ASX / Media Announcement
23 July 2024

Vital receives final drill results from Tardiff including 1.8m at 8% TREO from 6.7m

Highlights

- Tardiff drilling results from final 24 drill holes completed in 2023 resource definition drilling program (74 holes totaling 6,664m) continues to return shallow high grades;
- Results from resource conversion program at Tardiff; best results include:
  - **L23-639: 53.5m at 1.5% TREO** from 6.7m incl. **1.8m at 8% TREO** within **15.8m at 2.6% TREO**
  - **L23-652: 27.45m at 1.5% TREO** from 4.55m incl. **2m at 6.3% TREO**
  - **L23-638: 12.52m at 2.3% TREO** from 22.48m incl. **1.65m at 5.3% TREO**
  - **L23-643: 24.7m at 1.5% TREO** from 20.25 incl. **1.35m at 4.9% TREO**
  - **L23-664: 55.0m at 1.6% TREO** from 20.5m incl. **1.38m at 4.6% TREO**
  - **L23-644: 24.18m at 1.94% TREO** from 18.85m incl. **2m at 3.7% TREO**
  - **L23-633: 22.83m at 2.0% TREO** from 27.95m incl**. 1.87m at 3.3 % TREO**
  - **L23-628: 14m at 1.7% TREO** from 75m incl. **1m at 3.4% TREO**
  - **L23-660: 47.07m at 2.1% TREO** from 9.12m incl. **8.8m at 3% TREO** within **22.24m at 2.4% TREO**
  - **L23-633: 22.83m at 2.0% TREO** from 27.95m incl. **1.87m at 3.3% TREO** within **10.3m at 2.5% TREO**
- Mineralisation remains open to the west, northwest and on the southern margins – results confirm potential for shallow, higher-grade resource expansion
- Drilling focused on increasing confidence of the Tardiff Zones 1 and 3 resource definition and grade by narrowing drilling spacing for resource conversion
- Vital will use full results from 2023 program to update a Mineral Resource Estimate (MRE) for Tardiff which currently stands at **213Mt at 1.17% TREO**
- Vital is focused on developing the large-scale Tardiff deposit, one of the largest single rare earths deposits in the western world, estimated to contain **623,000 tonnes of neodymium and praseodymium (NdPr)** [1]
- NdPr offers the largest value market within the lanthanide series of rare earths and provide essential components in the production of high strength magnets.

Vital Metals Limited (ASX: **VML**) ("**Vital**", "**Vital Metals**" or "the **Company**") is pleased to announce high-grade results from the final 24 drill holes from its 2023 resource definition drilling program on the Tardiff deposit at its Nechalacho Rare Earth Project in NWT, Canada.

[1] VML ASX Announcement 4/04/2024 – Vital Increases Tardiff Mineral Resources Estimate Tonnage by 79% and Contained NdPr by 49%

Vital VP Exploration Dr. Pietrzak-Renaud said: *"We are thrilled with these very encouraging assays which round out our results from 2023. Across the board, our results point to areas within Tardiff of more continuous higher-grade mineralisation that we can target in future expansion drilling. The potential expansion of shallow higher grade is exciting as it underscores the large tonnage potential of this world class REE deposit.*

"We are pleased to close out the 2023 drill program and focus on the interpretation of the data. Preliminary relogging of drill core points to alteration controlling or significantly influencing mineralisation. We anticipate busy months ahead as we commence new metallurgical testwork shortly, and bring together the geological data; working toward completing our scoping study."

Summary of Latest Results

Outcomes from this final parcel of results for 24 drillholes (Figure 2) highlight the potential expansion of shallow higher grade mineralization. Results of the 2023 drill program will aid in the interpretation of the geological model as it pertains to mineralization controls, and could aid in further conversion and refining of Inferred resources in future resource estimate updates on the Tardiff deposit.

Vital's 2023 resource definition drilling program was drilled on a nominal 50m by 50m grid to infill areas previously drilled on nominal 100m to 200m drill spacing. Drilling targeted mineralization above the 150m RL. Vital aims to deliver a scoping study on the Tardiff deposit in the coming months. Further updates on Tardiff resource are planned related to field work and scoping study activities.

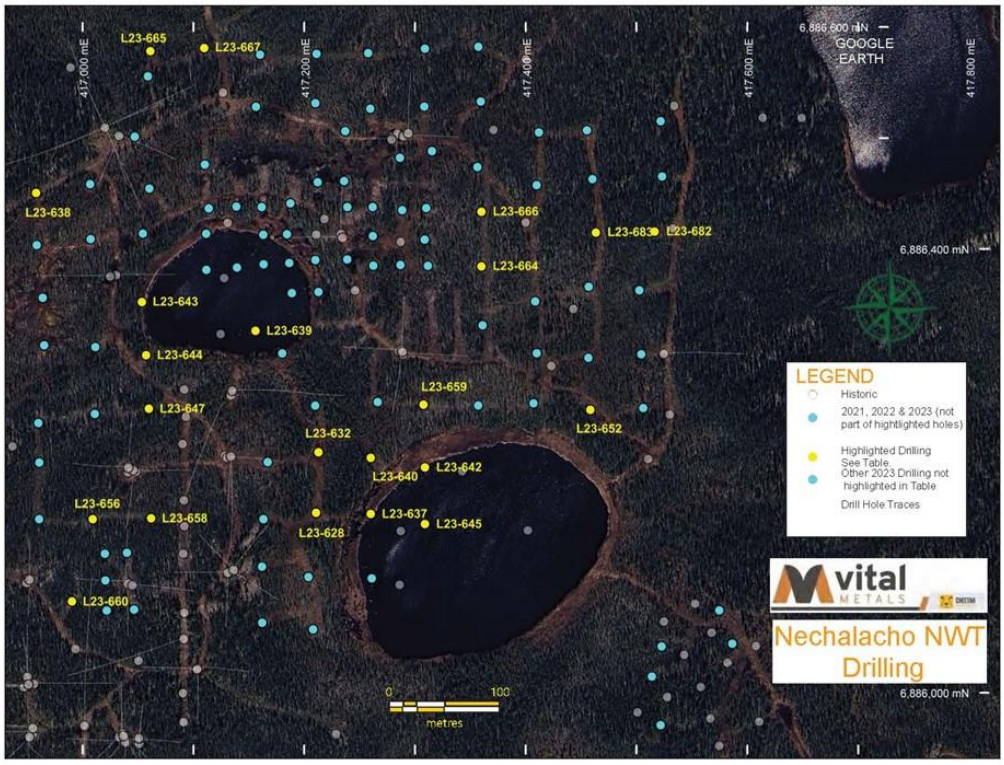

Figure 1: Plan view of the 2023 Tardiff drill program. Traces include the 2021 and 2022 drill programs.

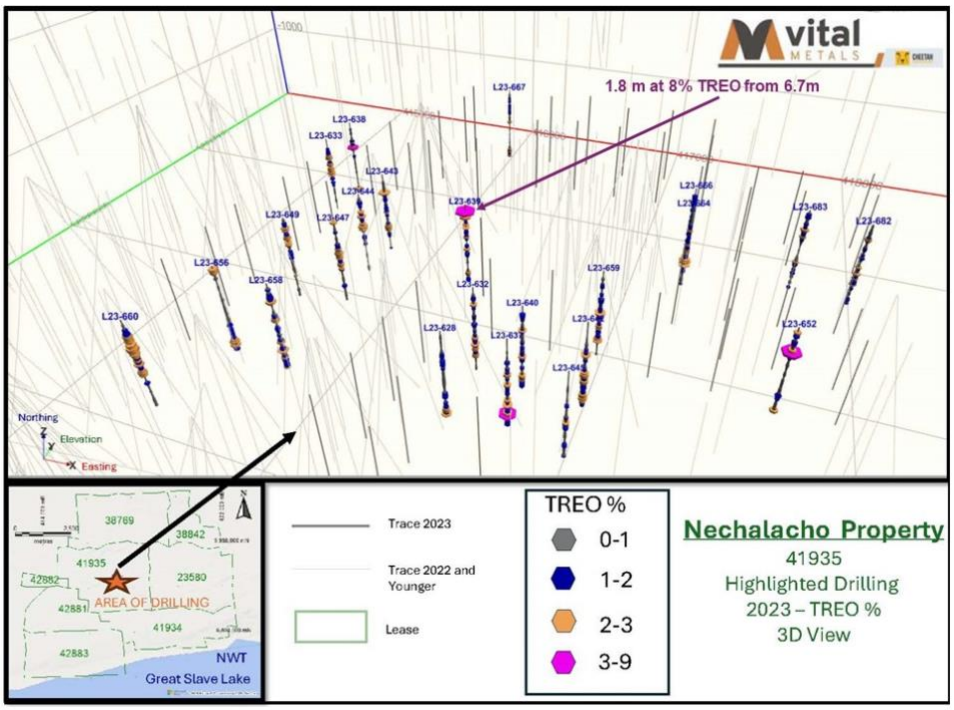

Figure 2: Projected drill strings highlighting (in colour) down-hole assays of the 24 drillholes released in this parcel of results from the 2023 drill program. All holes interpreted to intersect the Tardiff Upper Mineralized Zone within the Blachford Lake Complex. View is looking to the northeast. Assay results: Grey 0-1% TREO, blue 1-2% TREO, Orange 2-3% TREO and Fuchsia 3-9% TREO.

Results from this new data highlights shallow higher grades on the western extent of the 2023 drilling (hosting most of the discrete assays above 8% TREO in this parcel of data), which remains open for subsequent expansion. Shallow, higher-grade mineralization is hosted within predominantly strongly altered rock with varying degrees of magnetite, biotite and chlorite alteration and other secondary minerals replacing the majority of the primary mineralogy (i.e. secondary potassium feldspar).

The westernmost holes L23-638 and L23-633 support the working concept of broadly higher grade (> 5% TREO) extending to the west and northwest of current drilling. Results include:

L23-633: 22.83m at 2.05% TREO from 27.95
Incl. 10.3m at 2.54% TREO from 35.14m
L23-638: 12.52m at 2.32% TREO from 22.48m
Incl. 1.65m at 5.3% TREO from 30.61m.

Results from L23-656, L23-685 and L23-660 drillholes testing the southernmost extent of 2023 drilling also yielded shallow mineralization of up to nearly 3% TREO locally. Results include:

L23-656: 30m at 1.51% TREO from 60m
Incl. 7.9m at 2.64% TREO from 77.25m
L23-658: 31.6m at 1.58% TREO from 58.4m
Incl. 6.1m at 2.03% TREO from 66m
L23-660: 47.07m at 2.1% TREO from 9.12m
Incl. 22.24m at 2.44% TREO from 14.96m.

Drill holes L23-632, L23-642, L23-628, L23-637 and L23-645 also suggests expansion of relatively shallow and moderate grade towards the southeast of current drill extent. Results include:

L23-628: 14m at 1.78% TREO from 75m
L23-632: 36.65m at 1.51% TREO from 38.19m
Incl. 15.11m at 1.95% TREO from 59.73m
L23-637: 28.89m at 1.63% TREO from 61.71m
Incl. 6.7m at 2.58% TREO from 75.7m
L23-642: 38.5m at 1.94% TREO from 51.5m.

Summary Intersections from the 24 drill holes are listed in **Table 1**.

Table 1: Summary intersections for the latest parcel of 24 drill-holes of the 2023 resource definition drilling.

Hole ID		From (m)	To (m)	Length (m)	TREO %
L23-628		22	39	17	1.1
L23-628		64.15	69.65	5.5	1.54
L23-628		75	89	14	1.78
L23-628	including	87	88	1	3.46
L23-632		38.19	74.84	36.65	1.51
L23-632	including	52.14	55.16	3	2.14
L23-632	*and including*	59.73	74.84	15.11	1.95
L23-633		11.82	24.91	13.1	1.95
L23-633		27.95	50.78	22.83	2.05
L23-633	including	35.14	45.44	10.3	2.54
L23-633	*and including*	40.9	42.77	1.87	3.34
L23-637		33.38	41.46	8.08	1.33
L23-637		61.71	90	28.89	1.63
L23-637	including	75.7	82.4	6.7	2.58
L23-637	*and including*	77.37	78.3	0.93	5.92
L23-638		22.48	35	12.52	2.32
L23-638	including	30.61	32.26	1.65	5.3
L23-638		85.52	90	4.48	2.82
L23-639		6.7	60.2	53.5	1.52
L23-639	including	6.7	22.5	15.8	2.64
L23-639	*and including*	6.7	8.5	1.8	8.05
L23-639		78.2	83	4.8	1.92
L23-639		85.5	89.25	3.75	1.46
L23-640		8.3	15	6.7	1.44
L23-640		23	28	5	1.35
L23-640		42	58.05	16.05	1.37
L23-640		73.55	87	13.45	1.78
L23-642		30.75	34.4	3.65	1.95
L23-642		51.5	90	38.5	1.94

Hole ID		From (m)	To (m)	Length (m)	TREO %
L23-643		20.25	44.95	24.7	1.51
L23-643	including	20.25	21.6	1.35	4.94
L23-643		57.45	66.7	9.25	2.45
L23-644		4.4	14.88	10.48	1.24
L23-644		18.85	43.03	24.18	1.94
L23-644	including	35	37	2	3.68
L23-644		47.19	57.51	10.32	1.13
L23-645		51.6	59.5	7.9	1.45
L23-647		25.4	41	15.6	2.16
L23-647		42.75	54.75	12	1.69
L23-649		5.52	32.36	26.84	1.61
L23-649		36.6	45.75	9.15	1.28
L23-652		4.55	32	27.45	1.52
L23-652	including	24	26	2	6.34
L23-652		22	32	10	2.41
L23-656		2.56	7.55	4.99	2.36
L23-656		60	90	30	1.51
L23-656	including	77.25	85.15	7.9	2.64
L23-658		4.85	21.25	16.4	1.55
L23-658		58.4	90	31.6	1.58
L23-658	including	66	72.1	6.1	2.03
L23-659		23	75	52	1.49
L23-659	including	42.25	50	7.75	2.23
L23-659	*and including*	70	73.5	3.5	2.49
L23-660		9.12	56.19	47.07	2.1
L23-660	including	14.96	37.2	22.24	2.44
L23-660	*and including*	23.25	32.05	8.8	2.99
L23-664		20.5	75.5	55	1.63
L23-664	including	41	63.27	22.27	2.19
L23-664	*and including*	60.1	61.48	1.38	4.67
L23-666		8	25.83	17.83	1.43
L23-666		31.4	54.14	22.75	1.16
L23-666		79.67	90	10.33	1.44
L23-674		22	28.08	6.08	1.62
L23-674		53	72.4	19.4	1.4
L23-677		29.07	51.6	22.53	1.47
L23-682		14	19.52	5.52	1.74
L23-682		25.3	37.9	12.6	1
L23-683		14	34	20	1.57
L23-683		52.53	76.38	23.85	1.16

To date, all assays results from Vital's 2023 drill program have been received and reported.

Vital will use full results from its 2023 program to estimate an updated Mineral Resource for the Tardiff deposit.

A Scoping Study examining future production scenarios for Tardiff is on track for completion by the end of 2024.

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Contact
Lisa Riley
Managing Director and CEO
Vital Metals Limited
Phone: +1 (581) 624 4833
Email: lriley@vitalmetals.com

This announcement has been approved by the Board of Vital Metals Limited.

About Vital Metals

Vital Metals Limited (ASX: VML) is developing the large Nechalacho Rare Earth Project in Canada's Northwest Territories. Nechalacho has the potential to underpin a significant rare earths supply chain for North America and Europe with responsibly sourced critical minerals for the green economy transformation.

Qualified/Competent Persons Statement

Nechalacho Rare Earth Project

The information in this report relating to Exploration Drill Results at the Nechalacho Rare Earths Project is based on, and fairly represents, information and supporting documentation prepared for Vital Metals Limited by Dr. Natalie Pietrzak-Renaud. Dr. Pietrzak-Renaud is a Competent Person and a member of the Association of Professional Geoscientists of Ontario, Canada and the Northwest Territories and Nunavut Association of Professional Engineers and Geoscientists, and is a contract consultant for the Company. Dr. Pietrzak-Renaud 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 Person as defined in the 2012 Edition of the 'Australian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves'. Dr. Natalie Pietrzak-Renaud consents to the inclusion in the report of the matters based on his information in the form and context in which it appears.

ASX Listing Rule Information

This announcement contains information relating to Mineral Resource Estimates in respect of the Nechalacho Project extracted from ASX market announcements reported previously and published on the ASX platform on 4 April 2024. The Company confirms that it is not aware of any new information or data that materially affects the information included in the original market announcements and that all material assumptions and technical parameters underpinning the estimates in the original market announcements continue to apply and have not materially changed. The Mineral Resource estimate of 212.7Mt @ 1.17% TREO comprises 181.6. Mt @ 1.17% TREO Inferred, 24.1Mt @ 1.08% TREO Indicated and 7.0Mt @ 1.39% TREO Measured.

Appendix 1 - JORC Code, 2012 Edition – Table 1 report – Nechalacho Upper Zone

Section 1 Sampling Techniques and Data

(Criteria in this section apply to all succeeding sections.)

	JORC Code explanation	Commentary
Sampling techniques	• *Nature and quality of sampling (eg cut channels, random chips, or specific specialised industry standard measurement tools appropriate to the minerals under investigation, such as down hole gamma sondes, or handheld XRF instruments, etc). These examples should not be taken as limiting the broad meaning of sampling.* • *Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used.* • *Aspects of the determination of mineralisation that are Material to the Public Report.* • *In cases where 'industry standard' work has been done this would be relatively simple (eg 'reverse circulation drilling was used to obtain 1 m samples from which 3 kg was pulverised to produce a 30 g charge for fire assay'). In other cases more explanation may be required, such as where there is coarse gold that has inherent sampling problems. Unusual commodities or mineralisation types (eg submarine nodules) may warrant disclosure of detailed information.*	• Sampling of 2023 diamond drill core are half splits of drill core using a core splitter. • Samples were collected from the bastnaesite mineralisation with lengths ranging 0.35 to 2.45 metres. The typical sample length was 1.0 to 2.0 metres. The sampling lengths were dictated by the lithology of the core. • All drill core samples were crushed to 90% <2 mm, then 1 kg was riffle split. The 1 kg splits from the samples were then pulverized to 85% <75 µm. • The samples were assayed using ICP-MS for the REE. • The accuracy of the assaying has been validated through a combination of using standards with a known grade and inserting field blanks.
Drilling techniques	• *Drill type (eg core, reverse circulation, open-hole hammer, rotary air blast, auger, Bangka, sonic, etc) and details (eg core diameter, triple or standard tube, depth of diamond tails, face-sampling bit or other type, whether core is oriented and if so, by what method, etc).*	• HQ diameter core using standard tube was used for the 2023 drill program. As the holes were short and vertical no orientation was carried out on the core.
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.*	• Good core recovery was observed for the 2023 drill program. • The geological nature of the mineralization in the Upper Zone (is secondary alteration products associated with predominantly carbonates (i.e. bastnaesite, synchisite etc.) and lesser phophates (i.e. monazite) and silicates (i.e. allanite, fergusonite)No relationship has been identified 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*	• Geological drill logs are under review by an experienced professional geoscientist to produce to a standard to support a mineral resource

	JORC Code explanation	Commentary
	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.*	estimation. • For the 2023 drill program, core photographs are available. Select drill holes were re-photographed using high resolution photography in 2024. • All the half splits from the 2021 and 2022 drilling programs were retained with the drill core stored on site, as half core, and can be viewed. • Total length of the core for the 74 holes of the 2023 program is 6,664 m and the core was 100% logged.
Sub-sampling techniques and sample preparation	• *If core, whether cut or sawn and whether quarter, half or all core taken.* • *If non-core, whether riffled, tube sampled, rotary split, etc and whether sampled wet or dry.* • *For all sample types, the nature, quality and appropriateness of the sample preparation technique.* • *Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples.* • *Measures taken to ensure that the sampling is representative of the in situ material collected, including for instance results for field duplicate/second-half sampling.* • *Whether sample sizes are appropriate to the grain size of the material being sampled.*	• Half core splits were sampled for the 2023 drill program. • For each sampled interval the entire interval was half split to ensure a representative sample of the interval. The sampled core was crushed before assaying to ensure the material from the entire interval was analysed during the assaying process. • Duplicates of both the coarse-crushed (<2 mm) rejects and of the assay pulps were analysed and showed good reproducibility of the REE assays, indicating that both materials are sufficiently homogeneous. • The core sample intervals honour the contacts of the mineralization zones, thus providing adequate sample coverage.
Quality of assay data and laboratory tests	• *The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total.* • *For geophysical tools, spectrometers, handheld XRF instruments, etc, the parameters used in determining the analysis including instrument make and model, reading times, calibrations factors applied and their derivation, etc.* • *Nature of quality control procedures adopted (eg standards, blanks, duplicates, external laboratory checks) and whether acceptable levels of accuracy (ie lack of bias) and precision have been established.*	• The assay methods for the REE include lithium borate fusion followed by ICP-MS and are thus considered total. • External REE standards supplied by Avalon Advanced Materials Inc. and inserted in the field, and external REE standards inserted by the laboratory (ALS) were analysed with each batch of assays to ensure the assaying procedures gave accurate results. • Field blanks were inserted to monitor contamination; results were acceptable.
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.*	• The assay data was collated by Mercedes Rich and Dr. Natalie Pietzak-Renaud. P.Geo of Cheetah Resources. • The entire data set was received by email from ALS and converted to oxides. No assay data was manually inserted reducing the likelihood of human data entry errors. Assay data for rare earth elements was converted to rare earth oxides.

	JORC Code explanation	Commentary
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Location of data points	• *Accuracy and quality of surveys used to locate drill holes (collar and down-hole surveys), trenches, mine workings and other locations used in Mineral Resource estimation.* • *Specification of the grid system used.* • *Quality and adequacy of topographic control.*	• The 23 drill holes samples have been received for have been surveyed using a handheld GPS by the supervising geologist. The 2023 drill holes will be surveyed by a professional surveyor using more accurate surveying methods before any resource modelling is carried out. • The grid system used is UTM NAD83 Zone 12 N, currently the standard system used in the area.
Data spacing and distribution	• *Data spacing for reporting of Exploration Results.* • *Whether the data spacing and distribution is sufficient to establish the degree of geological and grade continuity appropriate for the Mineral Resource and Ore Reserve estimation procedure(s) and classifications applied.* • *Whether sample compositing has been applied.*	• The drill hole spacing is approximately 50 by 50 m. • The drill hole spacing is considered to be adequate for the indicated resource confidence category. • Sample compositing will be applied when using the data for resource estimation.
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 2023 drill-holes were drilled at -90 to intersect the horizontally layered REO mineralisation at 90 degrees to achieve unbiassed sampling.
Sample security	• *The measures taken to ensure sample security.*	• All assay samples were sealed using zip locks, and multiple samples were placed in rice bags sealed with zip locks. Independent lab verified sealed sample integrity upon receipt. • Analyses for elements such as rare earths, niobium and zircon are unlikely to be altered as a result of insecurity of samples such as contamination.
Audits or reviews	• *The results of any audits or reviews of sampling techniques and data.*	• As the drilling is only recent no audits have been carried out on the sampling techniques and data.

Section 2 Reporting of Exploration Results

(Criteria listed in the preceding section also apply to this section.)

	JORC Code explanation	Commentary
Mineral tenement and land tenure status	• *Type, reference name/number, location and ownership including agreements or material issues with third parties such as joint ventures, partnerships, overriding royalties, native title interests, historical sites, wilderness or national park and environmental settings.* • *The security of the tenure held at the time of reporting along with any known impediments to obtaining a licence to operate in the area.*	• The Upper Zone is located on Mining Lease NT-3178 registered to Avalon Advanced Materials Inc. and expires 21 May 2027. On June 24, 2019, Avalon Advanced Materials Inc. announced that it has entered into a definitive agreement with Cheetah Resources Pty Ltd. to transfer ownership of the near-surface mineral resources on the Property, which includes the Upper Zone (see Avalon News Release NR 19-04). On October 30, 2019, it was announced that Avalon received the full payment from Cheetah Resources Pty Ltd. for the near-surface resources on the Nechalacho rare earth elements property at Thor Lake (see Avalon News Release NR 19-04). On February 6, 2020, the completion of a co-ownership agreement was announced, under which Cheetah Resources Pty Ltd. acquired ownership of the near-surface resources on the property, including the Upper Zone, and a jointly-owned special purpose vehicle to hold and manage the permits and authorizations to operate at the site was created (see Avalon News Release NR 20-01). • Operating licenses in the Northwest Territories are subject to the approvals by provincial and environmental regulators and require consultation with local communities.
Exploration done by other parties	• *Acknowledgment and appraisal of exploration by other parties.*	• The historic resource development drilling was carried out by Avalon Materials Inc with the bulk of this drilling carried out between 2007 and 2013. • The geologist who supervised the historic work, J.C. Pedersen, P. Geo, is an experienced geologist in the rare earths field and is well known as a reliable geoscientist to the present parties. He also supervised the 2021 and 2022 drilling programs and some of the 2023 drilling program.
Geology	• *Deposit type, geological setting and style of mineralisation.*	• The Upper Zone is a polymetallic (REE, Nb, Zr) deposit hosted by the Thor Lake Syenite. It is a large layered magmatic deposit with overprinting alteration.

	JORC Code explanation	Commentary
		• REO mineralization in the Lake Zone is layered in separate zones of light rare earths at the top of the deposit (Upper Zone) and a mixture of light and heavy REO mineralisation in the lower part of the deposit (Basal Zone).

Drill hole Information	• *A summary of all information material to the understanding of the exploration results including a tabulation of the following information for all Material drill holes:*
	  ○ *easting and northing of the drill hole collar*
	  ○ *elevation or RL (Reduced Level – elevation above sea level in metres) of the drill hole collar*
	  ○ *dip and azimuth of the hole*
	  ○ *down hole length and interception depth*
	  ○ *hole length.*
	• *If the exclusion of this information is justified on the basis that the information is not Material and this exclusion does not detract from the understanding of the report, the Competent Person should clearly explain why this is the case.*
		• The historic data set for the Lake Zone includes 582 diamond drill holes with many of them in fans from the surface utilising a small number of drill pads to target the basal zone which begins approximately 80-100 metres below the surface. The historic drill hole data gave poor representation of the Upper Zone as the fans resulted in many holes close together in clusters and wide spaces between the clusters.
		• The historic drill holes ranged from 1.5 to 1070 m in length with the bulk of the drill holes between 150 and 300 m long for a total length of 120,062 m.
		• See Appendix 2 and Table 1 for the details of each of the holes and the assay intervals in the 2023 drilling program.

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.* • *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.*	• Where there was more than 1 assay for an interval a weighted average was used for the grade of the interval. The weighted average was calculated by using the following formula. Interval grade= (Sum of (Assay length X assay grade))/(total interval length) • No capping was applied as no outliers were observed. • Nd2O3 and Pr2O3 has been reported as 23.9% of the total REO. This was calculated by summing the Nd2O3 and Pr6O11 assay grades and dividing by the sum of the Total TREO grades (n=3683).
Relationship between mineralisation widths and intercept lengths	• *These relationships are particularly important in the reporting of Exploration Results.* • *If the geometry of the mineralisation with respect to the drill hole angle is known, its nature should be reported.* • *If it is not known and only the down hole lengths are reported, there should be a clear statement to this effect (eg 'down hole length, true width not known').*	• For the 2023 drilling the intervals reported closely approximate the true width of the mineralisation as most holes are interpreted to intersect at right angles to the dip of the mineralisation. • The sample intervals are suitable for the mineralisation. • The drill holes interpreted to intersect the deposit at approximately right angles to the orientation of the orebody which is the ideal orientation. • The orientation of the holes to the mineralization is well established.

	JORC Code explanation	Commentary
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.*	• See figures in this ASX release for map of collars and a 3D sectional view.
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.*	• All intervals greater than and equal to 4 metres in length and 1% TREO are reported in Table 1. Individual intervals of less than 4 meters are identified to highlight some variability in grade distribution.
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.*	• Not applicable as no other exploration data is available. • Deleterious and contaminating materials are not present except for some thorium as is commonly present in rare earth deposits and well established with respect to levels.
Further work	• *The nature and scale of planned further work (eg tests for lateral extensions or depth extensions or large-scale step-out drilling).* • *Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive.*	• The 2023 drilling program should outline enough resources in the Measured and Indicated categories to allow mining and processing studies to be carried for a pre-feasibility study. If the mining and processing studies successfully show that mining is economically viable then further close space drilling will be carried out to further expand the Measured and Indicated resources in the Tardiff Zone where there are currently Inferred mineral resources and indicated mineral resources.

Appendix 2: List of the latest parcel of drill-holes for the 2023 resource definition drilling. Note all holes were drilled vertically.

Hole ID	Eastings	Northings	Elevation (m)	Depth (m)
L23-628	417209	6886158	233	90
L23-632	417212	6886213	234	90
L23-633	416957	6886401	235	90
L23-637	417260	6886162	238	90
L23-638	416959	6886447	235	90
L23-639	417156	6886327	234	90
L23-640	417256	6886207	232	90
L23-642	417309	6886204	234	90
L23-643	417056	6886349	236	90
L23-644	417056	6886303	238	90
L23-645	417309	6886153	231	90
L23-647	417060	6886253	239	90
L23-649	417010	6886247	235	90
L23-652	417457	6886255	231	90
L23-656	417010	6886155	244	90
L23-658	417061	6886155	240	90
L23-659	417307	6886256	244	90
L23-660	416989	6886081	241	90
L23-664	417360	6886385	241	90
L23-666	417357	6886428	236	90
L23-674	417407	6886453	234	90
L23-677	417411	6886500	233	90
L23-682	417514	6886412	239	90
L23-683	417460	6886411	243	90