

Assays Confirm Cu, Zn, Ag & Au Discovery at Touro

HIGHLIGHTS

- Drill assays received from the discovery hole at Touro (PDT-117) confirm high-grade Copper, Zinc, Silver and Gold mineralisation, with higher grades of Silver and Gold intercepted than typically seen elsewhere in the Palma Project.
- Results include:
- **9.3m @ 1.1% CuEq** (0.7% Cu, 1.6% Zn, 0.07% Pb, 19g/t Ag and 0.09g/t Au) from 55.3m
 - Inc. **4.7m @ 1.7% CuEq** (0.95% Cu, 2.65% Zn, 0.01% Pb, 17.5g/t Ag and 0.03g/t Au) from 55.3m and
 - And **1.6m @ 1.4% CuEq** (0.9% Cu, 1.5% Zn, 0.27% Pb, 48g/t Ag and 0.31 g/t Au) from 63m.
- All drilling completed to date at Touro Prospect has intercepted massive, semi-massive or disseminated sulphides of Cu and Zn, confirming visual mineralisation along 750m strike of the 2.2km long by 750m deep target. Four additional drillholes are awaiting assay results.
- Drilling will re-start this week with the deep hole PDT-122 underway, which was unable to be completed before workers took leave for Christmas.

Alvo Minerals Limited (ASX: ALV) (“Alvo” or “the Company”) is pleased to update shareholders on the ongoing drill program at the 100% owned, Touro Prospect, located within the wider Palma Copper-Zinc Volcanic Massive Sulphide (VMS) Project in Central Brazil. Assays from the first hole drilled at Touro (PDT-117) have been received confirming the visual estimates reported previously¹ which indicated high grades of copper and zinc, with material levels of silver and gold also intercepted.

All diamond holes completed at Touro to date have intersected Cu and Zn sulphides hosted within the alteration sequence that stretches for 1.1km along strike on surface. Drilling to date has shallow tested approximately 750m of this strike (Figure 1). The current hole (PDT-122), designed to test the deeper electromagnetic conductor which stretches for >2.2km along strike and up to 750m below surface, has yet to reach target depth due to operational issues which could not be resolved before the crews left for Christmas.

Rob Smakman, Alvo’s Managing Director commented:

“The grades of Copper and Zinc have been returned as expected from the visuals and based on our understanding of the broader Palma Project. We are excited that Touro is likely to be a material discovery. A positive surprises for us are the levels of Silver and Gold intercepted, these are amongst our highest grades seen so far across Palma. We welcome higher grades of these precious commodities which can be typical in other VMS districts around the world.

“Operational issues have delayed completion of the deep hole (PDT-122). We expect to reach the deeper target early in the next week or so and we are excited about what the deeper conductor could represent.

“I am itching to get back on the ground and will be on-site in Brazil from next week.”

¹ ASX Announcement 9 December 2025 – Massive Cu & Zn Sulphides Expands Touro Discovery

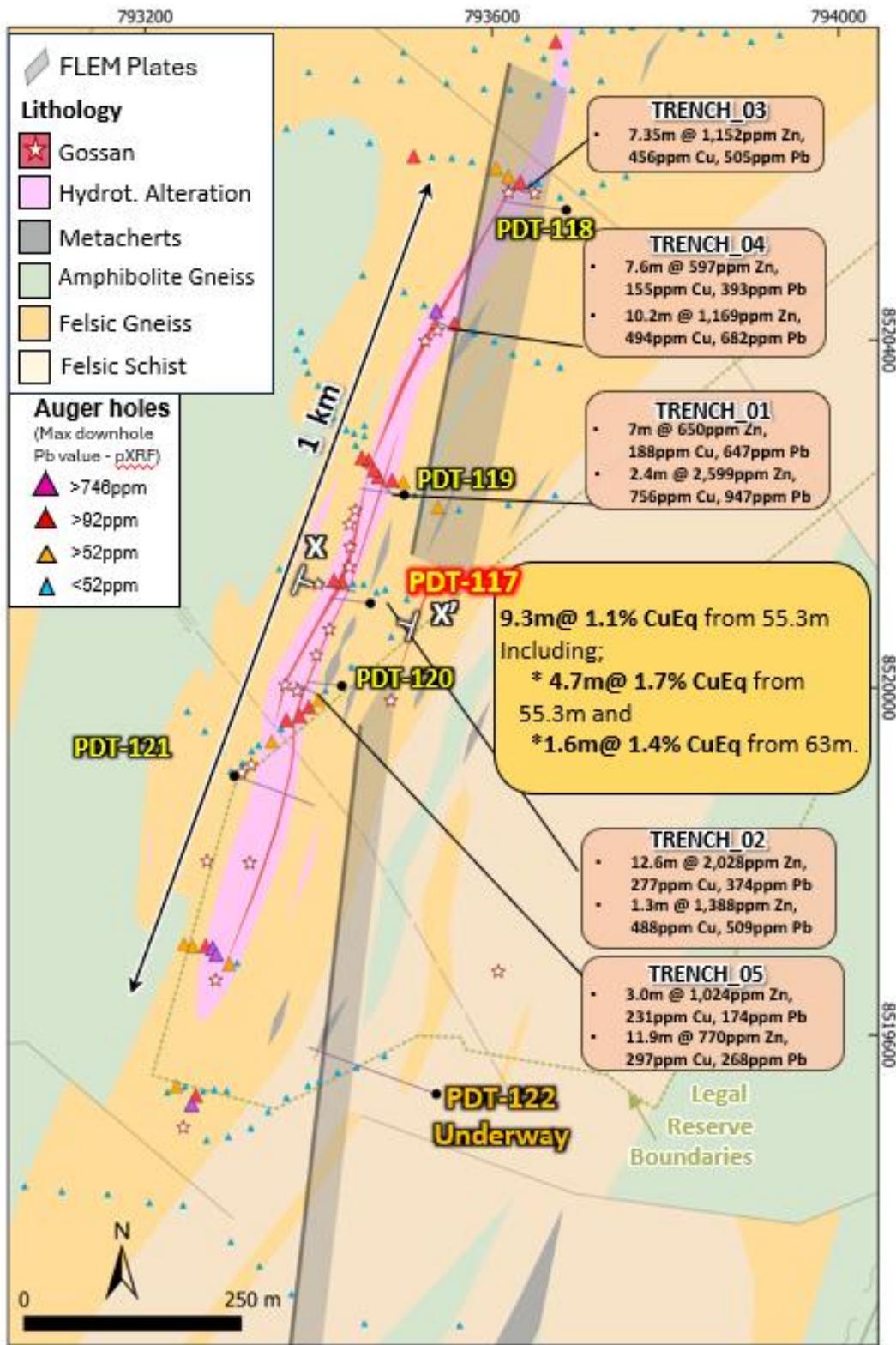


Figure 1: Touro Prospect plan including drilling to date (results reported in this announcement from hole PDT-117), trench locations, geochemical anomaly, gossans and the hydrothermal alteration zone. The FLEM Plates are included in shaded grey. Drilling is underway on hole PDT-122 which is targeting the deeper FLEM conductor below the surface mineralisation

Touro Exploration Update

Assay results have been received from the first hole drilled (PDT-117) in the current campaign at the Palma VMS Project, which targeted shallow mineralisation below soils, trenching and multiple gossan occurrences at the Touro prospect in Central Brazil (Figures, 1, 2, & 3).

The results indicated a broad mineralised zone, highlighted with 2 higher grade zones:

- **9.3m@ 1.1% CuEq (0.7% Cu, 1.6% Zn, 0.07% Pb, 19g/t Ag and 0.09g/t Au)** from 55.3m Including:
 - **4.7m@ 1.7% CuEq (0.95% Cu, 2.65% Zn, 0.01% Pb, 17.5g/t Ag and 0.03g/t Au)** from 55.3m and
 - **1.6m@ 1.4% CuEq (0.9% Cu, 1.5% Zn, 0.27% Pb, 48g/t Ag and 0.31 g/t Au)** from 63m.

Full laboratory results are presented in Table 1, along with the table extracted from ASX release of 19 November 2025 reporting the discovery hole (in Table 2).

Drilling is set to re-start this week after the Christmas break and drilling will continue on hole PDT-122. This hole was only partially completed in 2025, due to a combination of logistical and mechanical issues. PDT-122 is targeting the deeper conductor which extends for over 2km along strike and down to 750m below surface.

Assay results from the completed holes (PDT-118-121) are also expected in coming weeks as the samples move through the lab.

Table 1: Table of results PDT-117 Touro Prospect, Palma Project

Hole #	From (m)	Length (m)	Cu %	Zn %	Pb %	Ag g/t	Au g/t	Length (m)	From (m)	Cu %	Zn %	Pb %	Ag ppm	Au ppm	CuEq %	ZnEq %
PDT-117	55.3	0.7	0.64	0.65	0.02	13.0	0.00									
PDT-117	56.0	1.0	1.21	1.66	0.02	18.0	0.02									
PDT-117	57.0	1.0	0.71	2.35	0.01	14.0	0.02									
PDT-117	58.0	1.0	0.62	4.76	0.01	13.0	0.09									
PDT-117	59.0	1.0	1.48	3.21	0.01	28.0	0.02	4.7	55.3	0.95	2.65	0.01	17.5	0.03	1.7	5.0
PDT-117	60.0	1.0	0.02	0.05	0.01	0.0	0.02									
PDT-117	61.0	1.0	0.01	0.03	0.01	0.0	0.00									
PDT-117	62.0	1.0	0.10	0.05	0.10	21.0	0.12									
PDT-117	63.0	0.8	0.30	0.42	0.45	60.0	0.42									
PDT-117	63.8	0.8	1.53	2.66	0.08	36.0	0.21	1.6	63.0	0.90	1.50	0.27	48.0	0.31	1.4	4.1
								9.3	55.3	0.65	1.61	0.07	19.3	0.09	1.1	3.3

Table 2: Estimated visual sulphides for hole PDT-117, extracted from ASX announcement 19 November 2025

				Mineralisation / Sulphide %					
From	To	Interval	Litho-code	Cpy	Sph	Ga	Po	Py	Lithotype
51.45	53.35	1.90	GBHT	-	-	-	-	1%	Hydrothermal Alteration
53.35	55.30	1.95	DISS	3%	-	-	-	4%	Disseminated Sulphide
55.30	58.05	2.70	SMS	10%	8%	-	20%	2%	Semi-massive Sulphide
58.05	59.85	1.80	MS	15%	15%	-	45%	5%	Massive Sulphide
59.85	63.00	3.15	BFSH	0.5%	-	Trace	0.5%	0.5%	Hydrothermal alteration
63.00	64.60	1.60	DISS	5%	5%	2%	5%	3%	Disseminated Sulphide

Touro VMS Prospect

Touro is a recently discovered VMS prospect featuring a well-defined mineralised trend extending at surface for over 1,100m. The mineralisation contains numerous gossans on surface containing up to 7.5% Zn, 0.2% Cu, and 1.0% Pb and is supported by coincidence soil and auger geochemical anomalies, trench sampling and 2 large sets of fixed loop electromagnetic (FLEM) conductors. The FLEM conductors extend over 2,200m along strike and down to 750m below surface and have conductivity thickness values ranging from (northern plates) and for the Southern.

Geological mapping on surface and in the trenches encountered mineralised gossans (which included the zinc bearing alteration mineral gahnite) within a hydrothermally altered contact zone located between mafic and felsic rocks.

Results from detailed FLEM surveys across Touro revealed an extensive anomaly, aligned and coincident with the soil/auger anomaly described above. Inversion of this FLEM anomaly has highlighted 2 sets of conductor plates, a set to the north (ranging from 39-46 Siemens) and a set to the south (75-90 Siemens) which extend beyond the geological/geochemical anomaly. Conductor plates are interpreted to be zones of relatively higher conductance than the surrounds. Massive sulphides are generally highly conductive (especially chalcopyrite and pyrrhotite).

All holes are being surveyed with a downhole electromagnetic probe, with results and interpretations ongoing.

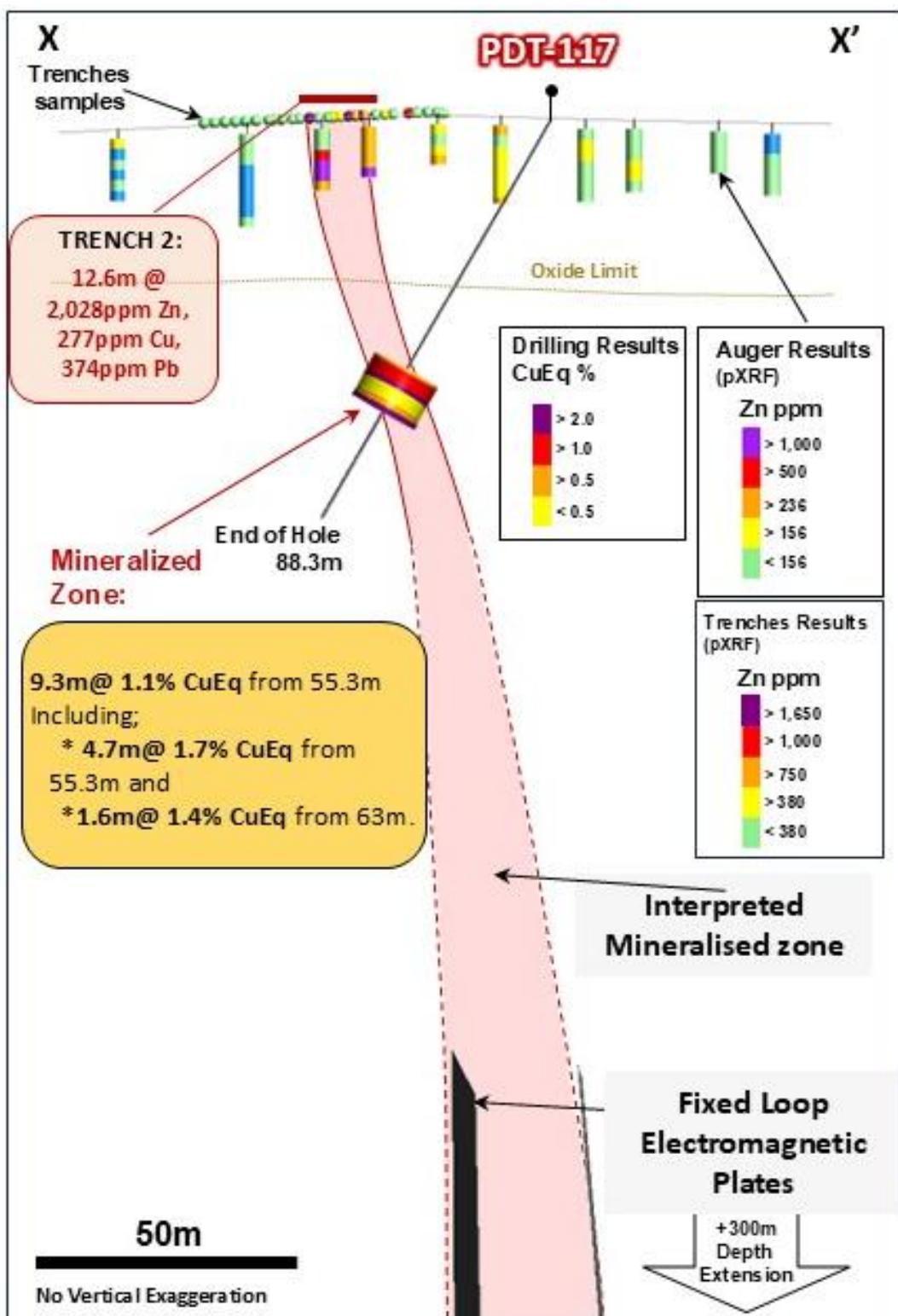


Figure 2: Touro Prospect cross section through PDT-117 and Trench 2. A mineralised zone which included semi-massive, disseminated sulphides and strong hydrothermal alteration was intercepted from 55.3 to 64.6m downhole

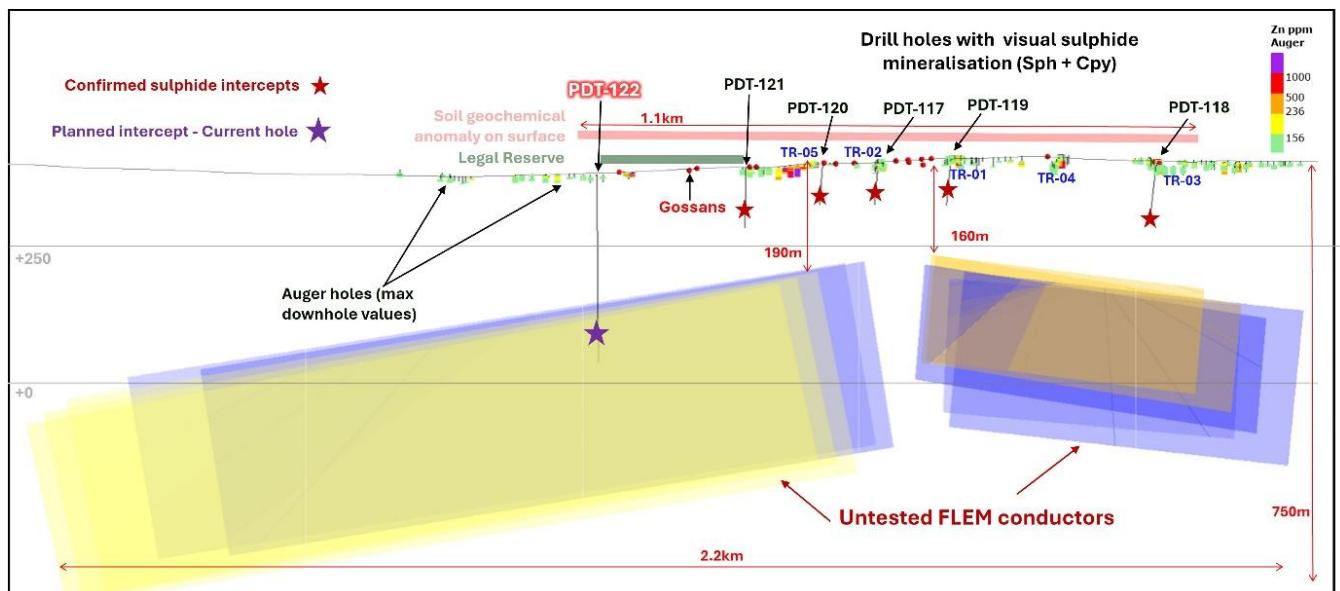


Figure 3: Long section at Touro- indicating the depth and strike length of the prospect which at surface is ~1.1km and over 2.2km at depth. Included are the approximate pierce points of holes PDT-117 - PDT-121 (PDT-117 reported today) and the target intercept depth for current hole- PDT122.

The Palma Project

Alvo's 100% owned Palma Cu-Zn Project (see Figure 4) hosts a Total MRE across three deposits² of 7.6Mt @ 2.02% CuEq (or 6.2% ZnEq) for 153kt of contained CuEq tonnes (0.7% Cu, 3.4% Zn, 0.6% Pb, 16g/t Ag and 0.03 g/t Au), demonstrating the potential for Palma to emerge as a significant VMS district.

All deposits at Palma remain open along strike and at depth and have potential to expand and upgrade with additional drilling, geological re-interpretation, metallurgy and engineering studies.

Field work conducted throughout 2025 has comprised auger drilling, soil sampling, geophysical surveys and geological mapping across Palma where Alvo has >1,000km² of ground under tenure and >80km of strike of the prospective geological package. Palma hosts VMS style mineralisation where multiple deposits can typically form in similar geological settings (cluster). Alvo's exploration team have defined and are currently advancing over 30 new Prospects.

Ongoing exploration at Palma is designed to integrate the disciplines of geology, geochemistry and geophysics at the different prospects, gradually refining them until the most prospective are ready to be drilled. Alvo is unique amongst its peers as it has an experienced in-house team with access to cutting-edge equipment- allowing for low-cost effective exploration to continue.

Next Steps

- Drilling at Palma Project targets: Touro - **Underway**, Esperanza and Entre Rios - **Pending**
- Geochemical sampling, geophysical surveying and mapping across exploration prospects at Palma in preparation for drilling - **Ongoing**
- Bluebush and Ipora HREE Project reviews - **Ongoing**
- New Project Copper and Gold project reviews - **Ongoing**

² For details of the Palma Mineral Resource Estimate, please refer to ALV ASX Announcement dated 19 July 2024: 65% Increase in Palma Resource to 7.6Mt @ 2.0% CuEq

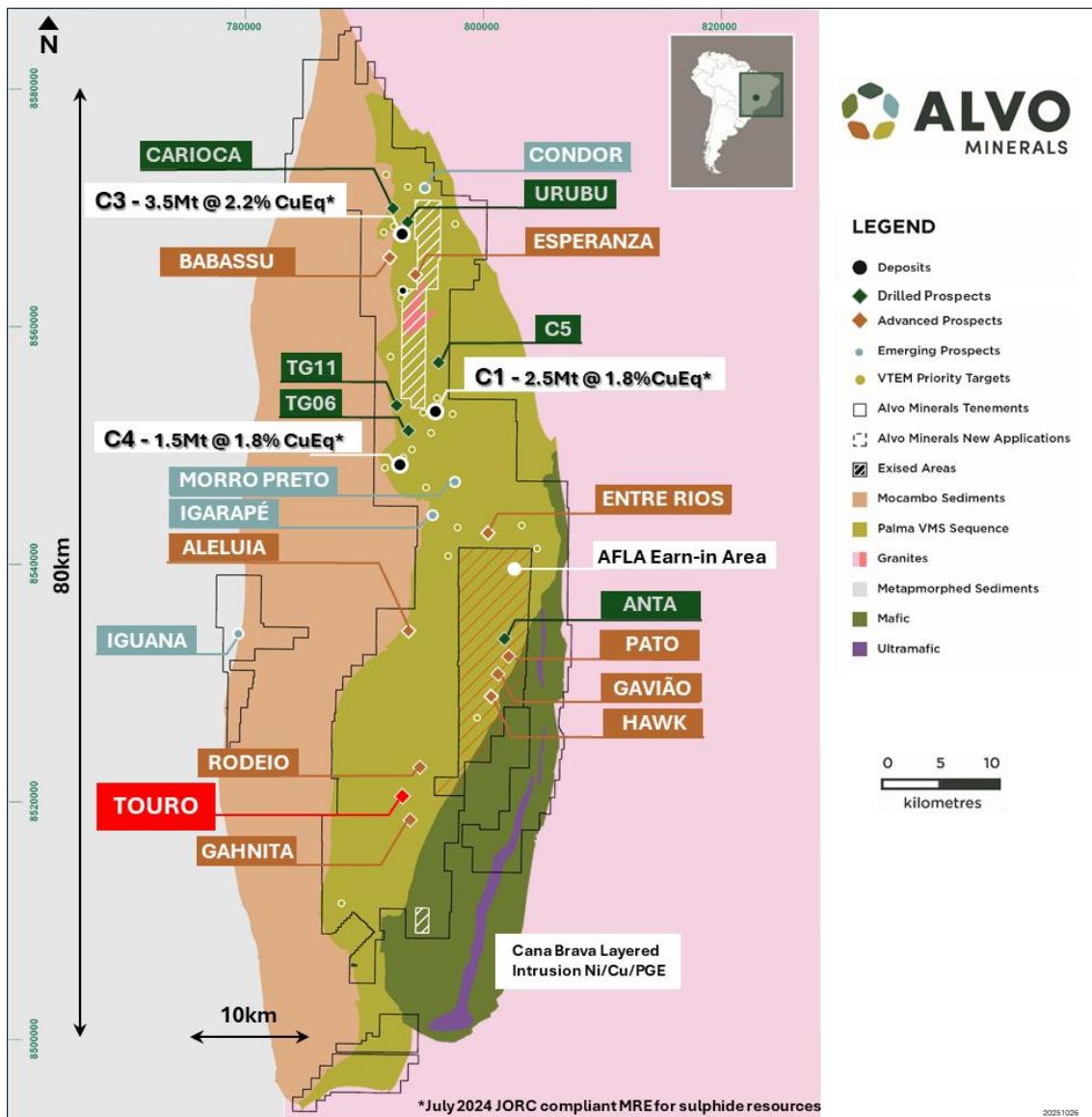


Figure 4: Alvo's Palma Cu-Zn Project is a District Scale VMS with known deposits- C1, C3 and C4. Alvo has >1,000km² under tenure at Palma- including >80km of strike of the VMS sequence

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

Enquiries

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About Alvo

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

The Company was founded to explore for base and precious metals, hunting high-grade copper and zinc at its Palma Copper Zinc Project in Tocantins State, Brazil. Palma has a JORC 2012 Mineral Resource Estimate of 7.6Mt @ 2.0% CuEq or 6.2% ZnEq (0.7% Cu, 3.4% Zn, 0.6% Pb & 16g/t Ag and 0.03g/t Au). This MRE is categorised as Indicated: 3.3Mt @ 2.3% CuEq or 6.9% ZnEq and Inferred: 4.3Mt @ 1.8% CuEq or 5.6% ZnEq.

Alvo is also exploring for Rare Earth Elements (REE) at its two Ionic Clay REE projects near its exploration base in Central Brazil - Bluebush and Ipora.

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.

* *For details of the Palma Mineral Resource Estimate, please refer to Table 4 and ALV ASX Announcement dated 19 July 2024: 65% Increase in Palma Resource to 7.6Mt @ 2.0% CuEq*

Management Team:

Graeme Slattery – Non-Executive Chairman

Rob Smakman – Managing Director

Beau Nicholls – Non-Executive Director

Projects:

Palma VMS Cu-Zn Project

Bluebush Ionic Clay REE Project

Ipora REE Project

Shares on Issue: 243,763,685

ASX Code: **ALV**



References to Previous ASX Announcements

"Prospectus" dated 18 October 2021 issued by Alvo Minerals Limited

"Preliminary Metallurgical Testwork Indicates Excellent Recoveries" dated 9 November 2022 issued by Alvo Minerals Limited

"New VMS Discovery at Palma Delivers Broadest Base Metals Intercept to date" dated 1 August 2023 issued by Alvo Minerals Limited

"65% Increase in Palma Resource to 7.6Mt @ 2.0% CuEq" dated 19 July 2024 issued by Alvo Minerals Limited

"New Targets at Palma Copper-Zinc Project" dated 22 October 2025 issued by Alvo Minerals Limited

"Zinc-Copper Potential Confirmed at Touro Prospect, Palma" dated 28 October 2025 issued by Alvo Minerals Limited

"Mineralised Copper and Zinc Identified in Trenching at Touro" dated 14 November 2025 issued by Alvo Minerals Limited

"Massive Sulphides Intercepted in First Drillhole at Touro", dated 19 November 2025 issued by Alvo Minerals Limited

"Drilling at Palma Cu-Zn Project Confirms Touro Discovery", dated 25 November 2025 issued by Alvo Minerals Limited

"Massive Cu & Zn Sulphides Expands Touro Discovery", dated 9 December 2025 issued by Alvo Minerals

Table 34: Collar locations for Diamond drillholes at Touro Prospect, Palma Project. Newly reported holes are in bold.

Note hole PDT-121 was drilled as a 'scissor hole', hence the different azimuth

Drill hole ID	EASTING (m)	NORTHING (m)	RL (m)	TOTAL LENGTH (m)	AZIMUTH (°)	DIP (°)
PDT-117	793,460	8,520,097	396	88.30	280	-60
PDT-118	793,686	8,520,550	414	130.3	280	-55
PDT-119	793,499	8,520,222	415	98.5	280	-60
PDT-120	793,427	8,520,002	396	85.6	280	-64
PDT-121	793,303	8,519,898	456	145.3	110	-50

Table 5: Palma Mineral Resource Estimate, July 2024

Deposit	Category	Cut-off Grade: NSR**	Tonnes (Mt)	NSR USD	Cu %	Metal Cu (t)	Zn %	Metal Zn (t)	Pb %	Metal Pb (t)	Ag ppm	Metal Ag (Oz)	Au ppm	Metal Au (Oz)	CuEq*** (%)	CuEq (t)	ZnEq*** (%)
C1	Indicated	50	1.3	148	0.7	9,600	2.5	33,900	0.5	7,200	13	540,000	0.01	600	1.7	23,300	4.7
	Inferred		1.2	173	0.5	6,500	3.8	45,800	0.7	8,000	17	640,000	0.01	500	2.0	23,400	6.4
C1 Total			2.5	160	0.6	16,100	3.1	79,700	0.6	12,500	14	1,180,000	0.01	1,100	1.8	46,700	5.5
C3	Indicated	50	2.0	236	1.1	21,600	5.0	97,200	0.2	4,500	15	920,000	0.04	2,200	2.7	53,100	8.4
	Inferred		1.6	144	1.0	14,900	2.0	31,500	0.1	2,100	10	523,000	0.04	1,800	1.7	25,800	5.1
C3 Total			3.5	195	1.0	36,500	3.7	128,600	0.2	6,600	13	1,440,000	0.04	4,000	2.2	78,900	6.9
C4	Inferred	80	1.5	150	0.2	3,200	3.3	50,600	1.3	19,700	28	1,380,000	0.03	1,300	1.8	28,000	5.5
C1+C3	Indicated	50	3.3	200	0.9	31,200	4.0	131,100	0.4	11,700	14	1,460,000	0.03	2,800	2.3	76,400	6.9
C1+C3+C4	Inferred	(50 & 80)	4.3	154	0.6	24,700	3.0	127,800	0.7	29,800	18	2,540,000	0.03	3,600	1.8	77,300	5.6
Total Sulphides			7.6	174	0.7	55,800	3.4	258,900	0.5	41,500	16	4,000,000	0.03	6,400	2.0	153,600	6.2

* Rounding discrepancies may occur

** The NSR (Net Smelter Return) and Cu/ZnEq values are reported based on copper, zinc, silver, lead and gold prices of US\$8,914/t Copper, US\$3,017/t Zinc, US\$2,173/t Lead, US\$23.3/oz Silver, and US\$1,891/oz gold (price deck based 3-year average Metals Prices). Recovery factor for C3: Cu; 95%, Zn; 86%, Pb; 77%, Ag 74% & Au 70%. Recovery for C1 and C4: Cu; 93%, Zn; 90%, Pb; 86%, Ag 96% & Au 85%. The NSR calculation is as follows: NSR (US\$/t) = [Cu %] * {Price Cu} * [RecCu %] + [Zn %] * {Price Zn} * [RecZn] + [Pb %] * {Price Pb} * [RecPb] + [Ag ppm] * {Price Ag} * [RecAg]/31.1035 + [Au ppm] * {Price Au} * [RecAu]]/31.1035 (Adjustments are necessary to normalized to US\$/t basis).

***The CuEq calculation is as follow: Cu+(Cu*((Zn % * RecZn*Price Zn) + (Pb % * Price Pb * RecPb) + (Ag ppm * Price Ag * RecAg) + (Au ppm * Price Au * RecAu)) / (Cu % * Price Cu * RecCu). ZnEq is calculated with the same formula as CuEq, swapping Cu and Zn.

Forward Looking Statements

Statements regarding plans with respect to Alvo's projects and its exploration programs 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.

The information contained in this announcement that relates to information attributed to or compiled from the 'Mineral Resource Estimate' is based upon information compiled by Mr Marcelo Batelochi, a Competent Person and Member of the Australasian Institute of Mining and Metallurgy. Mr Batelochi is a full-time employee of MB Consultaria 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 Batelochi consents to the inclusion in this announcement of the matters based upon the information in the form and context in which it appears.

Appendix: JORC Tables

Section 1 Sampling Techniques and Data (Criteria in this section apply to all succeeding sections, note data in this section is extracted from historic reports).

Criteria	JORC Code explanation	Commentary
<i>Sampling techniques</i>	<ul style="list-style-type: none"> <i>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.</i> <i>Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used.</i> <i>Aspects of the determination of mineralisation that are Material to the Public Report.</i> <i>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 Nickel that has inherent sampling problems. Unusual commodities or mineralisation types (eg submarine nodules) may warrant disclosure of detailed information.</i> 	<p>Diamond drilling</p> <ul style="list-style-type: none"> Sampling was typically 1m in mineralised zones unless the geologist determined a different length was appropriate. Areas away from the main mineralised zones may have been sampled as 2m composite samples. Sampling was supervised by Alvo geologists, who selected the sampling intervals. Half-core samples were taken and dispatched to the accredited independent SGS Geosol laboratory in Vespasiano (MG), Brazil, for analysis. <p>Trenches and channel sampling</p> <ul style="list-style-type: none"> Trenches were dug with a backhoe, perpendicular to the general mineralised trend to a depth of between 1-3m. The trenches were sampled along horizontal and oblique channels ranging from 1 to 2 meters in length. North wall was sampled on each trench. Each sample, weighing approximately 3 kg, was bagged on site and taken to Alvo's Core shed. <p>Auger Drilling</p> <ul style="list-style-type: none"> Auger geochemical sampling was completed on 1 or 2 metres continuous samples. The samples are homogenised on a tarp and a representative sample of approximately 1kg is bagged and labelled. Sample information is collected in the field on a tablet. The samples are sent to Alvo's core shed, where samples are dried over 24 hours at 600C, broken up and sieved to - 1mm. These Once sieved, the samples were transferred to plastic bags and placed in a test stand and analysed by a portable XRF instrument (SciAps X-555 analyser 3-Beam geochemical scan, using soil mode). After the reading, the samples were placed into secure storage for future work.
<i>Drilling techniques</i>	<ul style="list-style-type: none"> <i>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).</i> 	<p>Diamond Drilling</p> <ul style="list-style-type: none"> Standard-tube diamond drilling by independent drill contractor (Willemitta Sondagens from Minas Gerais, Brazil). Drillhole diameter was variable- HW for collar and friable material, HQ diameter was generally used until the base of complete oxidation and then the diameter reduced to NQ. All holes are down-hole oriented using Reflex Gyro Sprint-IQTM tool. Drill core is oriented using NQ ACT 3 orienting tool from Reflex. <p>Auger Drilling</p> <ul style="list-style-type: none"> Auger drilling was completed using a hydraulic auger drilling machine with a 4.5" auger bit and 2m helicoidal rods. The drilling is open hole, meaning there is a significant chance of contamination from the surface and other parts of the auger hole. Holes are vertical and not oriented.
<i>Drill sample recovery</i>	<ul style="list-style-type: none"> <i>Method of recording and assessing core and chip sample recoveries and results assessed.</i> <i>Measures taken to maximise sample recovery and ensure representative nature of the samples.</i> 	<p>Diamond Drilling</p> <ul style="list-style-type: none"> Recoveries are recorded by both the driller's assistant (on site) and Alvo field assistant once the core has been received at the core shed. Recoveries are measured by comparing the length of the drill run with the amount of core actually recovered. Recovery has averaged >95% for all drilling to date.

Criteria	JORC Code explanation	Commentary
	<ul style="list-style-type: none"> 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. 	<ul style="list-style-type: none"> Drillers are penalised for poor recovery and are constantly supervised at the rig to ensure care is taken to ensure high recoveries. No relationship is believed to exist between recovery and grade.
Logging	<ul style="list-style-type: none"> Whether core and chip samples have been geologically and geotechnically logged to a level of detail to support appropriate Mineral Resource estimation, mining studies and metallurgical studies. Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc) photography. The total length and percentage of the relevant intersections logged. 	<p>Diamond Drilling</p> <ul style="list-style-type: none"> All holes have been geologically logged by Alvo geologists, to a detail relevant for inclusion in an MRE. Care is taken to ensure metallurgical factors are included (specifically the % of and type of sulphides present). Basic geotechnical logging is standard. They are adept at recognising different sulphide species and have tools (such as portable XRF analyser) available to confirm when in doubt. Logging and core processing is both qualitative and quantitative. Core is photographed wet and dry, measured for magnetic susceptibility, conductivity, density, RQD and basic geotechnical logging. All core is structurally logged by geologists to look for planar and linear features. Measurements of these are taken on both oriented and non-oriented core. All drilling results reported have been logged onsite by Alvo geologists. Logs include hole number, hole location, date drilled, collar, dip and azimuth as well as qualitative data such as rock type, and descriptions of the colour, alteration, weathering, grainsize, mineralisation and texture. All metreage reported has been logged, but not all metres will be sampled as the mineralisation is visual. <p>Trenches</p> <ul style="list-style-type: none"> The trenches were geologically logged by Alvo geologists (lithology, alteration, weathering, colour and structural readings). The logging is both qualitative and quantitative in nature, the level of which could be used to support an MRE by adding surficial context to the geological model. All trenches were logged. <p>Auger Drilling</p> <ul style="list-style-type: none"> All holes were logged by Alvo Minerals geologists or field technicians, detailing the colour, weathering, alteration, texture and any geological observations. Care is taken to identify transported cover from in-situ saprolite/clay zones and the moisture content.
Sub-sampling techniques and sample preparation	<ul style="list-style-type: none"> 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. 	<p>Diamond drilling</p> <ul style="list-style-type: none"> Drill core is sawn in half and one half (consistently the same half) of the core is sampled. The remaining half is stored by Alvo in its dedicated facility. Sample size, being generally 1m sample intervals, is appropriate to the material being sampled and considered to be representative. <p>Trenches</p> <ul style="list-style-type: none"> Once samples arrive at the core shed, samples are dried for 24 hours in an oven at 60 °C. After drying, the samples were disaggregated and sieved through a 1 mm screen (18 mesh). The material retained on the sieve was crushed by percussion using an iron mortar and pestle until approximately 75% of the sample mass was smaller than 1 mm, then combined with the fraction that had previously passed through the 18 mesh. The resulting composite sample was thoroughly homogenized, and a sub-sample was sieved through a 45# mesh. Approximately 50 g of this fine fraction was then transferred to plastic bags and placed in a test stand and analysed by a portable X-ray

Criteria	JORC Code explanation	Commentary
	<ul style="list-style-type: none"> Whether sample sizes are appropriate to the grain size of the material being sampled. 	fluorescence (XRF) instrument (SciAps X-555 analyser 3-Beam geochemical scan, using soil mode). After the reading, the samples were placed into secure storage for future work.
Quality of assay data and laboratory tests	<ul style="list-style-type: none"> 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. 	<p>Diamond drilling</p> <ul style="list-style-type: none"> SGS Geosol Laboratorios Ltda (SGS) are used for multi element and gold analyses on half diamond core. The lab techniques described below are considered appropriate for the style of mineralisation at the Palma Project <ul style="list-style-type: none"> Half drill core samples are dried, crushed until 75% pass 3mm, homogenised and split with 250-300g pulverised until 95% passing 150# Gold is determined by 30g fire assay Multi element (including Cu, Zn, Pb and Ag) are determined by multi-acid digestion and ICP-OES. Samples above 1% Zn, Cu, Pb or 100 g/t Ag are re-tested using a higher lower detection limit. Samples above 5% Pb are re-tested using a higher detection limit. The QA/QC data includes standards, blanks, duplicates and laboratory checks. Alvo inserts internationally certified standards at a rate of 1 in 10 samples, blanks 1 in ~25 samples. Duplicates are selected from the crushed samples at a rate of 1 in 20 samples and follow the same assaying procedure. <p>Alvo has reviewed the QA/QC data for all lab samples and are satisfied the results are within acceptable limits.</p> <p>Trenches and Auger samples</p> <ul style="list-style-type: none"> The pXRF assays were carried out on dried and milled samples (-45 mesh), which were placed in plastic bags, and analysed using a portable XRF instrument (SciAps X-555 analyser, three-beam geochemical scan in soil mode). After analysis, the samples were securely stored for future reference. Before each batch of sample readings, the instrument is checked for precision, using four standard reference materials for Zn, Cu and Pb (Geostats standards GBM916-11, GBM317-12, GBM919-12 and GBM920-7). The Competent Person emphasises that portable pXRF readings are not a replacement for comprehensive laboratory analysis and only reflect elemental concentration at specific points, rather than the entire rock. While they assist in geological interpretation, verifying metal presence and selecting which samples should undergo full laboratory analysis, they offer only an approximate concentration
Verification of sampling and assaying	<ul style="list-style-type: none"> 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. 	<ul style="list-style-type: none"> All significant intercepts are calculated in house and checked by at least one geologist. No twinned holes or parallel trench samples were completed. The data received from the laboratories is uploaded into Excel spreadsheets where it is checked and uploaded into cloud storage. Once QA/QC procedures have been completed, the data is loaded into the MS Deposit™ database software. No adjustments to the data were made. Weighted averages were used to calculate significant intercepts. For duplicates, the first sample is recorded for intercepts.

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<i>Location of data points</i>	<ul style="list-style-type: none"> <i>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.</i> <i>Specification of the grid system used.</i> <i>Quality and adequacy of topographic control.</i> 	<ul style="list-style-type: none"> Alvo is using GPS to locate the drill holes. Alvo is using GPS to locate the start and end points of the trenches and tape and compass for the sample locations. All location data has been recorded in SIRGAS 2000 UTM zone 22S. Topographic control is adequate for the exploration at Palma.
<i>Data spacing and distribution</i>	<ul style="list-style-type: none"> <i>Data spacing for reporting of Exploration Results.</i> <i>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.</i> <i>Whether sample compositing has been applied.</i> 	<ul style="list-style-type: none"> Diamond drilling locations are variable with collar locations targeted to minimize vegetation disturbance whilst still achieving the geological targeting. Drill spacing to date is considered insufficient to estimate a Mineral Resource under the JORC 2012 guidelines. Trenches were located perpendicular to the main mineral trend, separated by ~250m. Trenches are not close enough for establish geological and grade continuity for use in a MRE. Auger drilling locations are variable with collar locations. No compositing applied.
<i>Orientation of data in relation to geological structure</i>	<ul style="list-style-type: none"> <i>Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type.</i> <i>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.</i> 	<p>Diamond Drilling</p> <ul style="list-style-type: none"> Where possible, drilling is oriented to intercept anomalies as perpendicular as possible. No bias is believed to have occurred. Sampling lengths will be generally 1-2m downhole, unless there was a specific geological control required by the geologist. Mineralisation orientation is unknown and therefore true widths are also unknown. Reported widths are downhole widths. <p>Trenching</p> <ul style="list-style-type: none"> No bias in the sampling, a consistent size of sample was collected from even sized channels on the north wall of the trenches.
<i>Sample security</i>	<ul style="list-style-type: none"> <i>The measures taken to ensure sample security.</i> 	<ul style="list-style-type: none"> Samples are collected daily and transported by company staff to a locked core shed.
<i>Audits or reviews</i>	<ul style="list-style-type: none"> <i>The results of any audits or reviews of sampling techniques and data.</i> 	<ul style="list-style-type: none"> No audits of the techniques or data has been undertaken at this stage.

Section 2 Reporting of Exploration Results (Criteria listed in the preceding section also apply to this section).

Criteria	JORC Code explanation	Commentary
<i>Mineral tenement and land tenure status</i>	<ul style="list-style-type: none"> <i>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.</i> <i>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.</i> 	<ul style="list-style-type: none"> Touro is located on Granted Exploration Permit, 100% owned by Perth Minerals Ltd a subsidiary of Alvo Minerals Ltd. Touro prospect is located on exploration tenements 861.021/2022 and 860.386/2022. The areas are subject to the Government and Land-Owner Royalties which are variable by substance. Alvo is confident the tenements are in good standing and no known impediments exist for further exploration or eventual mining, apart from normal statutory reporting, local access agreements and state and federal approvals.

Criteria	JORC Code explanation	Commentary
<i>Exploration done by other parties</i>	<ul style="list-style-type: none"> <i>Acknowledgment and appraisal of exploration by other parties.</i> 	<ul style="list-style-type: none"> Regional exploration was mainly completed by the CPRM (Brazilian Government geological Survey) and included regional geological mapping, wide spaced soils and stream sediment sampling. Airborne geophysics. There have been several combined aeromagnetic and radiometric surveys which cover the area, generally flown by Brazilian Government Agencies. These are generally broad spaced and useful for regional context. In 2008, private groups Lara Minerals and Voltorantim SA flew an heli-borne VTEM survey across the wider Palma area which highlighted multiple conductors. These may be related to massive sulphide accumulations, however most of these potential conductors were not followed up.
<i>Geology</i>	<ul style="list-style-type: none"> <i>Deposit type, geological setting and style of mineralisation.</i> 	<ul style="list-style-type: none"> Touro lies within the Palma polymetallic project, located principally in the Palmeiropolis volcano-sedimentary sequences (PVSS), composed of a series of bimodal volcanic rocks and associated sedimentary units, regionally metamorphosed to amphibolite facies. The mineralisation is of a Volcanogenic Massive Sulphide (VMS) type, occurring at or near the contact between a metamorphic volcanic unit and meta-sedimentary schist and comprises pyrite, pyrrhotite, sphalerite, chalcopyrite, galena, occurring as disseminated, brecciated, semi-massive and massive form.
<i>Drill hole Information</i>	<ul style="list-style-type: none"> <i>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:</i> <ul style="list-style-type: none"> <i>easting and northing of the drill hole collar</i> <i>elevation or RL (Reduced Level – elevation above sea level in metres) of the drill hole collar</i> <i>dip and azimuth of the hole</i> <i>down hole length and interception depth</i> <i>hole length.</i> <i>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 these.</i> 	<ul style="list-style-type: none"> Relevant information is reported in Tables 2, 3 & 4.
<i>Data aggregation methods</i>	<ul style="list-style-type: none"> <i>In reporting Exploration Results, weighting averaging techniques, maximum and/or minimum grade truncations (eg cutting of high grades) and cut-off grades are usually Material and should be stated.</i> <i>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.</i> <i>The assumptions used for any reporting of metal equivalent values should be clearly stated.</i> 	<ul style="list-style-type: none"> The significant intercepts were calculated using minimum sample length of 0.5m, with up to 2m of consecutive dilution, samples included with values > 0.2%Cu or >0.5% Zn or >0.1g/t Au. No upper cuts were considered. Weighted averages were calculated for all intercepts. Copper and Zinc equivalent grades are reported. Parameters for this calculation are; CuEq and ZnEq: Copper and Zinc Equivalent Calculation The metal equivalent grades are based on copper, zinc, silver, lead and gold prices of US\$8,914/t Copper, US\$3,017/t Zinc, US\$2,173/t Lead, US\$23.3/oz Silver, and US\$1,891/oz Gold. Recoveries of 95%, 86%, 77%, 74% and 70% respectively, (prices and recoveries based on ASX Announcement released 19 July 2024). 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.

Criteria	JORC Code explanation	Commentary
<i>Relationship between mineralisation widths and intercept lengths</i>	<ul style="list-style-type: none"> 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'). 	<ul style="list-style-type: none"> The mineralised domain dips moderately to steeply towards east-southeast with the drill holes planned to cut the mineralised domain in a perpendicular manner. The downhole depths are reported, true width is not accurately known at this stage, downhole widths are reported- true width unknown.
<i>Diagrams</i>	<ul style="list-style-type: none"> 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. 	<ul style="list-style-type: none"> See diagrams reported in the announcement.
<i>Balanced reporting</i>	<ul style="list-style-type: none"> Where comprehensive reporting of all Exploration Results is not practicable, representative reporting of both low and high grades and/or widths should be practised to avoid misleading reporting of Exploration Results. 	<ul style="list-style-type: none"> All results are reported above the cut-offs described above. Not all of the holes are sampled. Maps are prepared showing the high and low zones of anomalous, highlighting the anomalies as they relate to the geological setting.
<i>Other substantive exploration data</i>	<ul style="list-style-type: none"> 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. 	<ul style="list-style-type: none"> Extensive exploration data and information has been completed at the Palma Project and previously reported. A summary is provided below; Airborne geophysics. There have been several combined aeromagnetic and radiometric surveys which cover the area, generally flown by Brazilian Government Agencies. These are generally broad spaced and useful for regional context. In 2008, private groups Lara Minerals and Votorantim SA flew an heli-borne VTEM survey across the area which highlighted multiple conductors. These may be related to massive sulphide accumulations, however most of these potential conductors were not followed up. Drilling: Drilling by the CPRM was completed in the '70's and '80's and is included in this summary for the C1 and C3 prospects. CPRM also drilled other targets at C2, C4 and C5 where they discovered mineralisation. CPRM also drilled several targets that did not intersect economic mineralisation. JICA drilled 7 holes in the 1980's mainly around the C4 target. Lara/Votorantim drilled 11 holes into targets they defined from the VTEM survey. Metallurgical testwork: The CPRM completed several phases of metallurgical testwork including bench and pilot plant scale. This testwork is summarised in the Prospectus issued by Alvo Minerals Ltd in 2021. No testwork was completed on C4 mineralisation to date. Alvo estimated a JORC compliant MRE for the C1, C3 and C4 deposits (July 2024). Ground geophysics has been completed by Alvo across these prospects. Surveys have included fixed loop electromagnetic surveys (FLEM), Downhole electromagnetic surveys (DHEM) and Induced Polarisation Surveys (IP).

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<i>Further work</i>	<ul style="list-style-type: none"> <i>The nature and scale of planned further work (eg tests for lateral extensions or depth extensions or large-scale step-out drilling).</i> <i>Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive.</i> 	<ul style="list-style-type: none"> Alvo plans to continue testing Touro with additional drilling as well as new and existing Prospects with diamond drilling. Alvo will continue exploring other prospects in order to upgrade them to drill ready prospects. There are multiple prospects that have high geological probability of hosting mineralised sulphides. Alvo has in-house electromagnetic and Induced polarisation survey equipment and is performing FLEM, DHEM and IP surveys. It is expected these surveys will enhance the drilling program by delineating possible extensions of the highly conductive mineralisation and indicating additional targets for drilling. Alvo has a truck mounted mechanical Auger drill rig allowing fast and effective Geochem sampling across the companies tenure. Alvo routinely completes geochemical soil sampling across the tenure, geologically maps and occasionally trenches prospects to better understand the under-surface geology and geochemistry.