEG	271805	6824195	714	37.67	30.66	32.44	1.78	731
DP18	E8PEG	271698	6824149	735	134.81	4.48	5.38	0.9	342
DP18	PEG	271698	6824149	735	134.81	6.32	6.51	0.19	131
DP18	F1PEG	271698	6824149	735	134.81	20.51	20.78	0.27	330
DP18	E3PEG	271698	6824149	735	134.81	35.45	36	0.55	177
DP18	E2PEG	271698	6824149	735	134.81	80.96	81.11	0.15	206
DP18	PEG	271698	6824149	735	134.81	118.68	118.85	0.17	321
DP18	E1PEG	271698	6824149	735	134.81	131.43	131.98	0.55	266
DP19	F1PEG	271751	6824185	715	49.04	15.32	15.49	0.17	432
DP19	E3PEG	271751	6824185	715	49.04	24.83	24.91	0.08	386
DP20	F1PEG	271701	6824200	717	15.98	2.89	5.97	3.08	614
DP20	E4PEG	271701	6824200	717	15.98	6.73	7.04	0.31	732
DP20	E3PEG	271701	6824200	717	15.98	13.36	13.9	0.54	988
DP21	F1PEG	271661	6824197	727	121.04	5.49	8.49	3	454
DP21	E3PEG	271661	6824197	727	121.04	23.04	23.53	0.49	612
DP21	E2PEG	271661	6824197	727	121.04	62.82	62.95	0.13	189
DP21	E1PEG	271661	6824197	727	121.04	114.21	114.6	0.39	73
DP22	F1PEG	271849	6824233	698	37.67	32.82	35.01	2.19	762
DP23	F1PEG	272117	6824149	630	14.79	8.79	10.21	1.42	674
DP23	PEG	272117	6824149	630	14.79	10.37	10.5	0.13	421
DP24	D0PEG	271645	6824535	590	48.25	27.38	37	9.62	354
DP25	D0PEG	271583	6824530	605	58.52	28	31.59	3.59	404
DP25	D1PEG	271583	6824530	605	58.52	39.88	43.36	3.48	403
DP25	D1PEG	271583	6824530	605	58.52	44.1	44.24	0.14	474
DP25	D2PEG	271583	6824530	605	58.52	44.61	47.69	3.08	368
DP25	D3PEG	271583	6824530	605	58.52	49.09	49.43	0.34	660
DP26	D0PEG	271546	6824512	602	52.83	16.11	19.81	3.7	193

HOLE ID	Pegmatite	X	Y	Z	EOH	From	To	Thickness - m	Ta2O5 - ppm
DP26	D1PEG	271546	6824512	602	52.83	31.91	35.16	3.25	304
DP26	D1PEG	271546	6824512	602	52.83	35.25	35.35	0.1	808
DP26	D1PEG	271546	6824512	602	52.83	35.74	36.52	0.78	684
DP26	D2PEG	271546	6824512	602	52.83	42.09	45.35	3.26	497
DP26	D3PEG	271546	6824512	602	52.83	48.55	49.07	0.52	451
DP27	F1PEG	272085	6824174	628	14.84	7.07	8.43	1.36	578
DP28	F1PEG	272094	6824316	619	43.67	24.56	24.93	0.37	603
DP29	F1PEG	272113	6824201	625	21.07	15.12	16.34	1.22	624

ANNEXURE 2

Table 2: Comparative Tantalum Projects

Company	Deposit	Primary Element	Resource Category	Development Stage	Resource _Mt	Ta2O5_ppm	Information Source
Arcadia Minerals Limited	Swanson	Tantalum	Indicated & Inferred	Exploration	1.20	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	Morrua	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	Kazera	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

ANNEXURE 3

JORC 2012 TABLES[3]

The following Tables are provided to ensure compliance with the JORC Code (2012 Edition) requirements for the reporting of Exploration Results and Mineral Resources at the Swanson Tantalum Project.

Section 1 Sampling Techniques and Data

Criteria	JORC Code Explanation	Commentary
Sampling techniques	*Nature and quality of sampling (e.g., 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 (e.g., '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 problems. Unusual commodities or mineralisation types (e.g., submarine nodules) may warrant disclosure of detailed information.*	Sampling was undertaken using industry standard practices and consist of large-scale chip and channel sampling and diamond drilling by ORP during 2020 and 2022. All 52 drillholes were drilled vertically. 234 samples were taken from the core of the drilling campaign. Orange River Pegmatite (Pty) Ltd (ORP) conducted reconnaissance chip sampling and channel sampling during 2018. Samples were between 220 g and 6 kg. A total of 283 samples consisting of 204 channel and 79 chip samples were taken from 15 pegmatites during 2019. The average sample weight is 7.5 kg. Three additional samples were taken for mineralogy test work. An additional 15 samples collected from different pegmatite feldspar types. All drillhole and sample locations are mapped in WGS84 UTM zone 34S. During 1981 Placer Development Ltd (Placer) collected 91 channel samples with an average weight of 14.22 kg.

[3] **Source**: Independent Geological Report by Snowden Optiro "*Report for Orange River Pegmatite Geology and Resource Estimation of the D, E and F Pegmatites, Project Number JB018308, May 2022*"

Criteria	JORC Code Explanation	Commentary
		Bulk samples were taken at four locations, with 3–5 tonnes of material being obtained through drilling and blasting.
Drilling techniques	*Drill type (e.g., core, reverse circulation, open-hole hammer, rotary air blast, auger, Bangka, sonic, etc.) and details (e.g., 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.).*	52 vertical diamond drillholes were drilled at ten pegmatites. The drillholes are HQ with a 63.5 mm core. The holes were drilled with a 50 m strike spacing on drill lines and have a total core length of 1 568.92 m. The depth of the holes ranged from 4.36 m to 134.81 m.
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 recovery in the mineralised pegmatite was more than 90% due to the competent nature of the pegmatite bodies and even in the fractured country rock minimal core loss was recorded. 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 drillholes were fully logged. The core, channel and chip samples have been logged to a level of detail to support appropriate Mineral Resource estimation, mining studies and metallurgical studies. The total length of the intersected pegmatite logged is 198.87 m and the percentage is 13% of total core drilled.

Criteria	JORC Code Explanation	Commentary
		It is assumed that the Placer samples have been logged according to industry standards at the time; however, the specific logging techniques used are not stated in available documents. These samples information was also not use for the MRE.
Subsampling 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.* *Quality control procedures adopted for all subsampling 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.*	Three field duplicate samples of previously field channel sample F1_3, F1_25 and F1_37 was collected on the F pegmatite. The samples were dry. At the laboratory the samples were crushed to 2 mm. A 200 g subsample of the crushed material was taken to be milled in a carbon milling pot to 90% <75 micron. Samples consisted of half core, with the core being split using a saw. Approximately 200–220 g of sample was taken per drilled mineralised metre was recovered. Half core samples were also taken for comparison purposes. No information is available on subsampling techniques and sample preparation by Placer, because such procedures are not recorded in available documents.
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 (e.g., standards, blanks, duplicates, external laboratory checks) and whether acceptable levels of accuracy (i.e., lack of bias) and precision have been established.*	The samples were analysed at Scientific Services (Pty) Ltd, a laboratory based in Cape Town, South Africa. At the laboratory, the samples were crushed to 2 mm. A 200 g subsample of the crushed material was taken to be milled in a carbon milling pot to 90% <75 micron. 0.25 g of the milled material was prepared and analysed through inductively coupled plasma-optical emission spectroscopy (ICP-OES) analysis for tantalum, niobium, and lithium. The samples are measured against standards.

Criteria	JORC Code Explanation	Commentary
		ORP added a total of 25 standards and the laboratory added an additional nine standards to the samples. The standards used are AMIS0339, AMIS0340, AMIS0342, AMIS0355 and AMIS0408. A total of 17 blanks AMIS0439 (Blank Silica Chips) were added to the samples. The two samples were submitted to the Sci-Ba Laboratories in England where the samples were subjected to petrographic and x-ray diffraction (XRD) analyses at the University of Southampton. The Standard Method BS EN 12407-2007, natural stone method was used for a petrographic investigation of the samples. All quality assurance/quality control (QAQC) samples plotted within acceptable analytical limits as defined for their type (i.e., certified reference materials – CRMs). No reporting issues were identified with any labs in question. It is assumed that industry best practices were used by the laboratories to ensure sample representivity and acceptable assay data accuracy, however, all the QAQC procedures used are not recorded in available documents.

Criteria	JORC Code Explanation	Commentary
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 ORP exploration geologist. The database was structured in a format suitable for importing into ArcGIS and 3D modelling software. Snowden reviewed all available sample and assay reports and is of the opinion that the electronic database supports the field data in almost all aspects and suggests that the database can be used for resource estimation. Verification was done by comparing drilling results with the closest channel sample data for each borehole. All sample material was bagged and tagged on site as per the specific pegmatite it was located on. The sample intersections were logged in the field and were weighed at the sampling site. All hard copy data-capturing was completed at the sampling locality. All sample material was stored at a secure storage site at the company site office. The original assay data has not been adjusted.
Location of data points	*Accuracy and quality of surveys used to locate drillholes (collar and downhole surveys), trenches, mine workings and other locations used in Mineral Resource estimation.* *Specification of the grid system used.* *Quality and adequacy of topographic control.*	The sample locations are global positioning system (GPS) captured using WGS84 UTM zone 34S. All drillholes collars used for the MRE were surveyed by a qualified surveyor, African Geomatics in February 2022 with the accuracy being 20 cm.
Data spacing and distribution	*Data spacing for reporting of Exploration Results.*	The drillholes were drilled at the two locations involving ten pegmatites with sections spaced 50 m apart with 50 m strike spacing on drill lines.

Criteria	JORC Code Explanation	Commentary
	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.*	For the channel and chip samples, each sampling point was carefully selected according to the physical quality of a sample point, normally on a 15 m, 25 m or 50 m interval, depending on the sample density required. The data spacing and distribution of the drillholes channel and chip sampling is insufficient to establish the degree of geological and grade continuity appropriate for the Mineral Resource and Ore Reserve estimation procedure(s) and classifications applied. Where pegmatites had a true thickness of >2 m, the channel samples were accordingly split into an equal length “top” and “bottom” channel sample. ORP prioritised the importance of bulk-pegmatite properties. Therefore, these channel sampling results were composited (i.e., weighted average of the entire intersection). The Placer samples were spaced on a 100 m grid.
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 holes were all drilled vertical. The channel and chip samples were also taken vertically from top to bottom of the pegmatites. Channel sampling conducted on pegmatite faces approximate right-angle intersections relative to the dip of the pegmatite at that specific location and thereof are unbiased by excessively oblique intersections. The tantalite is very fine and mostly not visible; therefore, no bias could take place when selecting the sample position. Orientation of the Placer sampling data in relation to the geological structure is not known, because it is not recorded in available documents.
Sample security	*The measures taken to ensure sample security.*	ORP 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. Samples also remain in ORP’s control until they are delivered and released to the laboratory.

Criteria	JORC Code Explanation	Commentary
		An export permit was obtained from the Namibian Mining Department to transport the samples across the border. Measures taken by Placer to ensure sample security have not been recorded in available documents.
Audits or reviews	*The results of any audits or reviews of sampling techniques and data.*	The deposit was visited by the Creo Competent Person during 2019 and Snowden during 2020. The visit was specifically to review the recent sampling campaign, and to review the sampling and assay procedures being used by the Company. Creo and Snowden considers that given the general sampling programme, geological investigations, check assaying and, in certain instances, independent audits, the procedures reflect an appropriate level of confidence.

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.*	EPL 5047 is located in the Karas region, southern Namibia, near the South African border, and approximately 15 km to the north of the Orange River. The EPL is held by ORP and is 14,671 hectares in size. ORP also obtained an Environmental Clearance Certificate on 4 April 2019 from the Ministry of Environmental and Tourism. A land-use agreement, including access to the property for exploration has been signed with the owners of the farms Norechab 130, Kinderzit 132 and Umeis 110
Exploration done by other parties	*Acknowledgment and appraisal of exploration by other parties.*	Swanson Enterprises held various claims on the farms Kinderzit and Umeis on EPL 5047 and mined tantalite, beryl, spodumene and tungsten on these claims in the 1970s to early 1990s.

Criteria	JORC Code explanation	Commentary
		A Canadian company, Placer, also conducted detailed exploration in this area between 1980 and 1982. The Geological Survey of Namibia in collaboration with the Council of Geoscience of South Africa conducted a detailed mapping programme (1: 50,000 scale) over large parts of Southern Namibia including EPL 5047 (2012 to 2017).
Geology	*Deposit type, geological setting and style of mineralisation.*	Mineralisation is in the form of pegmatites of the lithium-caesium-tantalum (LCT) type which intruded granitic gneisses, metasediments and gabbroic-troctolitic rocks of the Tantalite Valley Complex. The primary mineral commodities occurring are tantalum (Ta_2O_5) and spodumene $LiAl(SiO_3O)_2$.
Drillhole information	*A summary of all information material to the understanding of the exploration results including a tabulation of the following information for all Material drillholes:* a) *easting and northing of the drillhole collar* b) *elevation or RL (Reduced Level – elevation above sea level in metres) of the drillhole collar* c) *dip and azimuth of the hole* d) *downhole length and interception depth* e) *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.*	Drill results have been described in the report. All relevant data is included in the report.
Data aggregation methods	*In reporting Exploration Results, weighting averaging techniques, maximum and/or minimum grade truncations (e.g., cutting of high grades) and cut-off grades are usually Material and should be stated.*	Information about data aggregation is not stated in the available documents.

Criteria	JORC Code explanation	Commentary
	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.*	
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 drillhole 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 (e.g., 'downhole length, true width not known').*	The drillholes were all drilled vertical, with the pegmatites dipping on average 12.33° to the southeast. The pegmatite thickness intercepted range from 0.1 m to 9.62 m.
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 main report.
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 obvious targets and results of historical and recent exploration activities
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.*	ORP conducted reconnaissance and later detailed geological mapping to identify and prioritise targets. ORP appointed Asset Mapping Solutions (Pty) Ltd, a Cape Town based company, to conduct a detail drone survey of the Swanson prospect area in 2018. African Geomatics, a Windhoek based survey company conducted a more detail drone survey of the Swanson area in 2022.

Criteria	JORC Code explanation	Commentary
Further work	*The nature and scale of planned further work (e.g., 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 exploration and assessment phases should be aimed at establishing a resource base into hopefully an "Indicated" category, as well as undertaking the necessary research into markets and recovery processes in order to support a feasibility assessment for the project. The pegmatite bodies not explored yet should be mapped and sampled and mineralised pegmatites should be drilled to expand the existing resources base.

Section 3 Estimation and Reporting of Mineral Resources

Criteria	JORC Code explanation	Commentary
Database integrity	*Measures taken to ensure that data has not been corrupted by, for example, transcription or keying errors, between its initial collection and its use for Mineral Resource estimation purposes.* *Data validation procedures used.*	A copy of the RAW database provided by the client was kept unedited for auditing purposes of edits conducted. Overlapping intervals, duplicates and other errors were flagged by Leapfrog modelling software and corrected. Collar elevations were checked relative to the LiDAR-generated topographic surface. Further visual checks were also conducted to ensure a clean database for modelling and estimation; that data was in spatially in valid locations. Statistical analyses were carried out to see if data lies within valid ranges, and to identify possible outliers.
Site visits	*Comment on any site visits undertaken by the Competent Person and the outcome of those visits.* *If no site visits have been undertaken indicate why this is the case.*	Matt Mullins (Lead Competent Person) undertook a site visit on 17–19 August 2021. He was accompanied by site personnel, senior company executives, and by Matthew Jarvis from Snowden. The borehole core, overall geological setting, and the nature and mineralisation in the pegmatites was observed in detail.

Criteria	JORC Code explanation	Commentary
Geological interpretation	*Confidence in (or conversely, the uncertainty of) the geological interpretation of the mineral deposit.* *Nature of the data used and of any assumptions made.* *The effect, if any, of alternative interpretations on Mineral Resource estimation.* *The use of geology in guiding and controlling Mineral Resource estimation.* *The factors affecting continuity both of grade and geology.*	The geological interpretation is that the tabular pegmatite bodies were formed by anatexis within existing fracture planes in the host gabbroic orebody. In terms of their geometry, most of the pegmatites at the Swanson deposit have a general northeast-southwest strike, with shallow dip angles (10-20˚) to the southeast. One of the pegmatites, however, has a different strike from the rest of the pegmatites investigated. Pegmatite 'F1' strikes approximately 148˚ and dips on average at 14˚ to the northeast. The pegmatites are sub-horizontal tabular orebodies within the host gabbro, with clearly defined and sharp hanging wall and footwall contacts. Mineral Resources were defined within the well explored D and E-F pegmatite zones, respectively. These pegmatites can be traced on surface at the kilometre scale, and have been confirmed with diamond drilling intersects, so there is a high level of confidence in the geological interpretation. They are uniform in thickness over large distances. Tantalum and niobium grades are uniformly distributed within individual pegmatites and vary slightly between different pegmatites. In both areas investigated, the highest lithium grades occur in the pegmatites highest up in the sequence (D0 and E7, respectively). The data used comprised mapping data, borehole diamond drilling, channel sampling of outcrops, and chip sampling. "Bars" and/or structures that influence the termination or displacement of pegmatites have been interpreted from available mapping and drilling information.
Dimensions	*The extent and variability of the Mineral Resource expressed as length (along strike or otherwise), plan width, and depth below surface to the upper and lower limits of the Mineral Resource.*	The pegmatite orebodies show a high degree of lateral continuity and can be traced in outcrop over the kilometre scale. The extension of the pegmatite bodies beyond the outcrop positions has been confirmed by diamond drilling. Down-dip continuation of all the shallower pegmatites has been confirmed by diamond drilling. This tendency is expected for the lower E-pegmatites as well but must be proven with additional deep boreholes.

Criteria	JORC Code explanation	Commentary
Estimation and modelling techniques	*The nature and appropriateness of the estimation technique(s) applied and key assumptions, including treatment of extreme grade values, domaining, interpolation parameters and maximum distance of extrapolation from data points. If a computer assisted estimation method was chosen include a description of computer software and parameters used.* *The availability of check estimates, previous estimates and/or mine production records and whether the Mineral Resource estimate takes appropriate account of such data.* *The assumptions made regarding recovery of by-products.* *Estimation of deleterious elements or other non-grade variables of economic significance (e.g., sulphur for acid mine drainage characterisation).* *In the case of block model interpolation, the block size in relation to the average sample spacing and the search employed.* *Any assumptions behind modelling of selective mining units.* *Any assumptions about correlation between variables.* *Description of how the geological interpretation was used to control the resource estimates.* *Discussion of basis for using or not using grade cutting or capping.* *The process of validation, the checking process used, the comparison of model data to drillhole data, and use of reconciliation data if available.*	The pegmatite hanging wall and footwall contacts were modelled in Leapfrog software. Based on mapping information, it appears as if D0 terminates against the hanging wall side of D1 in some areas. This relationship was shown in the modelling but could also be the result of bifurcation of a single pegmatite. Minor north-northwest-striking faults that dip steeply to the northeast were observed in both the D and the E-F areas. Notes by the ORP field geologists suggest normal movement along these faults, however, similar vertical offsets of dipping pegmatites could have occurred through sinistral strike-slip kinematics. More information is needed to confirm the true sense of movement, but the apparent downthrow is to the north of these structures. Each pegmatite was modelled separately, and as no zoning was apparent, either physically of from the chemistry, these were grade modelled as a single unit. The interpolation parameters were based on the variogram parameters. The Snowden Supervisor and Leapfrog Edge software was used for exploratory data analysis and for the variography. Ordinary kriging was used to estimate grades. No mining has taken place. The economics are based on the recovery of tantalum alone. Recovery assumptions are 67% Ta. Although economic concentrations of lithium are present, these were not considered. Niobium is present in solid solution in the tantalum. This was taken into account in the metallurgical test work. The block size used was 10 m x 10 m x 2 m. It was assumed that the SMU would be equivalent to the block size. As the entire pegmatites were considered to be economic, no selective mining is envisaged.

Criteria	JORC Code explanation	Commentary
		The pegmatites exhibit extremely sharp hanging wall and footwall contacts with the country rock, and these contacts were modelled as accurately as possible in the Leapfrog software. Any issues picked up during the validation were fixed immediately in the source data, to prevent reloading the same errors at a later stage. However, no edits were made to the copy of raw data.
Moisture	*Whether the tonnages are estimated on a dry basis or with natural moisture, and the method of determination of the moisture content.*	The tonnages are estimated on a dry basis.
Cut-off parameters	*The basis of the adopted cut-off grade(s) or quality parameters applied.*	The minimum cut-off was determined to be 237 ppm Ta_2O_5.
Mining factors or assumptions	*Assumptions made regarding possible mining methods, minimum mining dimensions and internal (or, if applicable, external) mining dilution. It is always necessary as part of the process of determining reasonable prospects for eventual economic extraction to consider potential mining methods, but the assumptions made regarding mining methods and parameters when estimating Mineral Resources may not always be rigorous. Where this is the case, this should be reported with an explanation of the basis of the mining assumptions made.*	It is assumed that the mining method would be by opencast mining. Because of the extremely sharp contacts, and the clear colour differential between the orebody and the host rock, no mining dilution was included.
Metallurgical factors or assumptions	*The basis for assumptions or predictions regarding metallurgical amenability. It is always necessary as part of the process of determining reasonable prospects for eventual economic extraction to consider potential metallurgical methods, but the assumptions regarding metallurgical treatment processes and parameters made when reporting Mineral Resources may not always be rigorous. Where this is the case, this should be reported with an explanation of the basis of the metallurgical assumptions made.*	In November 2020, Coremet Mineral Processing analysed a 5.45-tonne bulk sample and concluded that The ore was easily crushed but is highly abrasive. The spiral recoveries on the rougher spirals can be expected to be in the range of 70% to 80%. The lower recovery seems to be due to both liberation and particle size. At 76% spiral recovery and 90% MGS recovery, it will be possible to produce a Ta_2O_5 concentrate of above 20% Ta_2O_5 at a recovery of approximately 68%. This is without any optimisation and scavengers. This recovery value is slightly higher than the 65% recovery projected in the process plant study.

Criteria	JORC Code explanation	Commentary
Environmental factors or assumptions	*Assumptions made regarding possible waste and process residue disposal options. It is always necessary as part of the process of determining reasonable prospects for eventual economic extraction to consider the potential environmental impacts of the mining and processing operation. While at this stage the determination of potential environmental impacts, particularly for a greenfields project, may not always be well advanced, the status of early consideration of these potential environmental impacts should be reported. Where these aspects have not been considered this should be reported with an explanation of the environmental assumptions made.*	An independent environmental assessment concluded that: The potential negative impacts associated with the proposed mineral exploration project are expected to be low to medium in significance, apart from air quality, groundwater and some social impacts. Provided that the relevant mitigation measures are successfully implemented by the proponent, there are no environmental reasons why the proposed project should not be approved. The project will have significant positive economic impacts that would benefit the local, regional and national economy of Namibia.
Bulk density	*Whether assumed or determined. If assumed, the basis for the assumptions. If determined, the method used, whether wet or dry, the frequency of the measurements, the nature, size and representativeness of the samples.* *The bulk density for bulk material must have been measured by methods that adequately account for void spaces (vugs, porosity, etc.), moisture and differences between rock and alteration zones within the deposit.* *Discuss assumptions for bulk density estimates used in the evaluation process of the different materials.*	ORP determined the specific gravity (SG) of the samples by using the Archimedes principle on 147 chip samples that were collected from all six pegmatites from the targeted pegmatite swarm. The SG of each sample was calculated using the formula SG = (weight in air) / (weight in air – weight in water). This technique measures the volume of a sample by water displacement and density is then calculated as the ratio of mass to volume. No bulk density has been measured because the SG is considered appropriate as an input into the orebody model. It was found that the 147 samples have an average SG of 2.64. This is the SG that was used for reporting.
Classification	*The basis for the classification of the Mineral Resources into varying confidence categories.* *Whether appropriate account has been taken of all relevant factors (i.e., relative confidence in tonnage/grade estimations, reliability of input data, confidence in continuity of geology and metal values, quality, quantity and distribution of the data).* *Whether the result appropriately reflects the Competent Person's view of the deposit.*	Resources in the E-F Area were classified on a distance from sample basis. A boundary "shell" was created around sampled borehole traces that were used for the estimation – this includes boreholes and channel samples. A steeply dipping north-northeast-striking fault forms the southern boundary of this classification system for the E-F Area, whereas the intermittent stream that drains the area forms the eastern and northern boundaries. Resources within this boundary were classified to have an Indicated confidence level. Based on the average variogram range for the Li_2O, a buffer of 50 m was created around the boundary shell described above. Pegmatite deposits within the 50 m buffer were classified as Inferred. Any deposits beyond the 50 m buffer are considered "Unclassified" and were not included in this resource report.

Criteria	JORC Code explanation	Commentary
		A similar classification method was used for the D Area, but instead of using a "shell" around the borehole traces, a polygon around the borehole collars was projected vertically downward. The reason for using the shell approach in the E-F area was to take into consideration shallower holes that did not intersect the lowermost E pegmatite layers. Applying the same resource classification method in the E-F area that was used in the D Area would give unrealistically high confidence to these lower pegmatites, with shallow holes drilled above them, but not into them.
Reviews	*The results of any audits or reviews of Mineral Resource estimates.*	No audits or reviews were conducted.
Discussion of relative accuracy/ confidence	*Where appropriate a statement of the relative accuracy and confidence level in the Mineral Resource estimate using an approach or procedure deemed appropriate by the Competent Person. For example, the application of statistical or geostatistical procedures to quantify the relative accuracy of the resource within stated confidence limits, or, if such an approach is not deemed appropriate, a qualitative discussion of the factors that could affect the relative accuracy and confidence of the estimate.* *The statement should specify whether it relates to global or local estimates, and, if local, state the relevant tonnages, which should be relevant to technical and economic evaluation. Documentation should include assumptions made and the procedures used.* *These statements of relative accuracy and confidence of the estimate should be compared with production data, where available.*	The relative accuracy of the estimate is based on the geological and statistical continuity of the tabular pegmatites. The pegmatites can be traced in outcrop over tens to hundreds of metres, and their continuity has been confirmed by surface boreholes. Grade continuity has been confirmed through geostatistical analysis. The Indicated Resource forms a firm basis for global mine planning and for economic assessment of the orebodies.