Quarterly Report – March 2024

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Highlights

- Exceptional drill results outside the existing Caldeira Inferred Resources including elevated levels of Terbium and Dysprosium (ASX release 30 January 2024):
  - confirms exceptional prospectivity of the wider Caldeira project; and
  - significant zones of enriched Heavy Magnetic Rare Earth Oxides[1] (HMREO) discovered with far higher than the global average of HMREO 30ppm.
- New test work closes gap on impurity removal and precipitation losses from historic Caldeira test work.

  ANSTO metallurgical test work delivers significantly improved recoveries of key basket elements including:
  - **Praseodymium (Pr) to 74%**
  - **Neodymium (Nd) to 73%**
  - **Dysprosium (Dy) to 50%**
  - **Terbium (Tb) to 53%**
- **8% increase** of recovered TREO per tonne of ROM feed for increased cashflow and lower OPEX metrics.
- United States Export-Import Bank provides non-binding letter of support for up to US$250m.
- Management Team further strengthened with the appointment of Mr Stuart Gale as Chief Financial Officer
- Meteoric joins the S&P / ASX 300 Index.

Meteoric Resources NL (**ASX: MEI**) (**Meteoric** or **the Company**) is pleased to provide its Quarterly Report for the three-month period ending 31st March 2024.

During the period, Meteoric continued to diligently advance exploration and metallurgical test work at its wholly owned Caldeira Rare Earth Ionic Clay Project in the State of Minas Gerais in Brazil.

The Caldeira Project is a globally significant Rare Earth elements project, enhanced by its proximity to separation facilities in the Western Hemisphere. Meteoric is gearing up to mine and process high value Neodymium, Praseodymium (NdPr) and the highly sought Dysprosium and Terbium. These four magnetic rare earth elements are critical for the generation of essential clean energy for the future.

1 HMREO = Terbium Oxide (Tb_4O_7) and Dysprosium Oxide (Dy_2O_3)

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Caldeira Project

Exceptional Results Returned from Drilling Program

Throughout the quarter, Meteoric continued exploration drilling at the Caldeira Project outside the Inferred Resource areas with every hole drilled intercepting significant clay hosted rare earth mineralisation. Through exploration and infill drilling, the Company is aiming to grow its existing Resource of 409Mt @ 2,626 ppm TREO[2] (Total Rare Earth Oxides) at a 1,000ppm cut off.

Following an initial Phase 1 diamond drill program targeting 17 high priority (TREO grades) soil anomalies located on licenses outside the Company's existing Inferred Resources, Meteoric commenced a subsequent 36-hole (for 2,017m) program to:

- Step out around exceptional results returned from Phase 1 (notably CVSDD001 with 149.5m @ 8,912 ppm TREO) from surface.
- Test possible extensions of high-grade mineralisation adjacent to the existing Inferred Resource areas to expand potential mining areas; and
- Test second order soil anomalies on additional exploration licenses.

Additionally, the program focused on identifying areas of enriched HMREO mineralisation (particularly Terbium and Dysprosium), where Meteoric believes incremental increases will add significantly to the value of the Company's "basket" of REE assets.

Outstanding TREO[2] intercepts reported from this drilling program include:

- PIADD001 – **143m @ 6,406ppm TREO** from surface, with
  - **6m @ 10,378ppm TREO** [9m],
  - **6m @ 11,664ppm TREO** [21m]
  - **8m @ 23,946ppm TREO** [85m]
- CVSDD0004 – **200m @ 3,387ppm TREO** from surface including:
  - **16m @ 4,199ppm TREO** [3m] and **28m @ 6,859ppm TREO** [31m], with
  - **5m @ 11,888ppm TREO** [36m] and **5m @ 10,726ppm TREO** [44m]
- CVSDD0005 – **201m @ 3,451ppm TREO** from surface including:
  - **6m @ 10,417ppm TREO** [1m]
  - **10m @ 7,180ppm TREO** [65m]
- CERDD0004 – **67m @ 2,026ppm TREO** from surface including:
  - **17m @ 3,295ppm TREO** [8m]
- COQDD0002 – 24m @ 4,127ppm TREO [1m]
- CVSDD0002 – **71m @ 2,514ppm TREO** from surface including:
  - **7m @ 7,594ppm TREO** [2m], with
  - **3m @ 14,564ppm TREO** [6m], and
  - **34m @ 5,454ppm TREO** [80m]
- AGODD0002 - 37m @ 3,143ppm TREO from surface.
- BDPDD0002 - 31m @ 5,727ppm TREO from surface, with 4m @ 10,454ppm TREO [26m]
- BDPDD0003 - 25m @ 5,391ppm TREO [6m], with 3m @ 10,685ppm TREO [22m]

[2] TREO = La_2O_3 + CeO_2 +Pr_6O_{11} + Nd_2O_3 + Sm_2O_3 + Eu_2O_3 + Gd_2O_3 + Tb_4O_7 + Dy_2O_3 + Ho_2O_3 + Er_2O_3 + Tm_2O_3 + Yb_2O_3 + Lu_2O_3 + Y_2O_3

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Additionally, significant zones of enriched HMREO have been discovered, with grades far higher than the global average of 30ppm reported in Inferred Resources:

- PIADD0001 - 143m @ 6,406ppm TREO from surface - **110 ppm HMREO**
    - 8m @ 23,946ppm TREO [85m] - **1,170 ppm HMREO**
- CVSDD0004 - 200m @ 3,387ppm TREO [0m] - **62 ppm HMREO**
- CVSDD0005 - 201m @ 3,451ppm TREO [0m] - **55 ppm HMREO**
- COQDD0002 - 24m @ 4,127ppm TREO [1m] - **52 ppm HMREO**

Results from 31 of the holes drilled are detailed in Table 1 of ASX Announcement 30 January 2024, “Exceptional REE Drill Results Outside Inferred Resources”.

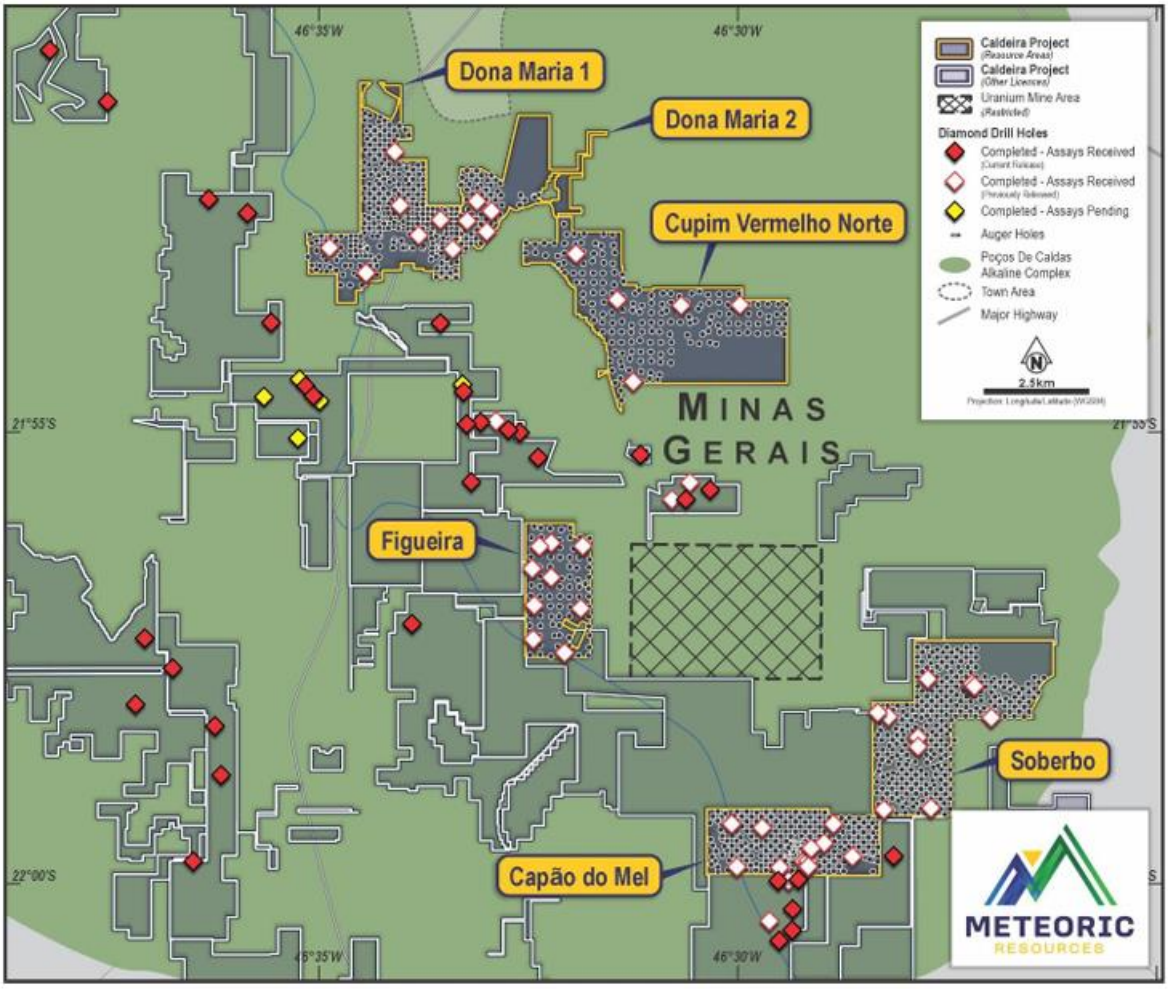

Figure 1: *Meteoric Caldeira REE Project – DD Drill Hole Location Plan*

Results from the program highlight the Southern Caldeira area (south of Inferred Resources at Capão do Mel & Soberbo) demonstrates good potential to add significant high-grade resources, immediately adjacent to Capão do Mel, an area targeted for early production due to its high-grade TREO and excellent recoveries.

The Central Caldeira area (which contains existing Inferred Resources at Cupim Vermelho & Figueira) continues to demonstrate an encouraging trend of increased depths of mineralised clay with consistently high TREO grades, and the observation of enriched HMREO. The HMREO grades reported, ranging from 33ppm up to 145ppm, is almost five (5) times the global average of 30ppm reported in the Inferred Resources and is seen to occur at shallow depths.

These results suggest the area has immense potential to not only add new resources in Central Caldeira, but also increase Terbium and Dysprosium grades which will enhance the economic value of the total resources and could add significant value to the wider Caldeira Project.

Diamond drilling continues testing further new areas alongside completing additional drilling inside the existing Resource for the collection of crucial mining data such as: specific gravity, rock quality and metallurgical sampling.

Metallurgical Testwork

During the quarter Meteoric received the initial results of the metallurgical test work being carried out at the Caldeira REE Project by Australia's leading laboratory in ionic clay leaching – Australian Nuclear Science and Technology Organisation (**ANSTO**). This program has been designed to establish metallurgical recoveries and assist with process flowsheet development.

Meteoric was thrilled to advise that ANSTO had successfully improved on previous testwork and produced the Caldeira Project's first saleable Mixed Rare Earth Carbonate (MREC) product that is low in impurities and represents significantly improved metallurgical recoveries.

ANSTO Testwork Overview

A representative master composite from Capão do Mel (**CDM**) has been compiled that best reflects the average ore grades and chemistry over the first six years of the proposed high-grade mining strategy for the Capão de Mel license.

This sample is currently undergoing leaching, impurity removal and MREC precipitate optimisation work at ANSTO, as previously reported in ASX announcements on the 26th June, 26th September and 8th December 2023, culminating in a continuous piloting phase towards mid-2024.

First Mixed Rare Earth Carbonate Produced

Meteoric has now successfully produced its first MREC product at ANSTO. Within the MREC, the contained Rare Earth Oxides (REO) have a grade of 57.3% and a very high purity level of 98%.

The test work was undertaken from a 25kg subsample of the 250kg Capão de Mel (CDM) master composite sample and through the Ammonia Sulphate (AMSUL) extraction, impurity removal and carbonate precipitation process has generated approximately 50 grams of a high quality MREC product.

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New Recoveries and Comparison to Previous work

Both JOGMEC (historic) and Meteoric composites underwent a standard AMSUL wash at pH 4.0, 0.5M ammonium sulphate, ambient temperature and 30 minutes leaching time. However, under the ANSTO regime the pH modifier used in the impurity removal and rare earth precipitation steps were different to those used with the JOGMEC program.

The impurity removal and precipitation to MREC steps were the source of most of the losses experienced in the previous JOGMEC test work phase and where Meteoric has experienced significant gains, the impacts of which can be seen below in Table 1 and Figure 3. Improved recoveries translate to additional recovered TREO kilograms per tonne of ROM feed.

***Table 1**: Capaõ do Mel Composite Recoveries to MREC*

Rare Earth Oxide	JOGMEC Recoveries	MEI Recoveries	% Difference
La_2O_3	62	76	24
CeO2	4	<1	-92
Pr6O11	**52**	**74**	**42**
Nd2O3	**64**	**73**	**14**
Sm2O3	52	65	27
Eu2O3	54	61	14
Gd2O3	56	64	15
Tb4O7	**47**	**53**	**12**
Dy2O3	**39**	**50**	**29**
Ho2O3	26	43	63
Er2O3	29	37	28
Tm2O3	25	33	32
Yb2O3	18	25	42
Lu2O3	21	24	14
Y2O3	37	50	35
TREO	**42**	**53**	**28**
Magnets	**60**	**73**	**21**

Figure 4: Recovered kilograms TREO per tonne ROM feed. New results significantly impact increased REE production rates

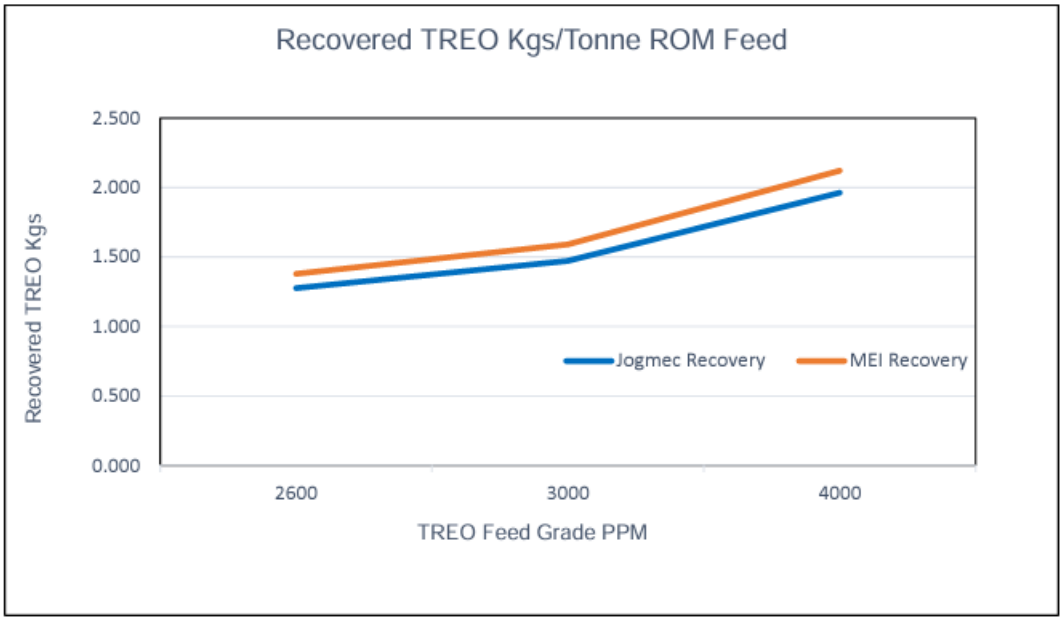

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***Table 2**: Rare earth distribution in the MREC.*

Rare Earth Oxide	% Distribution
La_2O_3	57.6
CeO_2	1.4
Pr_6O_{11}	8.6
$Nd2_2O_3$	22.0
Sm_2O_3	2.4
Eu_2O_3	0.6
Gd_2O_3	1.5
Tb_4O_7	0.2
Dy_2O_3	0.8
Ho_2O_3	0.1
Er_2O_3	0.3
Tm_2O_3	0.01
Yb_2O_3	0.1
Lu_2O_3	0.01
Y_2O_3	4.5
Total	**100.0**

***Table 3**: Weight % of impurities in MREC expressed as oxides.*

Impurity	Wt %
Calcium (Ca)	0.55
Aluminium (Al)	0.36
Nickel (Ni)	0.29
Zinc (Zn)	0.19
Silica (Si)	0.14
Iron (Fe)	0.11
Uranium(U)	0.0057
Thorium (Th)	0.00004
Others	0.4
TOTAL	**2.0%**

Within the MREC, the Rare Earth Oxides (REO) have a contained grade of 57.3% and have a very high purity level of 98%. The remaining 2% consist of impurities as shown in Table 3.

The impurities compare well with similar saleable MREC products developed by other projects. While unoptimised, this bodes well for further reduction of impurities over time with additional test work programs.

Master Composite Details

The 250kg Capão do Mel master composite was assembled from ten diamond drill holes using 47 interval composites (ranging from 2.9 m – 4.4m), shown in Table 4 and Figure 5.

The assayed head grade for the master composite of 4,439 ppm TREO was in good agreement with the calculated head grade of 4,299 ppm estimated from the individual interval composites used to make the master composite. The calculated weighted average recovery to leach from the individual interval composites used is estimated from the diagnostic leaches at 74% for the MREE.

The composite was assembled to best match the proposed high grade feed strategy from the initial six-year mine plan. All intervals in the diamond drill holes were selected except for CDMDD001 11.3-14m and CDMDD002 15.2-18.5m, essentially because of a lack of samples for those intervals. In addition, intervals were not selected where magnet recovery was less than 30% leach extractions, typically occurring at the bottom of the clay profile and would therefore follow a natural mining sequence.

The JOGMEC bulk sample reported in the ASX announcement on the 20th December 2022 was a higher-grade sample at 4,928ppm TREO and was constructed from 184 x 1m intervals from 41 auger holes across CDM, however no consideration was given to a mine plan at that time.

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Table 4: CDM Master composite plan

Drill Hole	Interval			Assayed Head (ppm)		Lithology	% Leach E				
							Pr	Nd	Tb	Dy	Magnets
	From	To	M	TREO	MREE		%	%	%	%	%
CDMDD001	2.2	5.5	3.3	7,418	1,631	Clay	67	69	44	36	67
	5.5	8.5	3.0	5,021	1,063	Clay	49	52	30	28	50
	8.5	11.3	2.8	6,378	1,380	Clay	64	66	51	47	65
	14.0	17.5	3.5	5,549	1,106	Clay	67	70	56	54	69
CDMDD002	2.0	5.0	3.0	2,639	344	Clay	43	44	24	24	43
	5.0	8.0	3.0	2,940	673	Clay	44	45	19	14	43
	8.0	11.0	3.0	5,596	1,415	Clay	70	77	49	48	74
	11.0	15.2	4.2	5,908	1,711	Clay	77	84	62	58	81
CDMDD004	2.6	6.0	3.4	7,296	2,235	Clay	83	89	66	61	87
	6.0	9.0	3.0	10,468	2,930	Clay	86	92	72	71	90
	9.0	12.0	3.0	7,649	2,220	Transition 1	83	90	69	68	87
	12.0	16.4	4.4	3,587	795	Transition 1	29	31	28	26	30
CDMDD005	2.0	5.0	3.0	9,621	2,316	Clay	49	53	41	40	52
CDMDD006	3.0	6.0	3.0	2,545	295	Clay	37	38	13	10	36
	6.0	7.9	1.9	2,920	332	Clay	47	46	10	10	42
	7.9	10.8	2.9	2,947	381	Clay	82	79	27	23	76
	10.8	13.0	2.2	1,880	313	Clay	65	64	23	19	62
	13.0	15.0	2.0	1,905	397	Clay	76	74	39	35	73
	15.0	19.0	4.0	2,956	454	Transition 1	51	50	14	11	48
	19.0	23.0	4.0	2,927	477	Transition 1	44	43	15	10	41
	23.0	27.0	4.0	3,317	708	Transition 1	44	43	34	27	43
	27.0	30.0	3.0	2,330	502	Transition 1	36	36	18	19	35
CDMDD007	3.0	5.8	2.8	3,615	680	Clay	67	67	49	44	66
	5.8	8.0	2.2	3,200	492	Clay	65	65	50	45	64
	8.0	11.0	3.0	1,865	237	Clay	52	53	34	26	52
	11.0	14.0	3.0	1,825	239	Clay	57	61	32	30	59
	14.0	17.0	3.0	2,526	349	Clay	54	57	32	30	55
	17.0	20.0	3.0	2,482	356	Clay	48	49	28	26	47
	20.0	23.0	3.0	2,158	242	Clay	52	54	28	22	51
CDMDD008	1.7	4.0	2.3	4,778	741	Clay	63	63	39	39	62
	4.0	7.0	3.0	5,460	1,333	Clay	70	76	63	64	74
	7.0	10.0	3.0	2,214	414	Clay	63	67	62	65	65
CDMDD009	2.3	4.8	2.5	7,431	1,542	Clay	72	75	59	57	73
	4.8	8.0	3.2	3,519	705	Clay	74	77	55	55	75
	8.0	11.0	3.0	1,875	374	Clay	68	77	38	36	71
	11.0	14.0	3.0	1,730	256	Transition 3	31	34	18	10	32
CDMDD010	2.4	6.0	3.6	4,202	848	Clay	77	80	47	43	78
	6.0	9.0	3.0	5,180	545	Clay	62	69	42	40	66
	9.0	11.8	2.8	2,728	349	Clay	57	65	28	20	59
	11.8	15.0	3.2	3,371	262	Clay	55	57	10	6	50
	15.0	19.3	4.3	3,516	383	Clay	51	53	18	12	50
	19.3	22.8	3.5	2,796	475	Transition 3	38	41	15	12	39
CDMDD0011	2.0	5.0	3.0	13,351	3,888	Clay	95	95	88	92	95
	5.0	8.5	3.5	13,202	3,566	Clay	88	95	84	89	95
	8.5	11.0	2.5	5,519	1,484	Clay	92	95	84	87	95
	11.0	13.7	2.7	4,752	1,192	Clay	84	90	74	79	95
	13.7	18.0	4.3	4,486	919	Transition 3	51	57	50	48	55
Weighted average				**4,299**	**867**		**72**	**76**	**54**	**51**	**74**

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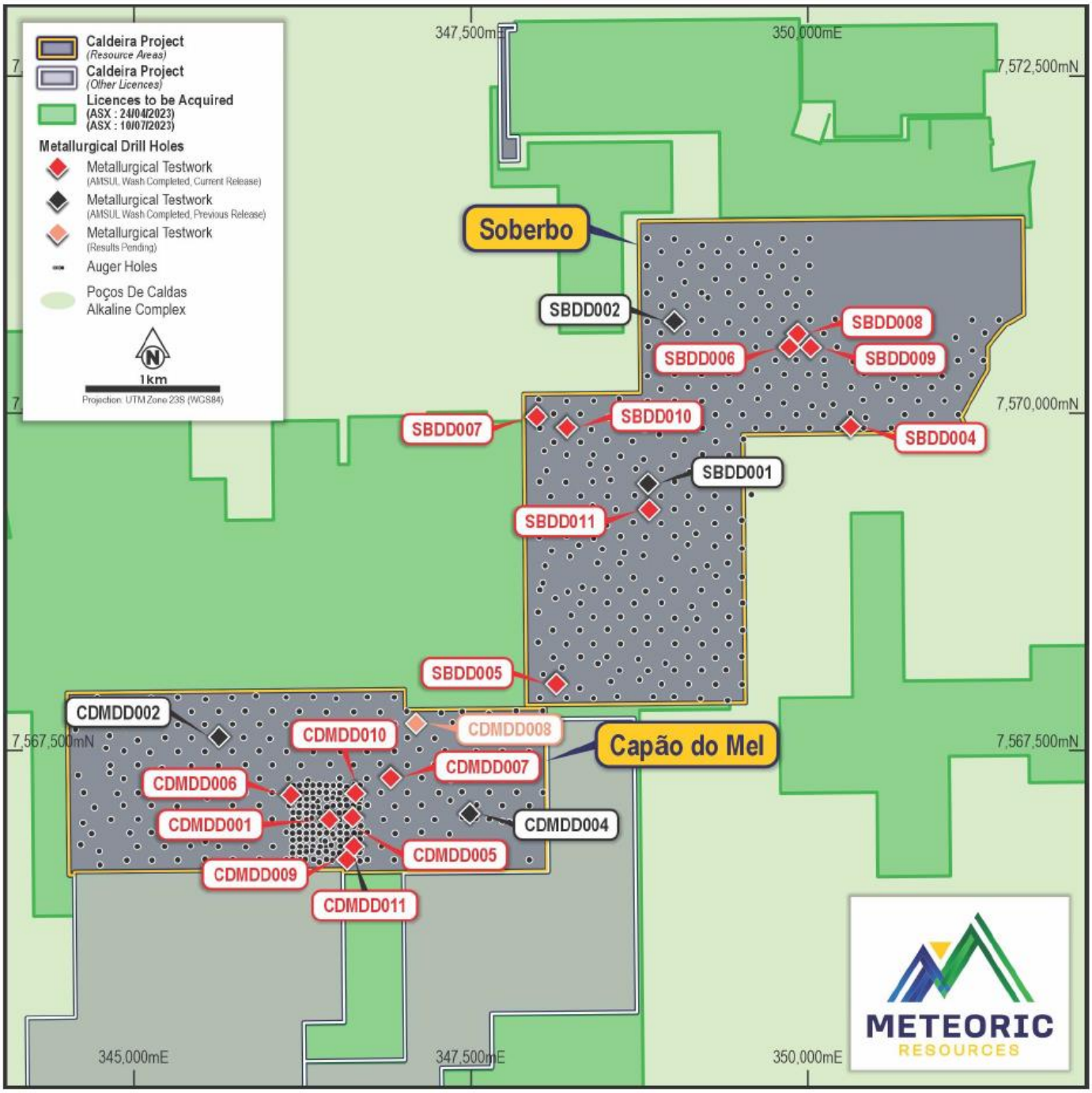

Figure 5: *Composite sample location plan.*

Next Steps

Leaching Program

A master composite of the CDM tenement representative of the LOM was constructed from all of the metallurgical drill holes that returned satisfactory metallurgical performance as shown in the CDM composite plan. The leaching program is well advanced in evaluating different lixiviants, lixiviant concentration, % solids and pH. Some of the optimised leach parameters have been used to make the first batch of MREC, however further optimisation is still required.

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Optimisation of Impurity Removal

Some initial impurity removal sighter test profiling has been completed at different pH points to understand the optimum pH at which impurity removal is maximised whilst minimising the coprecipitation of rare earths. The first batch of MREC was produced trying to focus on product quality as a priority whilst recovery was of secondary importance. Once the leaching program has identified the optimum parameters, further impurity removal optimisation will be performed to improve the rejection of deleterious elements such as aluminium, iron, silica, calcium, thorium and uranium, whilst maximising the recovery of the rare earths. This test work will aim to evaluate impurity removal conditions including pH, alkali type, temperature, residence time, % solids and solid liquid separation performance.

Rare Earth Precipitation

Further optimisation is still required once the upstream unit processes have been optimised sequentially.

Following the impurity removal program, rare earth precipitation tests will be performed to further improve the current MREC product. The test work will evaluate the type of precipitation agent, pH, temperature, residence time, % solids and solid liquid separation performance.

Schedule

The ANSTO bench top metallurgical scope is now approximately 50% complete. It will run until May 2024, culminating in a continuous pilot plant trial at ANSTO. The mini pilot will process a Capão de Mel ore feed that is representative of the first 5-6 years of mining and obtained from recent infill drilling samples.

Ongoing Project Development Studies

Simultaneously Meteoric continues its Project Development activities with multiple project development packages continuing, including:

- Resource estimation for the Soberbo licence underway
- Drilling will soon be completed at Capão de Mel, resulting in a series of resource updates in the June 2024 quarter.
- Engineering studies with Ausenco continue with financial analysis to be completed at the completion of the Soberbo and Capão do Mel resource updates.

Underpinning these activities is the Company's ongoing progress with permitting, being undertaken by environmental consultants, Alger Consulteria. Alger continues to work closely with Ausenco and remains on track for the tabling of the Environmental Impact Statement this year for the Licença Prévia (**LP**) and construction permits due in late 2025.

Mineral Resource Statement – Caldeira Project (ASX:MEI 1/5/2023)

Table 5: *Caldeira REE Project 2023 Mineral Resource Estimate– by licence at 1,000ppm TREO cut-off*

Licence	JORC Category	Tonnes Mt	TREO ppm	Pr_6O_{11} ppm	Nd_2O_3 ppm	Tb_4O_7 ppm	Dy_2O_3 ppm	MREO ppm	MREO/TREO %
Capão do Mel	Inferred	68	2,692	148	399	4	22	572	21.3%
Cupim Vermelho Notre	Inferred	104	2,485	152	472	5	26	655	26.4%
Dona Maria 1 & 2	Inferred	94	2,320	135	404	5	25	569	24.5%
Figueira	Inferred	50	2,811	135	377	5	26	542	19.3%
Soberbo	Inferred	92	2,948	190	537	6	27	759	25.8%
Total	**Inferred**	**409**	**2,626**	**154**	**447**	**5**	**25**	**631**	**24.0%**

TREO = $La_2O_3 + CeO_2 + Pr_6O_{11} + Nd_2O_3 + Sm_2O_3 + Eu_2O_3 + Gd_2O_3 + Tb_4O_7 + Dy_2O_3 + Ho_2O_3 + Er_2O_3 + Tm_2O_3 + Yb_2O_3 + Lu_2O_3 + Y_2O_3$
MREO = $Pr6O_1 + Nd_2O_33 + Tb_4O_7 + Dy_2O_3$

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Other Projects

Palm Springs Gold Project, WA

There was no activity reported at Palm Springs during the March Quarter.

Webb JV (Ownership 11.85% MEI / 88.5% CGN Resources)

The Webb JV is focused on the evaluation of a large kimberlite field comprising 280 nulls-eye targets and covers an area of 400km^2. About 23% of the targets have been drill tested with 51 kimberlite bodies identified with planning, permitting and contractor negotiations occurring during the quarter in advance of a substantial 2024 exploration campaign.

Warrego North IOCG Project (Ownership 49% MEI / 51% Chalice Gold Mines Limited)

Located in the Northern Territory, the Warrego North Project is approximately 20km northwest of the historical high-grade Warrego Copper-Gold Mine, the largest deposit mined in the area producing 1.3 Moz Au and 90,000 tonnes of copper. Chalice Gold Mines Limited (ASX:CHN) can earn up to 70% interest in the project by sole funding $800,000. There was no activity reported by Chalice during the quarter.

Corporate

Corporate

Senior Debt Funding Process Initiated

In March, Meteoric advised that with the support of Sprott Capital Partners, it had engaged Woodford Resources of Washington D.C. for the initial phase of seeking Senior Debt Financing for the Caldeira REE Project. This process commenced as a result of the Company receiving considerable interest from both Export Credit Agencies and government lenders as it has advanced Caldeira towards development and subsequent production.

Through this process, Meteoric has now received a non-binding Letter of Interest from the United States, Export-Import Bank (**EXIM**). Any financing support from EXIM following the Letter of Interest is subject to EXIM's policies, procedures, credit requirements, and consideration by EXIM's Board of Directors

The indicative terms of the potential financing are as follows:

- **Facility amount of up to US$250M for United States origin equipment, goods and services.**

- **Subject to, but not limited to, typical conditions for financing but not yet defined.**
- **The willingness and interest of both parties to progress to a binding debt arrangement.**

Meteoric continues to advance all aspects of the Caldeira Project, in particular, permitting, resource confidence, metallurgy and engineering studies, which are all crucial to the progression of the EXIM due diligence process as Meteoric targets a Financial Investment Decision (FID) late in 2025.

In the event that financing is approved by EXIM, the US$250M EXIM facility has the potential to cornerstone a broad funding mix for the Caldeira Project. Meteoric continues to work with EXIM and other potential financiers in this regard.

CFO Appointment

Meteoric has further strengthened its Management Team with the appointment of Mr Stuart Gale as Chief Financial Officer.

Stuart joins Meteoric from Mineral Resources' Lithium Division (which operates three of the world's largest lithium mines) where he was CFO. Prior to this he was Managing Director and CEO of Resolute Mining Limited, a West African focused gold mining company with significant gold operations in Mali and Senegal together with a prospective exploration portfolio through-out the region.

Stuart spent nearly 10 years at Fortescue during its ramp up to full scale production across its Chichester and Solomon operations and held responsibilities for funding, risk, investor relations and all aspects of financial management. Stuart has previously held senior executive positions at Wesfarmers including as Chief Financial Officer of Wesfarmers Energy Limited and General Manager Group Accounting at Wesfarmers Limited.

With 20 years' experience in the resources sector as both a CEO and CFO, Stuart maintains critical experience in debt and equity capital markets together with the development of key strategic initiatives to support the growth and ongoing operational delivery for Meteoric.

Stuart is a Fellow of the Institute of Chartered Accountants in Australia, a Graduate of the Australian Institute of Company Directors and a Fellow of Leadership Western Australia.

Details of Stuart's remuneration were set out in Appendix 1 of ASX Announcement 25/3/24 "Appointment of Chief Financial Officer".

General Meeting

Meteoric held its General Meeting on Wednesday 27th March where all resolutions were duly passed. For full results of the resolutions see ASX Announcement 27 March 2024, "Results of General Meeting".

ASX Additional Information

Meteoric provides the following information pursuant to ASX Listing Rule requirements:

1. ASX Listing Rule 5.3.1: Exploration and Evaluation Expenditure spend during the March Quarter was $4.06M. Full details of exploration activity during the Quarter are set out in this report.

2. ASX Listing Rule 5.3.2: There were no substantive mining production and development activities during the Quarter.

3. ASX Listing Rule 5.3.5: Payment to related parties of the Company and their associates during the Quarter was $368,000 cash.

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End Notes

The information contained in this announcement related to the Company's past exploration results is extracted from, or was set out in, the following ASX announcements which are referred to in this Quarterly Activities Report:

- The report released 30 January 2024, "Exceptional REE Drill Results Outside Inferred Resources"
- The report released 29 February 2024, "First Mixed Rare Earth Carbonate (MREC) Produced at Caldeira"
- The report released 1 March 2024, "S&P DJI Announces March 2024 Quarterly Rebalance"
- The report released 25 March 2023, "Appointment of Chief Financial Officer"
- The report released 21 March 2024, "Senior Debt Process Initiated for Caldeira REE Project"
- The report released 27 March 2024, "Results of Meeting"

This release has been approved by the Board of Meteoric Resources NL.

For further information, please contact:

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The information in this announcement that relates to exploration results is based on information reviewed, collated and fairly represented by Dr Carvalho a Competent Person and a Member of the Australasian Institute of Mining and Metallurgy and a consultant to Meteoric Resources NL. Dr. Carvalho has sufficient experience relevant to the style of mineralisation and type of deposit under consideration, and to the activity which has been undertaken, to qualify as a Competent Person as defined in the 2012 Edition of the Joint Ore Reserves Committee (JORC) Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves. Dr. Carvalho consents to the inclusion in this report of the matters based on this information in the form and context in which it appears.

The information in this announcement that relates to the metallurgical results were compiled by Tony Hadley who is a permanent employee of Meteroic resources and is a Member of the Australian Institute of Mining and Metallurgy (AusIMM). Mr. Hadley has sufficient experience that is relevant to the metallurgical testwork which was undertaken to qualify as a Competent Person as defined in the 2012 JORC Code. Mr. Hadley consents to the inclusion in this announcement of the matters based on the information in the form and context in which it appears.

The information in this release that relates to Mineral Resource Estimates was prepared by BNA Mining Solutions and released on the ASX platform on 1 May 2023. The Company confirms that it is not aware of any new information or data that materially affects the Mineral Resources in this publication. The Company confirms that all material assumptions and technical parameters underpinning the estimates continue to apply and have not materially changed. The Company confirms that the form and context in which the BNA Mining Solutions findings are presented have not been materially modified.

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Appendix 1 Tenement Holdings

TENEMENT HOLDINGS AS AT 31 MARCH 2024				
Tenement	Status	Project	Ownership %	Change in Quarter
E80/4407	Granted	Webb JV	11.5%	-
E80/4815	Granted	Webb JV	11.5%	-
E80/5121	Granted	Webb JV	11.5%	-
E80/5471	Granted	Webb JV	11.5%	-
E80/5496	Granted	Webb JV	11.5%	-
E80/5499	Granted	Webb JV	11.5%	-
E80/5573	Granted	Webb JV	11.5%	-
E80/5573	Application	Webb JV	11.5%	-
EL23764	Granted	WARREGO NORTH	49%	-
M80/0106	Granted	PALM SPRINGS	97%	-
M80/0315	Granted	PALM SPRINGS	97%	-
M80/0418	Granted	PALM SPRINGS	100%	-
P80/1766	Granted	PALM SPRINGS	100%	-
P80/1768	Granted	PALM SPRINGS	100%	-
P80/1839	Granted	PALM SPRINGS	100%	-
P80/1854	Granted	PALM SPRINGS	100%	-
P80/1855	Granted	PALM SPRINGS	100%	-
E80/4856	Granted	PALM SPRINGS	100%	-
E80/4874	Granted	PALM SPRINGS	100%	-
E80/4976	Granted	PALM SPRINGS	100%	-
E80/5059	Granted	PALM SPRINGS	100%	-
E80/5584	Granted	PALM SPRINGS	100%	-
BRAZIL				
Claim No.	**Status**	**City**	**Ownership %**	**Change in Quarter**
Caldeira Project				

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Claim No.	Status	Owner	Ownership[3]	Change in the Quarter
814.251/1971	Mining Concession	Mineração Perdizes Ltda	100%	-
814.860/1971	Mining Concession	Mineração Zelândia Ltda	100%	-
815.006/1971	Mining Concession	Mineração Perdizes Ltda	100%	-
815.274/1971	Mining Request	Companhia Geral de Minas	100%	-
815.645/1971	Mining Concession	Companhia Geral de Minas	100%	-
815.681/1971	Mining Concession	Mineração Zelândia Ltda	100%	-
815.682/1971	Mining Concession	Companhia Geral de Minas	100%	-
816.211/1971	Mining Concession	Mineração Perdizes Ltda	100%	-
817.223/1971	Mining Concession	Mineração Daniel Togni Loureiro Ltda	100%	-
820.352/1972	Mining Concession	Mineração Zelândia Ltda	100%	-
820.353/1972	Mining Concession	Mineração Zelândia Ltda	100%	-
820.354/1972	Mining Concession	Mineração Zelândia Ltda	100%	-
813.025/1973	Mining Request	Mineração Perdizes Ltda	100%	-
808.556/1974	Mining Concession	Mineração Perdizes Ltda	100%	-
811.232/1974	Mining Concession	Mineração Perdizes Ltda	100%	-
809.359/1975	Mining Concession	Companhia Geral de Minas	100%	-
803.459/1975	Mining Concession	Mineração Perdizes Ltda	100%	-
804.222/1975	Mining Request	Mineração Perdizes Ltda	100%	-
807.899/1975	Mining Request	Companhia Geral de Minas	100%	-
808.027/1975	Mining Concession	Companhia Geral de Minas	100%	-
809.358/1975	Mining Concession	Companhia Geral de Minas	100%	-
830.391/1979	Mining Request	Mineração Perdizes Ltda	100%	-
830.551/1979	Mining Request	Togni S A Materiais Refratários	100%	-
830.000/1980	Mining Request	Mineração Perdizes Ltda	100%	-
830.633/1980	Mining Request	Mineração Zelândia Ltda	100%	-
831.880/1991	Mining Request	Mineração Zelândia Ltda	100%	-
835.022/1993	Mining Concession	Mineração Perdizes Ltda	100%	-
835.025/1993	Mining Concession	Mineração Perdizes Ltda	100%	-
831.092/1983	Mining Concession	Mineração Perdizes Ltda	100%	-

[3] Meteoric owns 100% of the exclusive rights to explore for and develop all rare earth elements located on the 51 mining leases that comprise the Caldeira Project.

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830.513/1979	Mining Request	Mineração Monte Carmelo Ltda	100%	-
830.443/2018	Exploration Licence	Fertimax Fertilizantes Orgânicos Ltda.	100%	-
830.444/2018	Exploration Licence	Fertimax Fertilizantes Orgânicos Ltda.	100%	-
833.655/1996	Mining Application	Minas Rio Mineradora Ltda.	100%	-
833.656/1996	Mining Application	Minas Rio Mineradora Ltda.	100%	-
833.657/1996	Mining Application	Minas Rio Mineradora Ltda.	100%	-
834.743/1995	Mining Application	Minas Rio Mineradora Ltda.	100%	-
833.486/1996	Mining Application	Minas Rio Mineradora Ltda.	100%	-
002.349/1967	Mining Licence	Varginha Mineração e Loteamentos Ltda.	100%	-
833.176/2008	Exploration Application	Varginha Mineração e Loteamentos Ltda.	100%	-
830.955/2006	Exploration Application	Varginha Mineração e Loteamentos Ltda.	100%	-
830.461/2018	Exploration Application	Fertimax Fertilizantes Orgânicos Ltda.	100%	-
832.193/2012	Exploration Licence	Varginha Mineração e Loteamentos Ltda.	100%	-
831.686/2012	Exploration Licence	Varginha Mineração e Loteamentos Ltda.	100%	-
831.269/1992	Mining Licence	Varginha Mineração e Loteamentos Ltda.	100%	-
832.572/2003	Mining Application	Varginha Mineração e Loteamentos Ltda.	100%	-
833.551/1993	Mining Application	Varginha Mineração e Loteamentos Ltda.	100%	-
833.553/1993	Mining Application	Varginha Mineração e Loteamentos Ltda.	100%	-
830.697/2003	Mining Application	Varginha Mineração e Loteamentos Ltda.	100%	-
832.252/2001	Mining Application	Varginha Mineração e Loteamentos Ltda.	100%	-

830.416/2001	Mining Application	Varginha Mineração e Loteamentos Ltda.	100%	-
832.146/2002	Mining Application	Varginha Mineração e Loteamentos Ltda.	100%	-

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Appendix 5B

Mining exploration entity or oil and gas exploration entity quarterly cash flow report

Name of entity

METEORIC RESOURCES NL

ABN	Quarter ended ("current quarter")
64 107 985 651	31 MARCH 2024

Consolidated statement of cash flows		Current quarter $A'000	Year to date (9 months) $A'000
1.	**Cash flows from operating activities**		
1.1	Receipts from customers	-	-
1.2	Payments for		
	(a) exploration & evaluation	(4,058)	(17,956)
	(b) development	-	-
	(c) production	-	-
	(d) staff costs	(580)	(1,352)
	(e) administration and corporate costs	(693)	(1,898)
1.3	Dividends received (see note 3)	-	-
1.4	Interest received	150	254
1.5	Interest and other costs of finance paid	-	-
1.6	Income taxes paid	-	-
1.7	Government grants and tax incentives	-	-
1.8	Other (provide details if material)	-	-
1.9	**Net cash from / (used in) operating activities**	**(5,181)**	**(20,952)**

2.	**Cash flows from investing activities**		
2.1	Payments to acquire or for:		
	(a) entities	-	-
	(b) tenements	-	-
	(c) property, plant and equipment	(738)	(1,265)
	(d) exploration & evaluation	-	-
	(e) investments	-	-
	(f) other non-current assets	-	-

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Consolidated statement of cash flows		Current quarter $A'000	Year to date (9 months) $A'000
2.2	Proceeds from the disposal of:		
	(a) entities	-	27,690
	(b) tenements	-	-
	(c) property, plant and equipment	-	-
	(d) investments	-	-
	(e) other non-current assets	-	-
2.3	Cash flows from loans to other entities	-	-
2.4	Dividends received (see note 3)	-	-
2.5	Other (provide details if material)	-	-
2.6	**Net cash from / (used in) investing activities**	**(738)**	**26,425**

3.	**Cash flows from financing activities**		
3.1	Proceeds from issues of equity securities (excluding convertible debt securities)	-	-
3.2	Proceeds from issue of convertible debt securities	-	-
3.3	Proceeds from exercise of options	-	4,946
3.4	Transaction costs related to issues of equity securities or convertible debt securities	-	-
3.5	Proceeds from borrowings	-	290
3.6	Repayment of borrowings	-	-
3.7	Transaction costs related to loans and borrowings	-	-
3.8	Dividends paid	-	-
3.9	Other (provide details if material)	-	-
3.10	**Net cash from / (used in) financing activities**	**-**	**5,236**

4.	**Net increase / (decrease) in cash and cash equivalents for the period**		
4.1	Cash and cash equivalents at beginning of period	32,301	17,290
4.2	Net cash from / (used in) operating activities (item 1.9 above)	(5,181)	(20,952)
4.3	Net cash from / (used in) investing activities (item 2.6 above)	(738)	26,425
4.4	Net cash from / (used in) financing activities (item 3.10 above)	-	5,236

Consolidated statement of cash flows		Current quarter $A'000	Year to date (9 months) $A'000
4.5	Effect of movement in exchange rates on cash held	997	(620)
4.6	**Cash and cash equivalents at end of period**	**27,379**	**27,379**

5.	**Reconciliation of cash and cash equivalents** at the end of the quarter (as shown in the consolidated statement of cash flows) to the related items in the accounts	**Current quarter $A'000**	**Previous quarter $A'000**
5.1	Bank balances	27,329	32,251
5.2	Call deposits	50	50
5.3	Bank overdrafts	-	-
5.4	Other (provide details)	-	-
5.5	**Cash and cash equivalents at end of quarter (should equal item 4.6 above)**	**27,379**	**32,301**

6.	**Payments to related parties of the entity and their associates**	**Current quarter $A'000**
6.1	Aggregate amount of payments to related parties and their associates included in item 1	368
6.2	Aggregate amount of payments to related parties and their associates included in item 2	-

Note: if any amounts are shown in items 6.1 or 6.2, your quarterly activity report must include a description of, and an explanation for, such payments.

Payments of Directors fees and salaries

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7.	**Financing facilities** *Note: the term "facility' includes all forms of financing arrangements available to the entity.* *Add notes as necessary for an understanding of the sources of finance available to the entity.*	**Total facility amount at quarter end $A'000**	**Amount drawn at quarter end $A'000**
7.1	Loan facilities	-	-
7.2	Credit standby arrangements	-	-
7.3	Other (please specify)	-	-
7.4	**Total financing facilities**	-	-
7.5	**Unused financing facilities available at quarter end**		-
7.6	Include in the box below a description of each facility above, including the lender, interest rate, maturity date and whether it is secured or unsecured. If any additional financing facilities have been entered into or are proposed to be entered into after quarter end, include a note providing details of those facilities as well.		

8.	**Estimated cash available for future operating activities**	**$A'000**
8.1	Net cash from / (used in) operating activities (item 1.9)	(5,181)
8.2	(Payments for exploration & evaluation classified as investing activities) (item 2.1(d))	-
8.3	Total relevant outgoings (item 8.1 + item 8.2)	(5,181)
8.4	Cash and cash equivalents at quarter end (item 4.6)	27,379
8.5	Unused finance facilities available at quarter end (item 7.5)	-
8.6	Total available funding (item 8.4 + item 8.5)	27,379
8.7	**Estimated quarters of funding available (item 8.6 divided by item 8.3)**	**5.3**

Note: if the entity has reported positive relevant outgoings (ie a net cash inflow) in item 8.3, answer item 8.7 as "N/A". Otherwise, a figure for the estimated quarters of funding available must be included in item 8.7.

8.8 If item 8.7 is less than 2 quarters, please provide answers to the following questions:

8.8.1 Does the entity expect that it will continue to have the current level of net operating cash flows for the time being and, if not, why not?

Answer:

8.8.2 Has the entity taken any steps, or does it propose to take any steps, to raise further cash to fund its operations and, if so, what are those steps and how likely does it believe that they will be successful?

Answer:

8.8.3	Does the entity expect to be able to continue its operations and to meet its business objectives and, if so, on what basis?
Answer:	
Note: where item 8.7 is less than 2 quarters, all of questions 8.8.1, 8.8.2 and 8.8.3 above must be answered.	

Compliance statement

1 This statement has been prepared in accordance with accounting standards and policies which comply with Listing Rule 19.11A.

2 This statement gives a true and fair view of the matters disclosed.

Date: 30 April 2024

Authorised by: the Board
(Name of body or officer authorising release – see note 4)

Notes

1. This quarterly cash flow report and the accompanying activity report provide a basis for informing the market about the entity's activities for the past quarter, how they have been financed and the effect this has had on its cash position. An entity that wishes to disclose additional information over and above the minimum required under the Listing Rules is encouraged to do so.

2. If this quarterly cash flow report has been prepared in accordance with Australian Accounting Standards, the definitions in, and provisions of, *AASB 6: Exploration for and Evaluation of Mineral Resources* and *AASB 107: Statement of Cash Flows* apply to this report. If this quarterly cash flow report has been prepared in accordance with other accounting standards agreed by ASX pursuant to Listing Rule 19.11A, the corresponding equivalent standards apply to this report.

3. Dividends received may be classified either as cash flows from operating activities or cash flows from investing activities, depending on the accounting policy of the entity.

4. If this report has been authorised for release to the market by your board of directors, you can insert here: "By the board". If it has been authorised for release to the market by a committee of your board of directors, you can insert here: "By the [*name of board committee – eg Audit and Risk Committee*]". If it has been authorised for release to the market by a disclosure committee, you can insert here: "By the Disclosure Committee".

5. If this report has been authorised for release to the market by your board of directors and you wish to hold yourself out as complying with recommendation 4.2 of the ASX Corporate Governance Council's *Corporate Governance Principles and Recommendations*, the board should have received a declaration from its CEO and CFO that, in their opinion, the financial records of the entity have been properly maintained, that this report complies with the appropriate accounting standards and gives a true and fair view of the cash flows of the entity, and that their opinion has been formed on the basis of a sound system of risk management and internal control which is operating effectively.

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