

# Quarterly Activities Report

For the period ending 31 December 2023

## HIGHLIGHTS

- Following exceptional first diamond drilling assay results, previous reported exploration results and excellent ionic adsorption testwork recoveries, Alvo exercised the purchase option over 100% of the Bluebush Ionic Adsorption Clay REE Project.
- **Metallurgical testwork showed excellent extractions of REE confirming Bluebush as an ionic (adsorption) clay rare earth element (REE) project.**
- **High-value magnet rare earths (MRE) extraction rates using weakly acidic (pH 4) AMSUL at ambient temperatures achieved the following extractions (after 30 minutes):**
  - Neodymium (Nd): up to 89% averaging 60%.
  - Praseodymium (Pr): up to 86%, averaging 57%.
  - Dysprosium (Dy): up to 53%, averaging 37%.
  - Terbium (Tb): up to 69%, averaging 48%.
  - **Total MRE extractions (Nd,Pr,Dy +Tb): up to 83%, averaging 56%.**
- Diamond drilling across Boa Vista confirmed depth profile of the saprolite clay intersecting an average depth of **22m of saprolite clay.**
- First diamond drill hole BLD004 returned a broad intercept of **34m at 1,090ppm TREO (24% MREO) from surface (0.5m)**, containing shallow, high-grade intervals including:
  - **18.5m @ 1,396ppm TREO (25% MREO) from 0.5m**
    - Inc. **10.5m @ 1,868ppm TREO (26% MREO) from 0.5m**
      - Inc. **3.5m @ 2,961ppm TREO (28% MREO) from 4.1m**
- **Diamond drilling at Alvo's C4 discovery on the Palma VMS project continued**
- **Multi-disciplinary Exploration continued across the Palma Project- advancing numerous new targets towards drill testing**
- **New REE Project "Ipora" acquired during the quarter in an emerging high-grade ionic clay province**

Alvo Minerals Limited (ASX: ALV) ("Alvo" or "the Company") is pleased to provide its Quarterly Activities Report for the period ending 31 December 2023. Alvo advanced exploration at the Bluebush REE Project ("Bluebush Project" or "Bluebush"), located in Central Brazil and adjacent to Alvo's existing Palmeiropolis exploration base.

### REGISTERED ADDRESS

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### MANAGEMENT TEAM

Graeme Slattery – Non-Executive Chairman  
Rob Smakman – Managing Director  
Beau Nicholls – Non-Executive Director

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### PROJECTS

Palma VMS Cu/Zn Project  
Bluebush Ionic Clay REE Project

Shares on Issue 93,130,314  
ASX Code **ALV**

Bluebush results confirmed this as an ionic (adsorption) clay rare earth element project, leading to Alvo exercising the purchase option of 100% of the Bluebush Project. The first diamond hole at the Boa Vista prospect returned an impressive broad intercept of **34m at 1,090ppm TREO (24% MREO)** from surface (0.5m) and including **18.5m @ 1,396ppm TREO (25% MREO)** from 0.5m .

Alvo also continued work at the Pama VMS Project, drilling multiple diamond drill holes into the C4 Prospect - a brownfields discovery made by Alvo during the September 2023 quarter. Regional exploration across the Palma Project continued, with auger drilling, soil sampling, geological mapping and multiple geophysical surveys also completed with the aim of delineating new drill targets for 2024.

During the quarter, Alvo’s in-house team identified and applied for a potential new REE Project called Ipora. This new exploration Project is located in a new and highly promising REE province which has demonstrated significant potential for Ionic clay hosted mineralisation. A reconnaissance visit was conducted (and the first of the applied for tenements granted), subsequent to the quarter end.

All exploration work conducted by the Alvo group is displayed in Figure 1.

**Rob Smakman, Alvo’s Managing Director commented on the Quarter:**

*“It has been another busy quarter for Alvo, with the exploration across our portfolio and the critical exercise of the purchase option to acquire 100% of the Bluebush Project. We are thrilled to add this project to our Brazilian portfolio, with Bluebush passing all of our key acquisition criteria.*

*“We continue to explore at Palma VMS and Bluebush REE, with our experienced and well-equipped team systematically and professionally exploring our growing number of prospects across the portfolio. We are building an enviable pipeline of prospects across the region and will continue into 2024 with renewed vigour.*

*“Exploration works continue across Bluebush and Palma and in addition, shortly after the end of the quarter Alvo began early stage attention on the newly acquired Ipora REE Project. We look forward to releasing further results to the market as we uncover the significant potential of our projects.”*

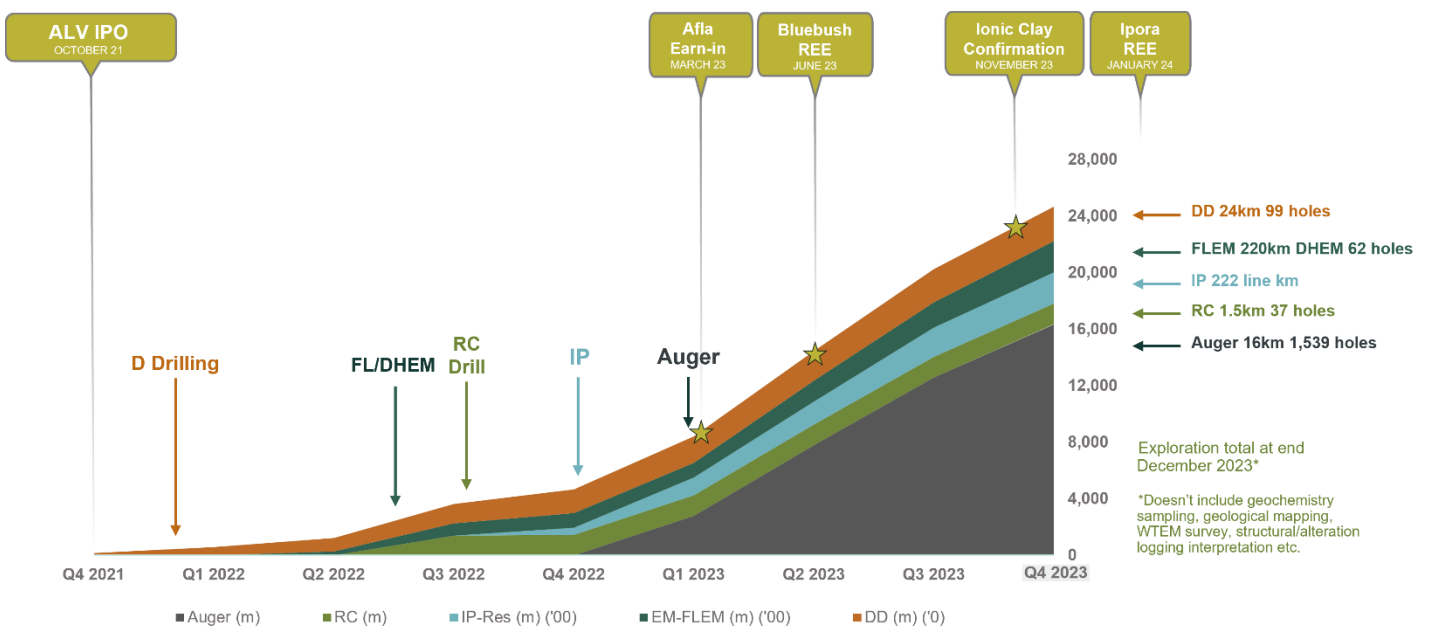


Figure 1: Alvo Exploration Activities

## Exploration Activities

### Bluebush IAC REE Project

The Bluebush IAC REE Project is adjacent to Alvo's Palma VMS Project (see Figure 2) and is along strike from, and on the same biotite-rich granitic intrusion called Serra Dourada, host of the privately held Serra Verde Ionic Clay REE Project, the only ionic clay REE project in the world currently in production outside of China. Serra Verde announced commercial production early in 2024 and is anticipating production of ~5,000tpa of mixed Rare Earth Concentrates once ramp-up is complete.

Serra Verde has an estimated Mineral Resource<sup>i</sup> of 911Mt @ 1,200ppm TREO and an Ore Reserve of 350Mt @ 1,500ppm TREO. With an elevated percentage of the higher value heavy and magnet REEs, Serra Verde is projecting a mine life of over 20 years. Early results from Bluebush appear to be similar to the published results available to Serra Verde.

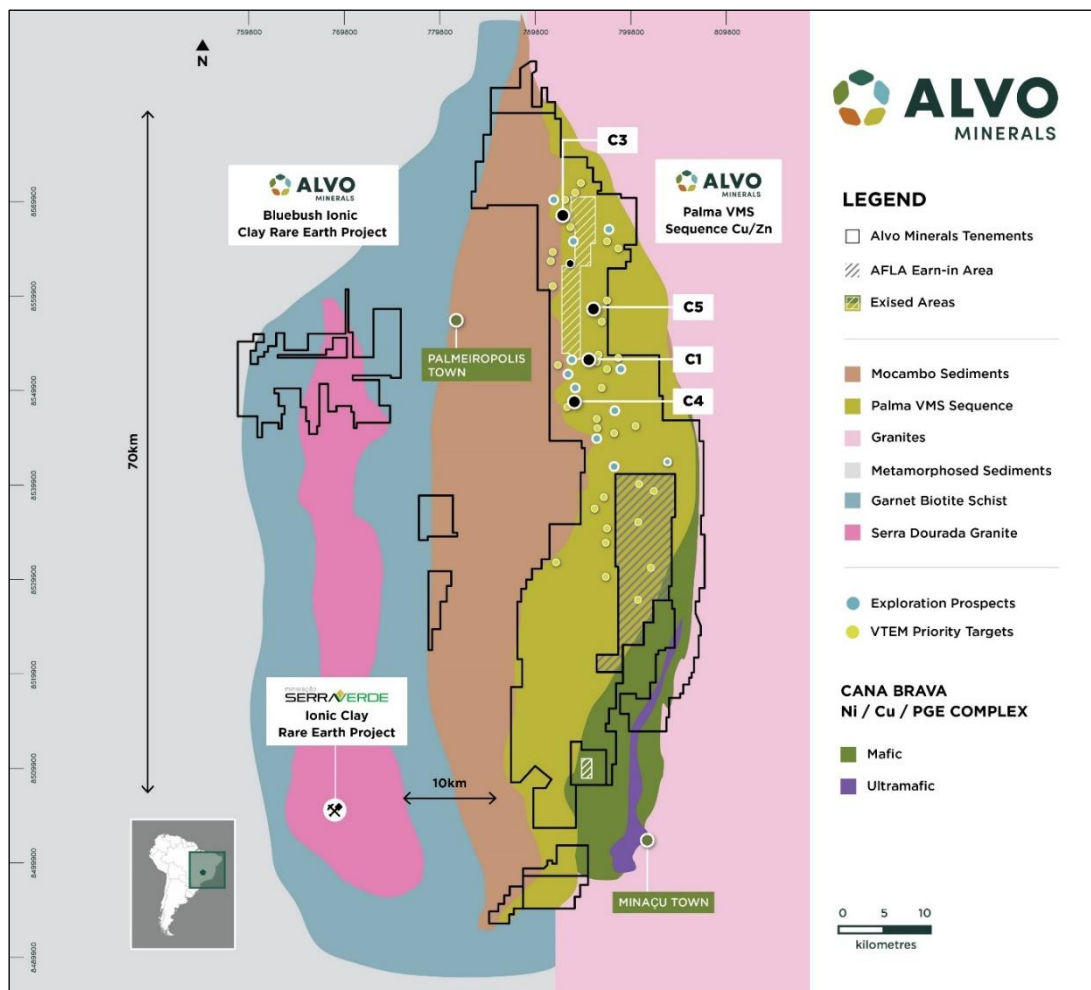


Figure 2: Regional geology and tenement holdings for Alvo's Bluebush REE Project and Palma Project area.

## Confirmation as Ionic Adsorption Clay REE Project

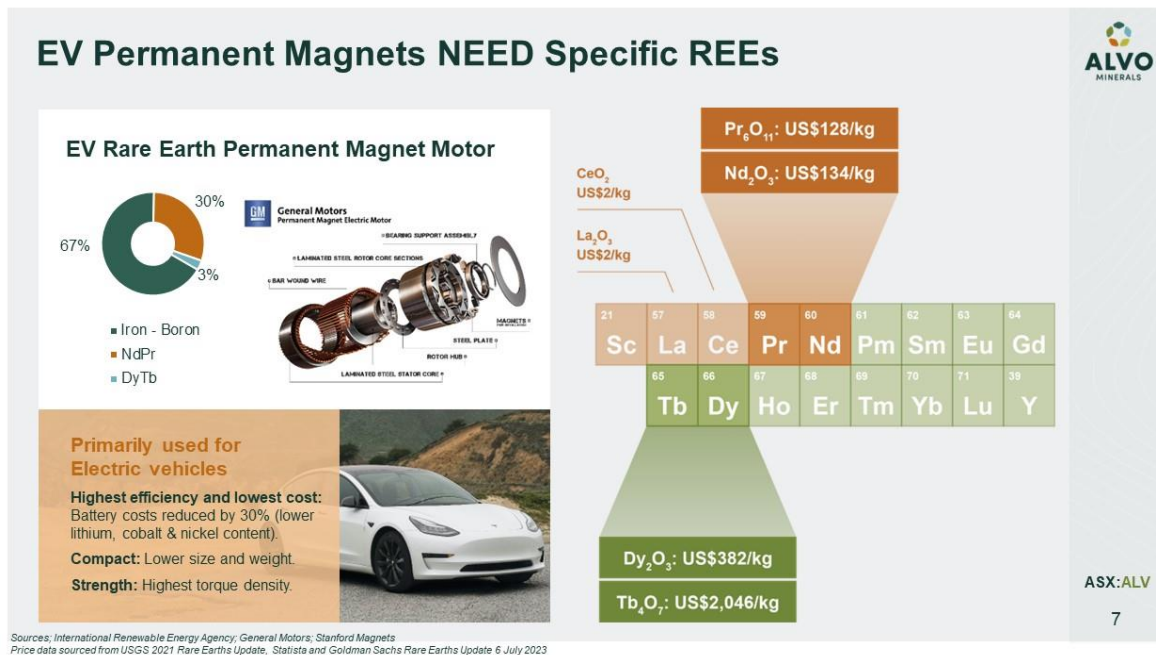
During the quarter, Alvo was pleased to announce results from the initial metallurgical testwork undertaken on auger drill samples from the Boa Vista and Sao Bento prospects at Bluebush. The results confirmed the status of Bluebush as an ionic clay (adsorption) REE project, important due to the simpler potential mining and processing costs with associated lower capital and operating costs than other hard rock or simple clay hosted REE prospects<sup>ii</sup>.

The ionic adsorption clay-hosted rare earth element leach test used a diluted solution of 0.5 molar ammonium sulphate at room temperature and a pH 4 for 30 minutes. Recoveries above 30% are considered by Alvo to confirm the ionic nature of the mineralisation.

Results are presented in Table 1 and include overall recoveries of the Total REO as well as the more valuable and important MREOs (see Figure 3). The results are considered to be excellent, with the average recovery of the lighter magnet rare earths (Pr + Nd) being 58%. The average recovery of the more valuable heavier magnets REEs, Tb + Dy was 42%, and the Total MREO recoveries were as high as 83% for an individual sample, averaging 56%.

**Table 1: Bluebush Ionic Clay MREO Project metallurgical test results.**

Prospect	Drill Hole	Interval			Assayed Head (ppm)			Elemental Recovery				MREO Recovery	TREO-Ce Recovery
		From	To	m	TREO	TREO-Ce	MREO	Nd %	Pr %	Dy %	Tb %	%	%
Boa Vista	BLG0009	4	5	1	1,262	765	359	55%	52%	39%	50%	53%	56%
		5	6	1	1,393	829	396	57%	54%	42%	54%	55%	56%
		6	7	1	1,504	856	357	43%	40%	30%	38%	41%	43%
		7	8	1	1,237	784	322	51%	48%	35%	43%	49%	
Boa Vista	BLG0014	4	5	1	813	666	203	<b>89%</b>	<b>86%</b>	<b>53%</b>	<b>69%</b>	<b>83%</b>	<b>72%</b>
		5	6	1	1,075	636	243	49%	47%	41%	51%	47%	47%
		6	7	1	773	901	184	<b>82%</b>	<b>78%</b>	<b>41%</b>	<b>57%</b>	<b>73%</b>	<b>59%</b>
Boa Vista	BLG0034	4	5	1	1,255	1,025	269	<b>83%</b>	<b>80%</b>	<b>32%</b>	<b>49%</b>	<b>72%</b>	<b>51%</b>
		5	6	1	1,355	1,201	286	50%	48%	24%	33%	44%	33%
Sao Bento	BLG0068	0	2	2	514	269	93	70%	68%	40%	50%	65%	60%
		2	4	2	567	350	117	42%	40%	32%	39%	41%	41%
Sao Bento	BLG0134	0	2	2	632	422	134	63%	60%	38%	54%	59%	54%
		2	4	2	797	445	177	41%	39%	28%	36%	39%	38%
<b>Average</b>					<b>1,014</b>	<b>704</b>		<b>60%</b>	<b>57%</b>	<b>37%</b>	<b>48%</b>	<b>56%</b>	<b>51%</b>



**Figure 3:** Magnet Rare Earth Elements (MREOs) are primarily used for permanent magnet motors in electric vehicles. High-value MREOs are highlighted with their relative values, with the oxides of Dy and Tb the highest of all the MREOs.

## Drilling Programs

During the quarter, a diamond drill rig was mobilised to test the saprolite clay depth profile across the Boa Vista and Sao Bento prospects at Bluebush<sup>iii</sup>. The initial diamond drill program of up to 1,000m focused on testing the saprolite clay depth profile across the Boa Vista prospect.

Initial updates from the drilling noted that all holes intersected saprolite clay zones of up to 28m at Boa Vista, with an average of 18m<sup>iv</sup> and significantly extended the depth of clay horizons. BLD004 intersected 28m of highly weathered saprolite clay, which is located 4m east of the auger drill hole BRL008 which delivered exceptional MREO values of **6m @ 2,537ppm TREO, inc. 3m @ 3,415ppm TREO (24% MREO)**.

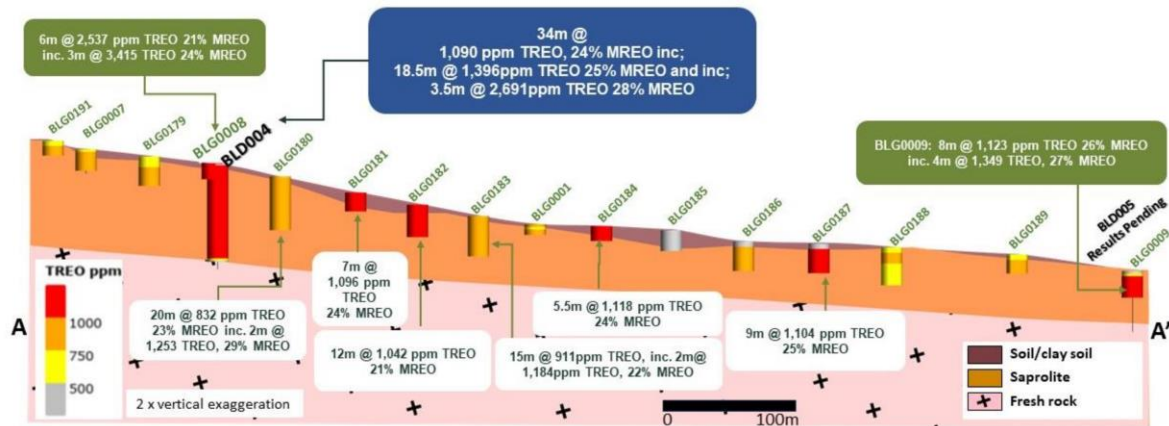
During the quarter, assay results for priority hole BLD004<sup>v</sup> returned a broad intercept of **34m at 1,090ppm TREO (24% MREO) from surface (0.5m)**, containing shallow, high-grade intervals including (Table 3, Figure 4):

- 18.5m @ 1,396ppm TREO (25% MREO) from 0.5m;
  - Inc. 10.5m @ 1,868ppm TREO (26% MREO) from 0.5m;
  - Inc. 3.5m @ 2,963ppm TREO (28% MREO) from 4.1m
- 6m @ 1,019ppm TREO (21% MREO) from 29m

The grades compare favourably to neighbouring Serra Verde IAC deposit which hosts an MRE<sup>i</sup> of 911Mt @ 1,200ppm TREO.

**Table 2:** Significant intercepts from diamond BLD004.

BLD004	Length (m)	From	Nd <sub>2</sub> O <sub>3</sub> ppm	Pr <sub>6</sub> O <sub>11</sub> ppm	Dy <sub>2</sub> O <sub>3</sub> ppm	Tb <sub>4</sub> O <sub>7</sub> ppm	TREO ppm	MREO ppm	HREO ppm	% MREO / TREO
	34.3	0.5	177	55	25	4	1090	260	219	24%
Inc.	18.5	0.5	240	74	34	6	1396	354	288	25%
Inc.	10.5	0.5	329	102	48	8	1868	488	414	26%
Inc.	3.5	4.05	517	162	73	13	2691	766	635	28%



**Figure 4:** Cross section A-A' through diamond holes BLD004 and BLD005 (results pending). Diamond results are in blue, new auger results in white and previously reported results in green.

In parallel to the maiden diamond drill program, a cost-efficient truck mounted auger continued to rapidly advance the Bluebush Project, following up on high-grade MREO zones to gain a greater understanding of the true depths of the saprolite clay profiles. New auger results returned from Boa Vista included:

- 11m @ 1,045ppm TREO from 2m to EOH (25% MREO) in BLG0029
  - Inc. 6m @ 1,179ppm TREO (26% MREO) from 3m
- 12m @ 1,042ppm TREO from 0m to EOH (21% MREO) in BLG0182
- 8m @ 1,155ppm TREO from 0m (25% MREO) in BLG0198
  - Inc. 4m @ 1,428ppm TREO (26% MREO) from 2m
- 1.5m @ 1,345ppm TREO from 4m to EOH (29% MREO) in BLG0208
- 2.4m @ 1,246ppm TREO from 2m to EOH (29% MREO) in BLG0209

### Bluebush Option Signed

As a result of the exceptional first diamond drilling assay results, previous reported exploration results and excellent ionic adsorption testwork recoveries, Alvo has exercised the purchase option over 100% of the Bluebush Ionic Adsorption Clay REE Project.



Bluebush IAC due diligence successfully delivered against Alvo's key acquisition criteria, being:

**Grade:** Identified high-grade TREO and MREO zones at Boa Vista.

**Scale:** Mineralisation defined over an initial 3.5km strike and 3.0km width (and open), with Alvo diamond drilling intercepting saprolite clay depths of up to 28m.

**Ionic Clay Extraction:** Magnet rare earth extractions up to 83% (averaging 56%) using weakly acidic (pH 4), ammonium sulphate wash at ambient temperatures.

### Further Exploration Work at Bluebush

Additional exploration work was initiated and continues into 2024. This includes;

- Alvo is utilising a Loupe Portable Electromagnetic survey system to map the thickness and extent of saprolite/clay horizons to prioritise ongoing exploration.
- Hand-held auger drilling, with the portable nature of the equipment allowing access to remote areas of the project.
- A soil sampling and mapping program also commenced at Bluebush during the quarter, covering areas towards the middle of the Serra Dourada granite.
- Truck Mounted auger will pattern drill the Boa Vista Prospect during the current quarter with the aim of defining a Mineral Resource Estimate.

### Palma VMS Cu-Zn Project

Exploration work continued at the Palma VMS Project during the quarter with diamond drilling completed at the C4 prospect and regional multi-disciplinarian exploration across a multitude of maturing prospects.

The C4 Prospect is a Brownfields discovery by Alvo in the September quarter 2023, located ~5km to the SW of C1 (see Figure 2). During the quarter, a total of 4 diamond holes were completed for 860m with results due to be released in the current quarter. Once all results are released, Alvo intends to estimate a JORC 2012 compliant, Maiden Mineral Resource Estimate over the C4 Prospect.

Complementary to the drilling at C4, exploration included a number of downhole electromagnetic surveys (DHEM), ground fixed-loop electromagnetic surveys (FLEM) and Induced Polarisation (IP) surveys. These surveys, along with additional soil sampling, geological mapping and auger drilling allowed Alvo geologists to better target the drilling at C4.

Exploration across the wider Palma Project continued at pace, with an overall goal - the delineation of Copper and Zinc dominated VMS prospects where multi-disciplinary results (geological, geochemical and geophysical) compel drilling for discovery. Figure 5 below details the various surveys completed by the exploration team across the wider Palma Project in the December quarter.

Several Prospects (Urubu, Anta, TG-01 and C5) are in the final stages of exploration before the next step of diamond drilling to test for mineralisation. An update on planned exploration across the Palma VMS Project will be prepared in the current quarter.

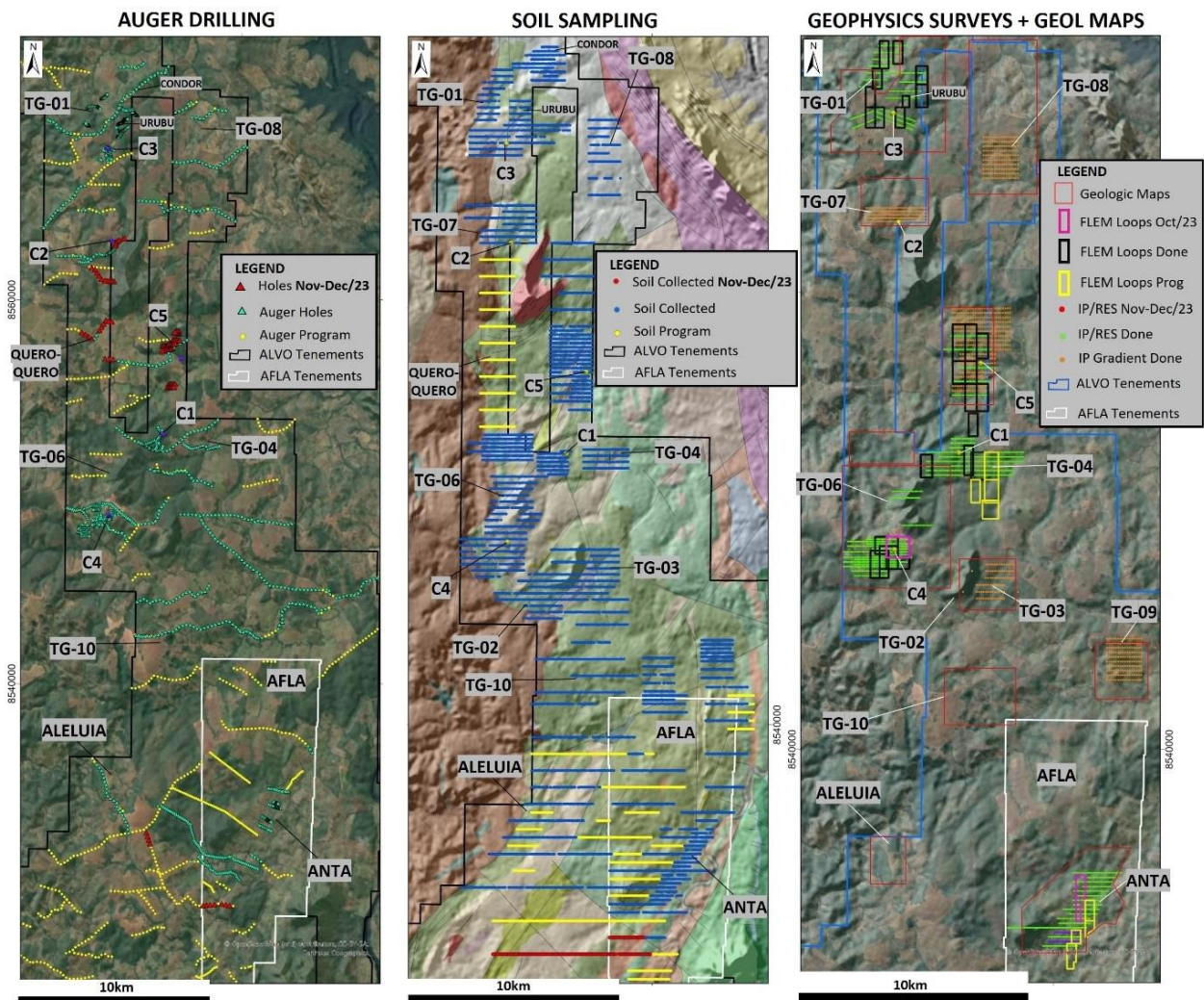


Figure 5: General Exploration at Palma with Auger, geochemistry, geology and geophysics

## Ipورا Rare Earth Element Project

Subsequent to the quarter, Alvo announced<sup>vi</sup> that it had applied for 211km<sup>2</sup> of tenements in Goias State, along strike from an emerging high-grade discovery. The staking of the new “Ipóra” REE Project, is complementary to Alvo’s existing Bluebush IAC REE Project located ~600km north in the neighboring state of Goias (see Figure 6).

The Ipóra Project is located on similar geology and adjacent to the PCH Project owned by Canadian listed Appia Rare Earths and Uranium Corporation (“Appia”) (CSE:API), where recent extraordinarily high REE results were reported from surface over broad widths, including an area of elevated scandium (Sc). On 16 January 2024 Appia announced an intersection of 24m @ 38,655ppm (3.9%) TREO, 6,869ppm MREO to end of hole (EOH), incl. 2m @ 92,758ppm (9.3%) TREO, 13,798ppm (1.4%) MREO from 10m at its ionic adsorption clay PCH Project

Alvo’s Ipóra project is close to the city of Iporá, approximately 600km from Alvo’s existing exploration base in Brazil and ~250km from the state capital of Goiania. The first of these tenements was granted by the Brazilian Mines Department on 26 January 2024.



Ipورا is an exciting new addition to the Alvo exploration project suite, confirming the company's belief that Brazil is emerging as one of the most important locations for global ionic clay hosted REE projects.

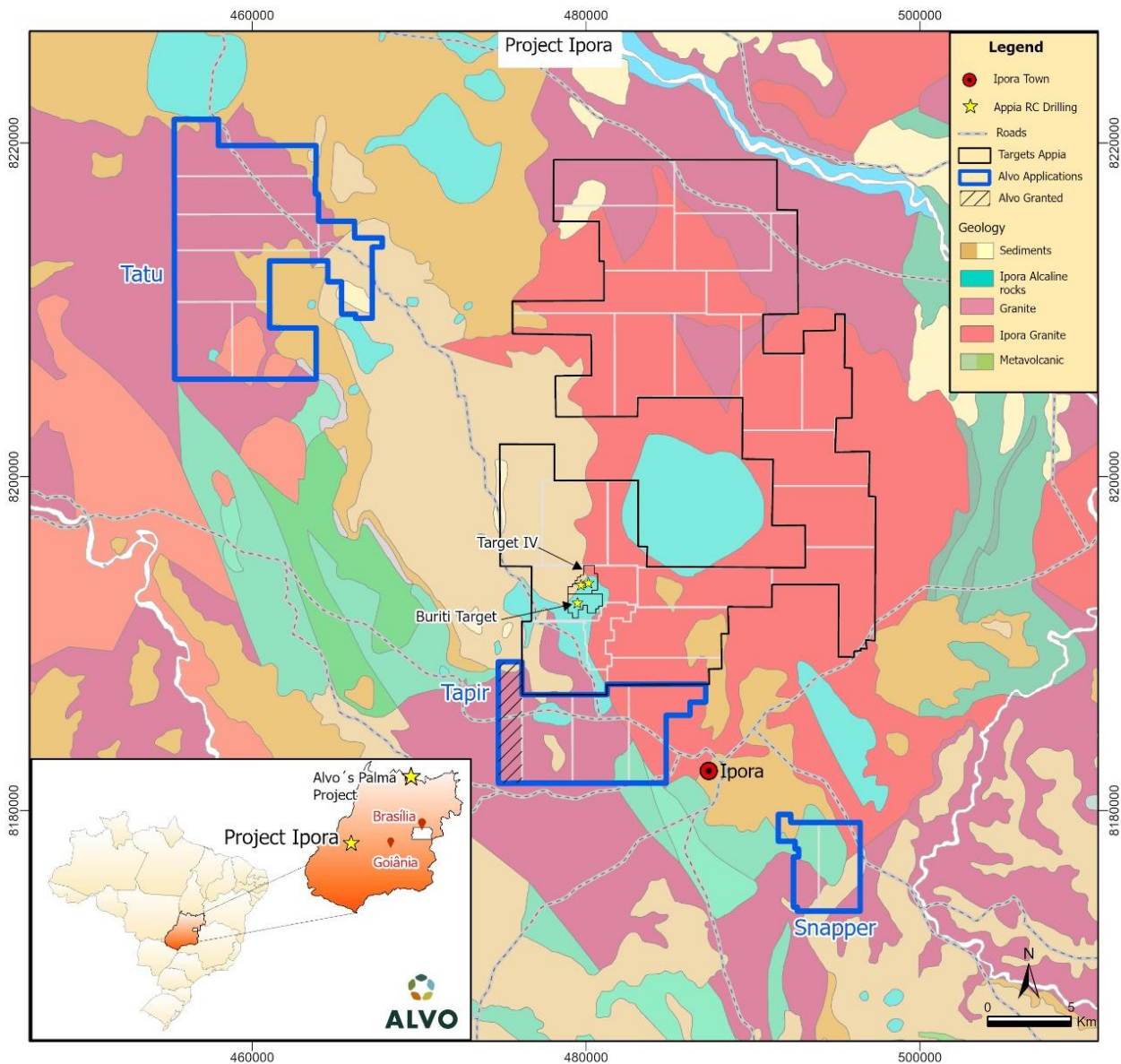


Figure 6: Geological map of Ipóra REE Project.

Ipóra is located within the Tocantins structural province in the Brasília fold belt, the same district as the REE deposits of Bluebush (Alvo), Pela Ema (Serra Verde), Carina Module (Aclara Resources, TSX:ARA) and the previously mentioned PCH Project (Appia CSE:API).

Alvo considers the results by Appia to be amongst the highest-grade results published for ionic-clay hosted REE drilling anywhere in the world and the team is excited about the possibility that the Ipóra area could be a new emerging province for ionic clay adsorption hosted REEs.

Appia also reports the PCH Project is prospective for niobium, cobalt and scandium, minerals considered to be critical by many international governments.

Desktop work and general reconnaissance is underway at Ipóra, with fieldwork to commence once the bulk of the areas are granted - expected in the current quarter.

## CORPORATE

### Appointment of CFO

During the quarter, Alvo announced the appointment of Gary Elwell as Chief Financial Officer, succeeding David Warlond who stepped down to pursue other career opportunities<sup>vii</sup>.

Mr Elwell is a seasoned Chartered Management Accountant with over 20 years of experience in CFO/Financial Controller roles with ASX listed companies.

### Securities Information

As at 31 December 2023, the Company had 93,130,314 ordinary fully paid shares on issue and 13.6M unlisted options granted at various vesting and expiration dates.

### Financial

As at 31 December 2023, the Company had a net cash position approximately \$1.7 million. Refer to the Appendix 5B Quarterly Cashflow Report for further information.

Use of Funds	As Per Prospectus (over 2 years)	Use of Funds to 31 December 2023
	\$'000	\$'000
Costs of the Offer	860	735
Exploration & Operations		
Geochemical surveys and Drilling	3,730	8,184
Geophysical surveys	1,250	706
Metallurgy, Engineering and studies	1,050	351
Administration (Australia and Brazil)	1,940	2,469
<b>Total</b>	<b>8,830</b>	<b>12,445</b>

### ASX Listing Rule 5.3.2

There were no mining production and development activities during the quarter.

### ASX Listing Rule 5.3.5 - Payments to Related Parties

The following sets out the information as required by ASX Listing Rule 5.3.5 regarding payments to related parties of the entity and their associates:

During the Quarter, the Company made payments to related parties of \$105,450, which related to payments to Directors.

This announcement has been approved for release by the Board of Alvo Minerals Limited.

## ENQUIRIES

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### ASX Announcements

This Quarterly Activities Report contains information reported in accordance with JORC 2012 in the following announcements released during the June quarter:

“METALLURGICAL TESTS CONFIRM BLUEBUSH AS IONIC CLAY” dated 2 November 2023 issued by Alvo Minerals Limited

“THICK SAPROLITE CLAYS INTERCEPTED AT BLUEBUSH PROJECT” dated 8 November 2023 issued by Alvo Minerals Limited

“BLUEBUSH OPTION SIGNED DIAMOND HOLE RESULTS THICK HIGH GRADE” dated 6 December 2023 issued by Alvo Minerals Limited

### Forward Looking Statements

Statements regarding plans with respect to Alvo’s Palma Project and its exploration program are forward-looking statements. Forward-looking statements are only predictions and are subject to risks, uncertainties and assumptions which are outside Alvo’s control and actual values, results or events may be materially different to those expressed or implied herein. Alvo does not undertake any obligation, except where expressly required to do so by law, to update or revise any information or any forward-looking statement to reflect any changes in events, conditions, or circumstances on which any such forward-looking statement is based.

### Competent Person’s Statement

The information contained in this announcement that relates to recent exploration results is based upon information compiled by Mr Rob Smakman of Alvo Minerals Limited, a Competent Person and Fellow of the Australasian Institute of Mining and Metallurgy. Mr Smakman is a full-time employee of Alvo and has sufficient experience relevant to the style of mineralisation and type of deposit under consideration and to the activity which he is undertaking to qualify as a Competent Person as defined in the “Australasian Code for Reporting of Mineral Resources and Ore Reserves” (or JORC 2012). Mr Smakman consents to the inclusion in this announcement of the matters based upon the information in the form and context in which it appears.

## Cautionary Statement

Exploration results reported in this announcement relating to the Bluebush REE Project have been reported by the previous owner. The Exploration Results have not been reported in accordance with accordance with JORC Code 2012. A Competent Person has not done sufficient work to disclose the exploration results in accordance with the JORC Code 2012. It is possible that following further evaluation and/or exploration work that the confidence in the prior exploration results may be reduced when reported under the JORC Code 2012. Nothing has come to the attention of Alvo that causes it to question the accuracy or reliability of the former owner's exploration. The Company however has not independently validated the former owner's exploration results and therefore is not to be regarded as reporting, adopting or endorsing those results.

## ABOUT ALVO

**Alvo Minerals (ASX: ALV)** is an active critical minerals exploration company, with an established exploration base in central Brazil.

Alvo is exploring for Rare Earth Elements at the highly prospective Bluebush Ionic Clay REE Project in Central Brazil. Bluebush is adjacent to and along strike from the privately-owned Serra Verde Ionic Clay REE Project, which is the only Ionic Clay REE project in commercial production outside of China.

Alvo's Ipora REE Project is an exciting greenfields exploration project targeting the Iporá alkaline intrusive complex, considered highly prospective for REEs, potentially of the highly valued ionic clay type. The Ipora REE Project is located in the State of Goiás and is on similar geology and located adjacent to the PCH REE Project (Appia Rare Earths and Uranium Corporation, CSE:API).

The Company was founded to explore for base and precious metals, hunting high-grade copper and zinc at its Palma Project, adjacent to the Company's Bluebush REE Project. The Palma Project has a JORC 2012 Inferred Mineral Resource Estimate of 4.6Mt @ 1.0% Cu, 3.9% Zn, 0.4% Pb & 20g/t Ag.

Alvo's strategic intent is to aggressively explore and deliver growth through discovery, leveraging managements' extensive track record in Brazil. There are three phases to the exploration strategy – Discover, Expand and Upgrade.

Alvo is committed to fostering best in class stakeholder relations and supporting the local communities in which it operates.

### CuEq: Copper Equivalent Calculation

The copper equivalent grades (CuEq) are based on copper, zinc, silver, lead and gold prices of US\$7,782/t Copper, US\$3,189/t Zinc, US\$1,980/t Lead, US\$19.30/oz Silver, and US\$1,696/oz (price deck based on 3-month LME as 7/11/22). Recoveries of 81%, 83%, 70%, 50% and 50% respectively, (recoveries based on Metallurgical testwork released in ASX Announcement 9 November 2022).

The copper equivalent calculation is as follows:  $Cu\ Eq = Cu\ grade\ \% * Cu\ recovery + ((Pb\ grade\ \% * Pb\ recovery\ \% * (Pb\ price\ \$/t / Cu\ price\ \$/t)) + (Zn\ grade\ \% * Zn\ recovery\ \% * (Zn\ price\ \$/t / Cu\ price\ \$/t)) + (Ag\ grade\ g/t / 31.103 * Ag\ recovery\ \% * (Ag\ price\ \$/oz / Cu\ price\ \$/t)) + (Au\ grade\ g/t / 31.103 * Au\ recovery\ \% * (Au\ price\ \$/oz / Cu\ price\ \$/t))$ .

Reported on 100% Basis.

## APPENDIX 1

Tenement information reported as required by ASX listing rule 5.3.3.

Tenement ID	Name on Title	Phase	Area (Ha)	State in Brazil	ALV beneficial interest at 31/06/2026	Notes
864.207/2018	Amazon Consultoria Em Mineração e Serviços Ltda	Exploration Application	9,874	TO	100%	1, 3
864.152/2018	Perth Recursos Mineraiis Ltda	Granted Exploration	1,727	TO	100%	3
864.151/2018	Perth Recursos Mineraiis Ltda	Granted Exploration	1,877	TO	100%	3
864.150/2018	Perth Recursos Mineraiis Ltda	Granted Exploration	1,990	TO	100%	3
864.149/2018	Perth Recursos Mineraiis Ltda	Granted Exploration	1,795	TO	100%	3
864.206/2018	Perth Recursos Mineraiis Ltda	Granted Exploration	1,687	TO	100%	3
864.205/2018	Perth Recursos Mineraiis Ltda	Granted Exploration	66	TO	100%	3
864.204/2018	Perth Recursos Mineraiis Ltda	Granted Exploration	41	TO	100%	3
864.203/2018	Perth Recursos Mineraiis Ltda	Granted Exploration	1,295	GO	100%	3
864.202/2018	Perth Recursos Mineraiis Ltda	Granted Exploration	1,821	GO	100%	3
864.153/2018	Perth Recursos Mineraiis Ltda	Granted Exploration	1,987	TO	100%	3
860.125/2020	Perth Recursos Mineraiis Ltda	Granted Exploration	1,901	GO	100%	3
860.124/2020	Perth Recursos Mineraiis Ltda	Granted Exploration	1,981	GO	100%	3
860.123/2020	Perth Recursos Mineraiis Ltda	Granted Exploration	437	GO	100%	3
811.686/1975	CPRM	Granted Exploration	1,000	TO	100%	2
811.689/1975	CPRM	Granted Exploration	1,000	TO	100%	2
811.702/1975	CPRM	Granted Exploration	1,000	TO	100%	2
800.744/1978	CPRM	Granted Exploration	1,050	TO	100%	2
860.310/1984	CPRM	Granted Exploration	1,000	TO	100%	2
860.317/1984	CPRM	Granted Exploration	1,000	TO	100%	2



Tenement ID	Name on Title	Phase	Area (Ha)	State in Brazil	ALV beneficial interest at 31/06/2026	Notes
864.076/2020	Perth Recursos Minerais Ltda	Exploration Application	1,640	TO	100%	3
860.527/2020	Perth Recursos Minerais Ltda	Granted Exploration	1,984	GO	100%	3
864.179/2020	Perth Recursos Minerais Ltda	Granted Exploration	1,602	GO/TO	100%	3
864.180/2020	Perth Recursos Minerais Ltda	Granted Exploration	1,895	GO/TO	100%	3
864.181/2020	Perth Recursos Minerais Ltda	Exploration Application	1,964	GO/TO	100%	3
864.182/2020	Perth Recursos Minerais Ltda	Exploration Application	1,975	GO/TO	100%	3
860.603/2020	Perth Recursos Minerais Ltda	Exploration Application	1,548	GO	100%	3
864.183/2020	Perth Recursos Minerais Ltda	Exploration Application	969	GO/TO	100%	3
860.753/2021	Perth Recursos Minerais Ltda	Granted Exploration	1,250	GO	100%	3
860.752/2021	Perth Recursos Minerais Ltda	Granted Exploration	1,670	GO	100%	3
864.072/2022	Perth Recursos Minerais Ltda	Exploration Application	1,172	TO	100%	3
864.109/2022	Perth Recursos Minerais Ltda	Granted Exploration	1,329	GO/TO	100%	3
860.380/2022	Perth Recursos Minerais Ltda	Granted Exploration	1,881	GO	100%	3
860.382/2022	Perth Recursos Minerais Ltda	Granted Exploration	1,959	GO	100%	3
860.384/2022	Perth Recursos Minerais Ltda	Granted Exploration	1,951	GO	100%	3
860.385/2022	Perth Recursos Minerais Ltda	Granted Exploration	1,959	GO	100%	3
860.386/2022	Perth Recursos Minerais Ltda	Granted Exploration	1,797	GO	100%	3
860.387/2022	Perth Recursos Minerais Ltda	Granted Exploration	1,990	GO	100%	3
860.390/2022	Perth Recursos Minerais Ltda	Granted Exploration	1,978	GO	100%	3
860.391/2022	Perth Recursos Minerais Ltda	Granted Exploration	1,544	GO	100%	3
860.392/2022	Perth Recursos Minerais Ltda	Granted Exploration	597	GO	100%	3
860.393/2022	Perth Recursos Minerais Ltda	Granted Exploration	640	GO	100%	3
864.120/2022	Perth Recursos Minerais Ltda	Exploration Application	1,751	GO/TO	100%	3

Tenement ID	Name on Title	Phase	Area (Ha)	State in Brazil	ALV beneficial interest at 31/06/2026	Notes
864.121/2022	Perth Recursos Minerais Ltda	Exploration Application	1,622	GO/TO	100%	3
864.255/2022	Perth Recursos Minerais Ltda	Exploration Application	4	TO	100%	3
864.256/2022	Perth Recursos Minerais Ltda	Exploration Application	36	TO	100%	3
861.021/2022	Perth Recursos Minerais Ltda	Granted Exploration	1,591	GO	100%	3
861.023/2022	Perth Recursos Minerais Ltda	Granted Exploration	1,977	GO	100%	3
864.029/2023	Perth Recursos Minerais Ltda	Granted Exploration	1,871	TO	100%	6, 3
860.086/2023	Perth Recursos Minerais Ltda	Granted Exploration	1,388	GO	100%	3
860.087/2023	Perth Recursos Minerais Ltda	Granted Exploration	1,956	GO	100%	3
860.088/2023	Perth Recursos Minerais Ltda	Granted Exploration	779	GO	100%	3
861.107/2023	Perth Recursos Minerais Ltda	Exploration Application	1,040	TO	100%	4
861.108/2023	Perth Recursos Minerais Ltda	Exploration Application	1,604	TO	100%	4
861.109/2023	Perth Recursos Minerais Ltda	Exploration Application	1,877	TO	100%	4
861.110/2023	Perth Recursos Minerais Ltda	Exploration Application	1,691	TO	100%	4
861.173/2023	Perth Recursos Minerais Ltda	Exploration Application	924	TO	100%	4
861.174/2023	Perth Recursos Minerais Ltda	Exploration Application	1,317	TO	100%	4
861.175/2023	Perth Recursos Minerais Ltda	Exploration Application	1,599	TO	100%	4
861.177/2023	Perth Recursos Minerais Ltda	Exploration Application	1,897	TO	100%	4
861.178/2023	Perth Recursos Minerais Ltda	Exploration Application	1,950	TO	100%	4
861.181/2023	Perth Recursos Minerais Ltda	Exploration Application	1,407	TO	100%	4
861.182/2023	Perth Recursos Minerais Ltda	Exploration Application	1,861	TO	100%	4
861.184/2023	Perth Recursos Minerais Ltda	Exploration Application	1,960	TO	100%	4
861.185/2023	Perth Recursos Minerais Ltda	Exploration Application	1,972	TO	100%	4
860.908/2018	Afla Investimentos e Participações Ltda	Granted Exploration	1,972	GO/TO	up to 100%	5

Tenement ID	Name on Title	Phase	Area (Ha)	State in Brazil	ALV beneficial interest at 31/06/2026	Notes
860.909/2018	Afla Investimentos e Participações Ltda	Granted Exploration	1,924	GO	up to 100%	5
860.910/2018	Afla Investimentos e Participações Ltda	Granted Exploration	1,894	GO	up to 100%	5
860.332/2020	Afla Investimentos e Participações Ltda	Granted Exploration	1,984	GO	up to 100%	5
860.378/2020	Afla Investimentos e Participações Ltda	Granted Exploration	1,984	GO	up to 100%	5
864.251/2004	Mineração Mata Azul S.A	Granted Exploration	1827,85	TO	up to 100%	7
864.170/2007	Mineração Mata Azul S.A	Granted Exploration	1070,8	TO	up to 100%	7
864.612/2008	Mineração Mata Azul S.A	Granted Exploration	3122,48	TO	up to 100%	7
864.056/2010	Mineração Mata Azul S.A	Granted Exploration	95,64	TO/GO	up to 100%	7
864.381/2011	Mineração Mata Azul S.A	Granted Exploration	1456,99	TO/GO	up to 100%	7
864.059/2012	Mineração Mata Azul S.A	Granted Exploration	787,88	TO	up to 100%	7
860.066/2009	Mineração Mata Azul S.A	Granted Exploration	1796,62	TO/GO	up to 100%	7
860.067/2009	Mineração Mata Azul S.A	Granted Exploration	1875,6	TO/GO	up to 100%	7

**Tenement Interest Notes:**

- 1: Transfer of this area from Amazon Consultoria Em Mineração e Serviços Ltda to Perth Recursos Minerais Ltda (100% owned subsidiary of Alvo) will be lodged once granted. Area subject to an agreement between these parties and MMH Capital Ltd as disclosed under the Prospectus dated 30 July 2021 issued by Alvo Minerals Limited. Areas transferred under this agreement are subject to a 1% NSR royalty to MMH.
- 2: CPRM (Compania do Pesquisa de Recursos). These areas will be assigned to Alvo Minerals' subsidiary under the "Contract of Mining Rights Assignment Pledge" (Assignment Contract) with the CPRM. Under this agreement, Alvo has exploration commitments and will pay a royalty to CPRM as disclosed in the Prospectus dated 30 July 2021 issued by Alvo Minerals Limited
- 3: Perth Recursos Minerais Ltda is a Brazilian incorporated, wholly owned subsidiary of Alvo Minerals Ltd.
- 5: Alvo is in the early stages of earning-into up to 100% interest into the areas owned by Afla Investimentos e Participações Ltda, an area located adjacent to the Palma Project and considered highly prospective for VMS style mineralisation.
- 4: New Applications made by Alvo's Brazilian Subsidiary during the December 2023 quarter
- 6: Areas granted during the December 2023 quarter
- 7: Alvo is in the early stages of earning-into up to 100% interest into the areas owned by Mineração Mata Azul S.A, a Project area hosting the Bluebush IAC REE Project.

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<sup>i</sup> For details of the Serra Verde Mineral Resource Estimate, please refer to Serra Verde presentation:  
<https://www.cetem.gov.br/antigo/images/palestras/2015/iiisbtr/05-denilson-fonseca.pdf>

<sup>ii</sup> ASX Announcement 2 November 2023 - Metallurgical Tests Confirm Bluebush as Ionic Clay

<sup>iii</sup> ASX Announcement 10 October 2023 – Diamond Drill Rig Mobilised as Conviction Grows at Bluebush

<sup>iv</sup> ASX Announcement 8 November 2023 – Thick Saprolite Clays Intercepted at Bluebush Project

<sup>v</sup> ASX Announcement 6 December 2023 – Bluebush Option Signed Diamond Hole Results Thick High Grade

<sup>vi</sup> ASX Announcement 30 January 2024 – Alvo Acquires REE Project in New High Grade Province

<sup>vii</sup> ASX Announcement 31 October 2023 – Appointment of CFO

## Appendix 5B

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

Name of entity

<b>Alvo Minerals Limited</b>
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ABN

<b>37 637 802 496</b>
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Quarter ended ("current quarter")

<b>31 December 2023</b>
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<b>Consolidated statement of cash flows</b>	<b>Current quarter \$A'000</b>	<b>Year to date (12 months) \$A'000</b>
<b>1. Cash flows from operating activities</b>		
1.1 Receipts from customers	-	-
1.2 Payments for		
(a) exploration & evaluation	(976)	(3,734)
(b) development	-	-
(c) production	-	-
(d) staff costs	(77)	(402)
(e) administration and corporate costs	(176)	(788)
1.3 Dividends received (see note 3)	-	-
1.4 Interest received	18	38
1.5 Interest and other costs of finance paid	(1)	(4)
1.6 Income taxes paid	-	-
1.7 Government grants and tax incentives	-	-
1.8 Other (provide details if material)	-	-
<b>1.9 Net cash from / (used in) operating activities</b>	<b>(1,212)</b>	<b>(4,890)</b>

<b>2. Cash flows from investing activities</b>		
2.1 Payments to acquire or for:		
(a) entities	-	-
(b) tenements	-	(31)
(c) property, plant and equipment	(9)	(230)
(d) exploration & evaluation	-	-
(e) investments,	-	-
(f) other non-current assets, including bonds and deposits	-	-



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

Consolidated statement of cash flows		Current quarter \$A'000	Year to date (12 months) \$A'000
2.2	Proceeds from the disposal of:		
	(a) entities	-	-
	(b) tenements	-	-
	(c) property, plant and equipment	-	-
	(d) investments	-	1,500
	(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)	-	291
<b>2.6</b>	<b>Net cash from / (used in) investing activities</b>	<b>(9)</b>	<b>1,530</b>

<b>3.</b>	<b>Cash flows from financing activities</b>		
3.1	Proceeds from issues of equity securities (excluding convertible debt securities)	-	5,075
3.2	Proceeds from issue of convertible debt securities	-	-
3.3	Proceeds from exercise of options	-	-
3.4	Transaction costs related to issues of equity securities or convertible debt securities	(32)	(493)
3.5	Proceeds from borrowings	-	-
3.6	Repayment of borrowings	-	-
3.7	Transaction costs related to loans and borrowings	-	-
3.8	Dividends paid	-	-
3.9	Other (payment of principal element of lease liabilities)	(10)	(30)
<b>3.10</b>	<b>Net cash from / (used in) financing activities</b>	<b>(42)</b>	<b>4,552</b>

<b>4.</b>	<b>Net increase / (decrease) in cash and cash equivalents for the period</b>		
4.1	Cash and cash equivalents at beginning of period	2,970	535
4.2	Net cash from / (used in) operating activities (item 1.9 above)	(1,212)	(4,890)
4.3	Net cash from / (used in) investing activities (item 2.6 above)	(9)	1,530
4.4	Net cash from / (used in) financing activities (item 3.10 above)	(42)	4,552

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

<b>Consolidated statement of cash flows</b>		<b>Current quarter \$A'000</b>	<b>Year to date (12 months) \$A'000</b>
4.5	Effect of movement in exchange rates on cash held	(15)	(35)
<b>4.6</b>	<b>Cash and cash equivalents at end of period</b>	<b>1,692</b>	<b>1,692</b>

<b>5.</b>	<b>Reconciliation of cash and cash equivalents</b> at the end of the quarter (as shown in the consolidated statement of cash flows) to the related items in the accounts	<b>Current quarter \$A'000</b>	<b>Previous quarter \$A'000</b>
5.1	Bank balances	542	720
5.2	Call deposits	1,150	2,250
5.3	Bank overdrafts	-	-
5.4	Other (provide details)	-	-
<b>5.5</b>	<b>Cash and cash equivalents at end of quarter (should equal item 4.6 above)</b>	<b>1,692</b>	<b>2,970</b>

<b>6.</b>	<b>Payments to related parties of the entity and their associates</b>	<b>Current quarter \$A'000</b>
6.1	Aggregate amount of payments to related parties and their associates included in item 1	77
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.*

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

<b>7. Financing facilities</b>	<b>Total facility amount at quarter end \$A'000</b>	<b>Amount drawn at quarter end \$A'000</b>
<i>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.</i>		
7.1 Loan facilities	-	-
7.2 Credit standby arrangements	-	-
7.3 Other (please specify)	-	-
<b>7.4 Total financing facilities</b>	-	-
<b>7.5 Unused financing facilities available at quarter end</b>		-
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.		
N/A		

<b>8. Estimated cash available for future operating activities</b>	<b>\$A'000</b>
8.1 Net cash from / (used in) operating activities (item 1.9)	(1,212)
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)	(1,212)
8.4 Cash and cash equivalents at quarter end (item 4.6)	1,692
8.5 Unused finance facilities available at quarter end (item 7.5)	-
8.6 Total available funding (item 8.4 + item 8.5)	1,692
<b>8.7 Estimated quarters of funding available (item 8.6 divided by item 8.3)</b>	<b>1.40</b>
<i>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.</i>	
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: No. The entity has reduced discretionary expenditure at a level which ensures cash reserves are maintained at a level sufficient to ensure the ongoing viability of the entity.	
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: Yes. The Board and management are constantly reviewing the capital adequacy of the entity and considering various options to ensure sufficient cash is available to fund exploration operations including strategic investments at entity and asset levels. .	

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


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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: Yes. The Board will ensure that either through reducing discretionary expenditure and/or an investing/equity transaction sufficient cash reserves will be maintained to ensure operations continue.

*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: 31 January 2024

Authorised by: the Board

## 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.