



## DECEMBER 2024 QUARTERLY REPORT

*Red Mountain lithium discovery in Nevada continues to grow with new zones intersected including highest grades to date and initial metallurgical testwork returning excellent results – paving the way for a maiden Resource in 2025.*

### Highlights

#### Lithium Projects, Nevada, USA

##### Red Mountain Project

#### Diamond Drilling

- New zones of lithium mineralisation intersected in the first diamond drill-hole:
  - 25.9m @ 1,530ppm Li from 76.2m, including 13.1m of high-grade mineralisation @ 1,820ppm Li from 76.2m
  - 7.3m @ 1,350ppm Li from 50.3m
- Both intersections are higher-grade than previously reported drill intercepts with the project continuing to offer outstanding untapped exploration potential.

#### Metallurgical test-work

- Initial leachability and mineralogy test-work completed for six RC samples from previous drill-holes.
- High lithium leachability results returned, including:
  - 94–98% lithium leached in acid concentration tests
  - 82–97% lithium leached in heated tests at 60°C
  - 94–98% lithium leached in leach time tests within 24hrs and 70–97% leached within 4hrs
- Test-work demonstrates that lithium is readily leachable from the Red Mountain host rocks.

##### Georgina Basin, NT

- Second diamond drill-hole completed at Leichhardt East, to a total depth of 500m.
- Basement siltstone, breccia and ironstones intersected, consistent with previous drilling. Traces of sulphides observed, including the copper mineral chalcopyrite.
- Further work required to explain the source of the modelled gravity anomaly.
- Next steps are to complete logging, sampling and assays, undertake bulk density test-work and refine the geophysical model for Leichhardt East.

##### Corporate

- Acquisition of the 2% Royalty over the Georgina Basin Project previously held by Greenvale Energy Limited completed by way of the issue of 2,413,793 fully-paid shares.
- Sale of 100% of Astute's diamond interests completed for \$125,000 with the sale consistent with the Company's focus on its core assets.
- Investor Hub platform launched to facilitate shareholder and investor engagement.

## Lithium Projects

### Projects Overview

The US State of Nevada hosts several large claystone-hosted lithium deposits and is home to North America's only lithium mining operation, Albermarle's Silver Peak lithium brine operation. Other major deposits in the state include Ioneer's (ASX: INR) Rhyolite Ridge Project and Lithium America's Thacker Pass Project, one of the largest lithium deposits in North America (Figure 1).

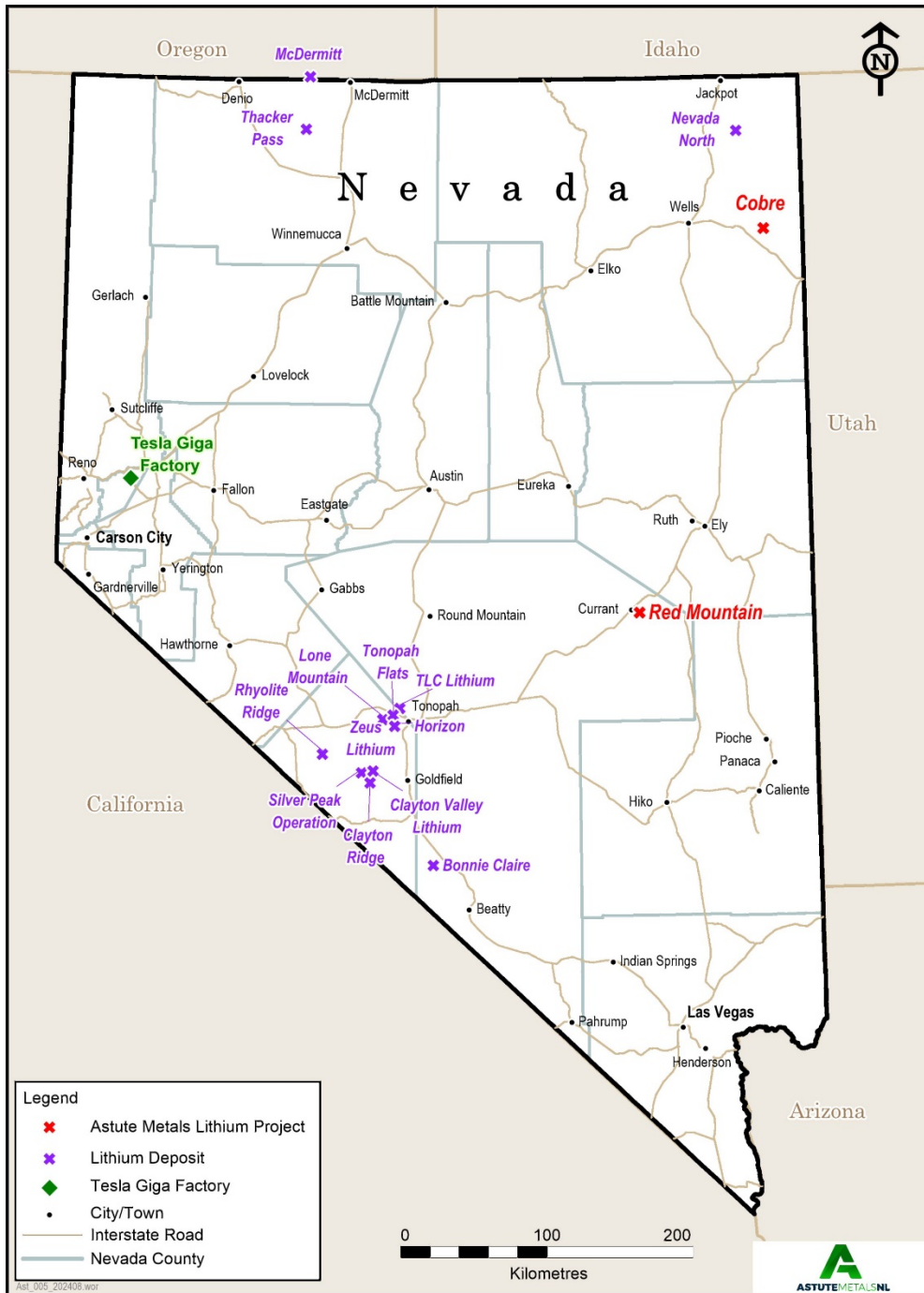


Figure 1. Location of Astute's Lithium Projects and other major Nevada lithium deposits

### Red Mountain Project

#### Background

Located in central-eastern Nevada (Figure 1), the Red Mountain Project was staked by Astute in August 2023. The Project area has broad mapped tertiary lacustrine (lake) sedimentary rocks known locally as the Horse Camp Formation. Elsewhere in the state of Nevada, equivalent rocks host large lithium deposits such as Lithium Americas' (NYSE: LAC) 62.1Mt LCE Thacker Pass Project, American Battery Technology Corporation's (OTCMKTS: ABML) 15.8Mt LCE Tonopah Flats deposit and American Lithium's (TSX.V: LI) 9.79Mt LCE TLC Lithium Project.

After staking was completed, Astute executed the following exploration work programs:

- An 819-point soil sampling campaign revealed strong lithium anomalism in soils, with grades of up to 1,110ppm lithium returned and a coherent 50ppm+ lithium anomaly delineated that stretched over an 8km strike length and up to 2.8km wide (Figure 3).
- Rock-chip sampling campaigns at Red Mountain revealed the presence of strongly mineralised claystone with grades of up to 4,150ppm lithium.
- A maiden drill campaign at Red Mountain comprised 11 Reverse Circulation drill-holes for 1,518m over a 4.6km strike length. This campaign was highly successful with strong lithium mineralisation intersected in every hole drilled (Figure 3).

As a relatively soft rock type, the claystones at Red Mountain are 'recessive', or lie beneath a typically thin veneer of alluvium. The recessive nature of the claystone means that more claystone may be present than is immediately apparent, with the harder rock types presenting as outcrop and the claystone being hidden.

Other attractive Project characteristics include outcropping claystone host-rocks and close proximity to infrastructure, including the Project being immediately adjacent to the Grand Army of the Republic Highway (Route 6), which links the regional cities of Ely with Tonopah.

### **Work completed during the quarter and results**

#### **Diamond Drilling**

During the quarter, the Company undertook its first-ever program of diamond drilling at the Red Mountain Lithium Project. The 2-hole diamond drilling campaign was designed to extend the mineralisation 375m further north of the current northernmost drill intersections and to test for a new horizon in the south of the project.

Details of the holes completed are as follows:

Hole ID	Easting (NAD83)	Northing (NAD83)	RL	Dip (°)	Azimuth (°)	Depth (m)
RMDD001	637549	4286147	1726	-50	270	243.84
RMDD002	637186	4290574	1709	-50	270	182.88

**Table 1.** Drill-hole collar details

The assay results from the first of the two holes have returned strong lithium mineralisation with the highest lithium grades seen to date at the Project, including the following drill intersections:

- 25.9m @ 1,530ppm Li / 0.82% Lithium Carbonate Equivalent<sub>1</sub> (LCE) from 76.2m, including a high-grade zone grading 13.1m @ 1,820ppm Li / 0.97% LCE from 76.2m; and
- 7.3m @ 1,350ppm Li / 0.72% LCE from 50.3m.

Both intersections in this hole are higher-grade than all other previously reported intersections at Red Mountain. Furthermore, drill-hole RMDD001 contains the highest single drill sample assay observed to date at the Project, grading 3,070ppm Li over 1.5m from 86.9-88.4m (285-290ft, Figure 2).

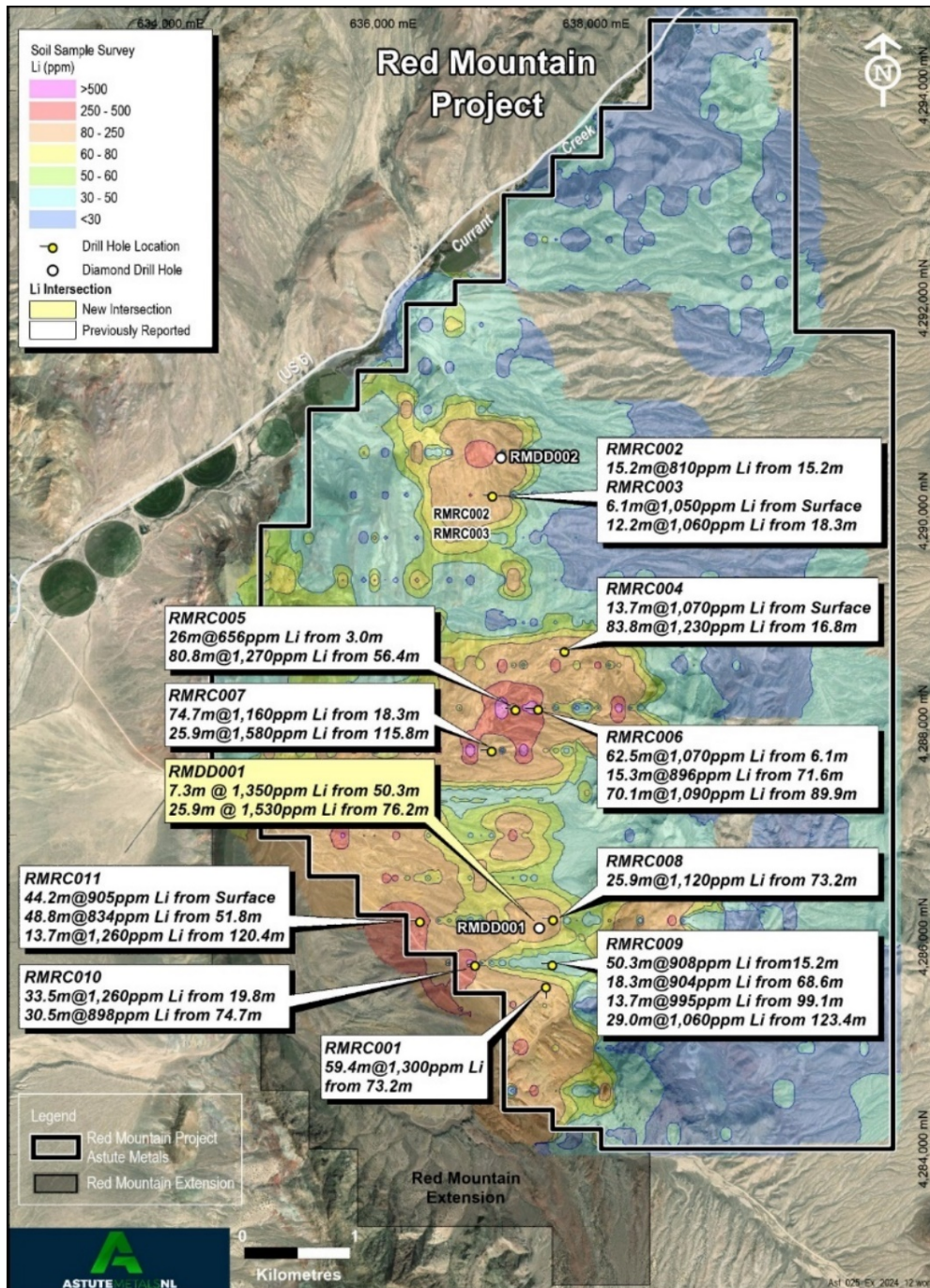
The identification of new lithium-bearing horizons (Figure 4) within the sedimentary package at Red Mountain highlights the outstanding untapped exploration potential at the project, with every hole assayed to date intersecting strong lithium mineralisation (Figure 3).

In addition, the identification of notably higher-grade lithium mineralisation in this hole indicates that high-grade zones remain to be tested and characterised.

A full table of assay results is provided in Appendix 2 in ASX release dated 9<sup>th</sup> December 2024.

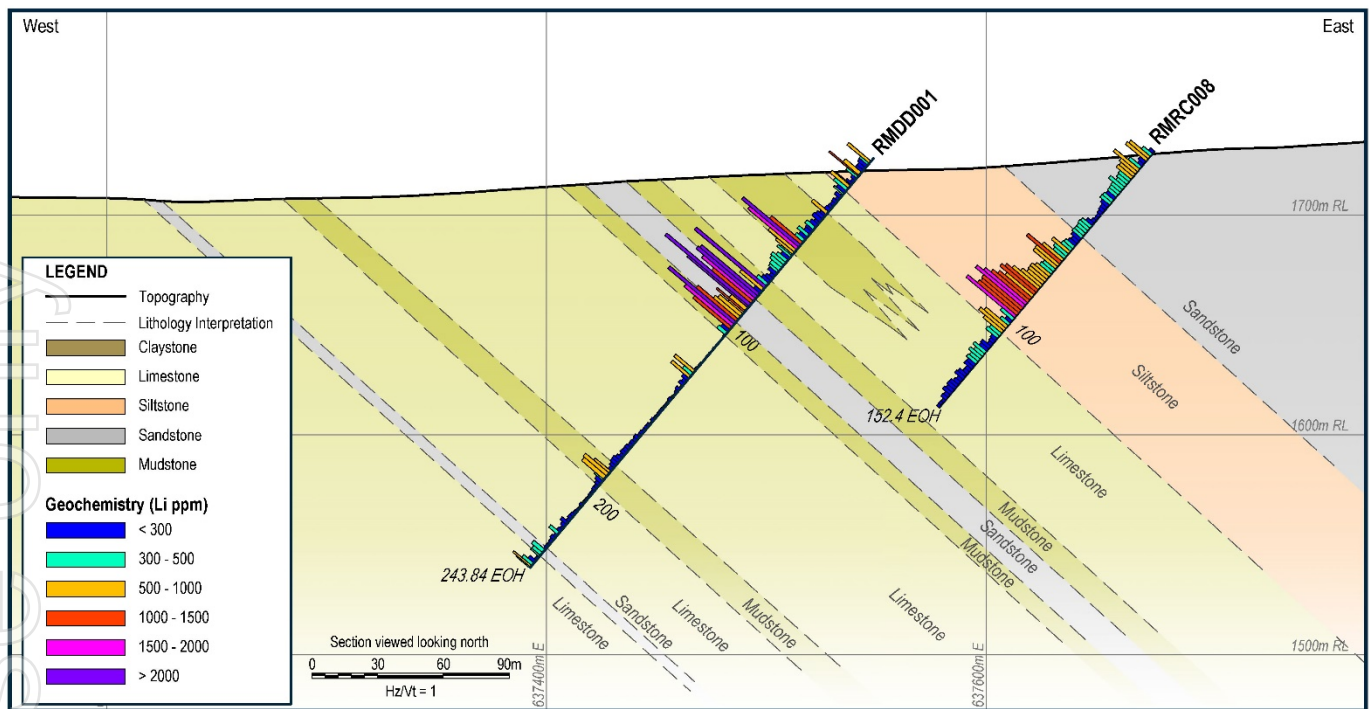


**Figure 2.** High-grade drill-core from 86.6-88.5m (285-290ft) in RMDD001 which assayed 3,070ppm Li



**Figure 3.** Drill-hole locations and intersections, and gridded soil sample geochemistry over aerial image

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**Figure 4.** RMDD001-RMRC008 interpretative east-west cross section and downhole lithium geochemistry (section at nominal mid-point between RMDD001 and RMRC008, which are 65m apart by northing)

### About Lithium Carbonate Equivalent (LCE)

Unlike spodumene concentrate, which is a feedstock, Lithium Carbonate is a downstream product that may be used directly in battery production or converted to other battery products such as lithium hydroxide. The Benchmark Mineral Intelligence Lithium Carbonate China Index priced lithium carbonate product at approximately US\$10,000/t at the end of the quarter.

Lithium carbonate is the product of many of the most advanced lithium clay projects around the world, including Lithium Americas' (NYSE: LAC) 62.1Mt LCE Thacker Pass Project, which is currently under construction. Accordingly, exploration results for Red Mountain have been reported as both the standard parts-per-million (ppm) and as % Lithium Carbonate Equivalent (LCE).

### Initial Metallurgical Test-work

During the quarter, the Company received results from initial metallurgical test-work completed at the Red Mountain Project. The early-stage test-work was primarily designed to test lithium leachability, how leachability changes with temperature, acid concentration and time, and to evaluate bulk sample mineralogy.

The test-work program, which was conducted on samples from the Company's maiden RC drilling campaign, was highly successful, indicating lithium leachability of up to 98% - results that are comparable to or better than announced leachability results for other projects.

Sample ID	Sample Type	Hole ID	Interval (ft)	Lithology
100756 A	RC Chips	RMRC001	255 - 260	Silty Claystone
100757 A	RC Chips	RMRC001	295 - 300	Silty Claystone
100758 A	RC Chips	RMRC002	5 - 10	Claystone
100759 A	RC Chips	RMRC003	70 - 75	Limestone
100760 A	RC Chips	RMRC005	255 - 260	Siltstone
100761 A	RC Chips	RMRC005	330 - 335	Clayey Siltstone

**Table 2.** Metallurgical sample details

Processing of lithium clays comprise three generalised stages: leaching of lithium from the clays into a pregnant leach solution (PLS); removal of impurities from the PLS; and crystallization of a final lithium product.

These initial results are an important step in demonstrating the ability for lithium to be liberated from the clays at Red Mountain. The results will guide future metallurgical work which will aim to optimise leach conditions, test the ability to beneficiate or 'upgrade' mineralised material, and ultimately produce a final lithium product such as lithium carbonate.



**Figure 5.** Red Mountain metallurgical samples at Kappes Cassidy & Associates lab in Reno, Nevada

### Test-work Overview

In September 2024, the Company despatched six samples from its June 2024 RC drilling campaign to metallurgy group Kappes, Cassidy & Associates (KCA) for scoping-level lithium leach test-work (Figure 5). KCA, which is based in Reno, approximately 500km west of the Red Mountain Project, is highly regarded for its leach test-work expertise in lithium, copper and gold.

The test-work included head sample analyses, acid concentration leaching, leach time testing, leach temperature testing and associated tails and solution assays. In addition, a sub sample of each of the six RC samples submitted was sent to FLSmidth for bulk mineral identification using Quantitative X-Ray Diffraction (QXRD) and Cation Exchange Capacity (CEC) methods.

The purpose of the test-work was to confirm that lithium can be leached from mineralised rock types at Red Mountain, to establish scoping-level rates of leachability and acid consumption, and to guide future metallurgical work. Results tables for metallurgical testwork, including head assays, solution and tails assays, for each test is shown in Appendix 2 of the ASX release dated 9<sup>th</sup> December 2024.

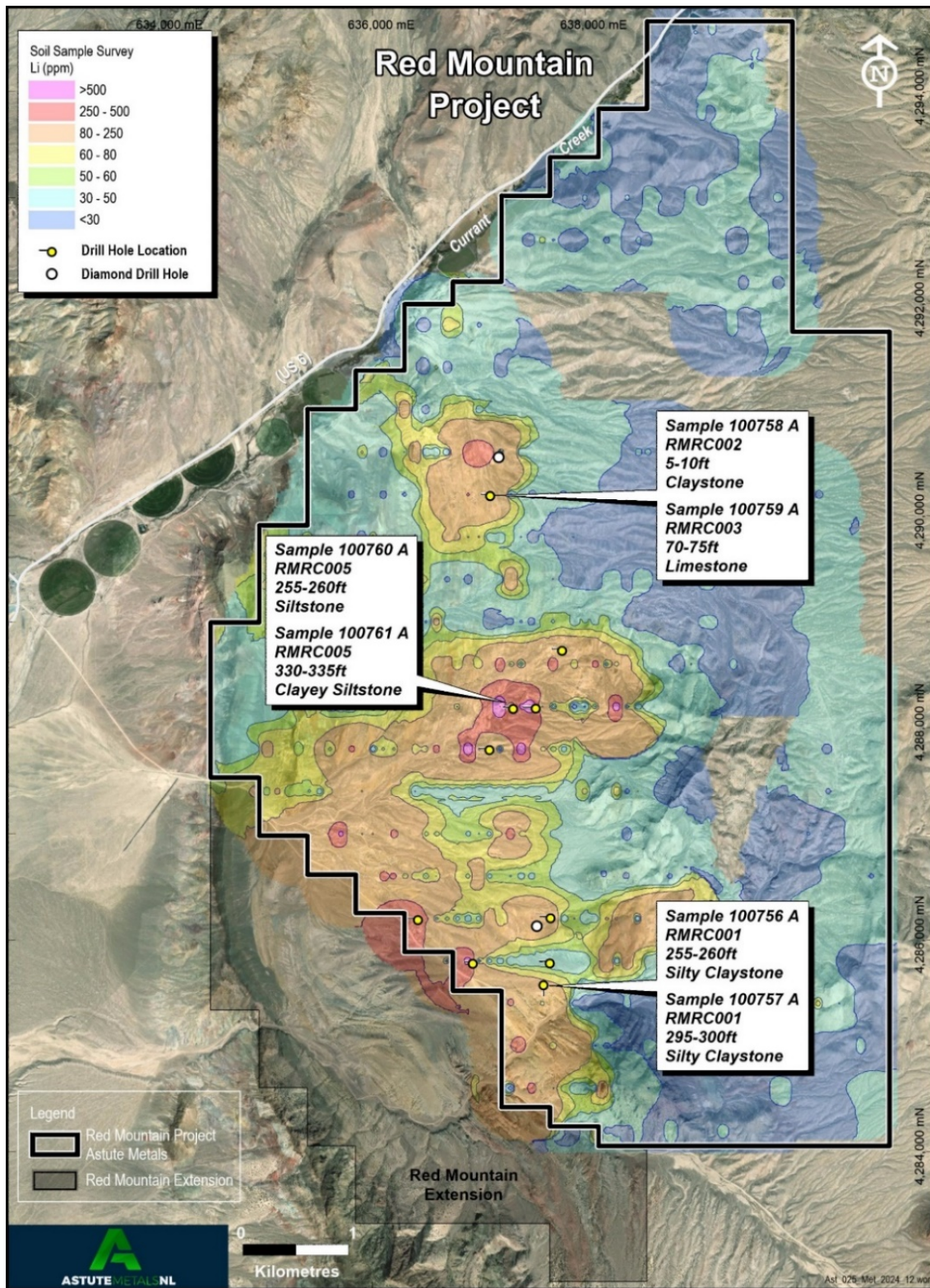
Drill Hole ID	Easting (NAD83)	Northing (NAD83)	RL (m)	Dip (°)	Azimuth (°)	Depth Drilled (m)
RMRC001	637610	4285589	1708	-50	180	182.9
RMRC002	637105	4290201	1694	-50	270	128.0
RMRC003	637105	4290201	1694	-90	-	36.6
RMRC005	637321	4288194	1687	-50	270	137.2

**Table 3.** Drill-hole collar details from which metallurgical samples were selected

### Metallurgical Sample Selection

For the scoping level test-work, six samples were selected from drill-holes located in the north, central and south parts of the Red Mountain Project (Tables 2, 3 and Figure 6).

Samples were selected to cover a range of lithium grades, depths, lithologies and other characteristics, in order to gain an understanding of the variability in high-level leachability characteristics across the Project. A summary of the metallurgical samples is provided below:



**Figure 6.** Metallurgical sample location plan

### Lithium leachability by acid concentration

Leachability by acid concentration tests were conducted using pulverized sample at a target pulp density of 10% solids by weight. Three tests were conducted with varying acid concentration (219 – 902kg/t) at an ambient 21°C temperature to determine the influence on overall lithium extraction and acid consumption. Results are plotted in Figure 7.

The acid concentration tests showed high lithium extractions of 94–98% in a 24-hour leach with nominal 900kg/t acid addition, with acid consumptions ranging from 406 – 529kg/t.

Lithium leachability was lower with lower acid additions of 220 and 450kg/t.

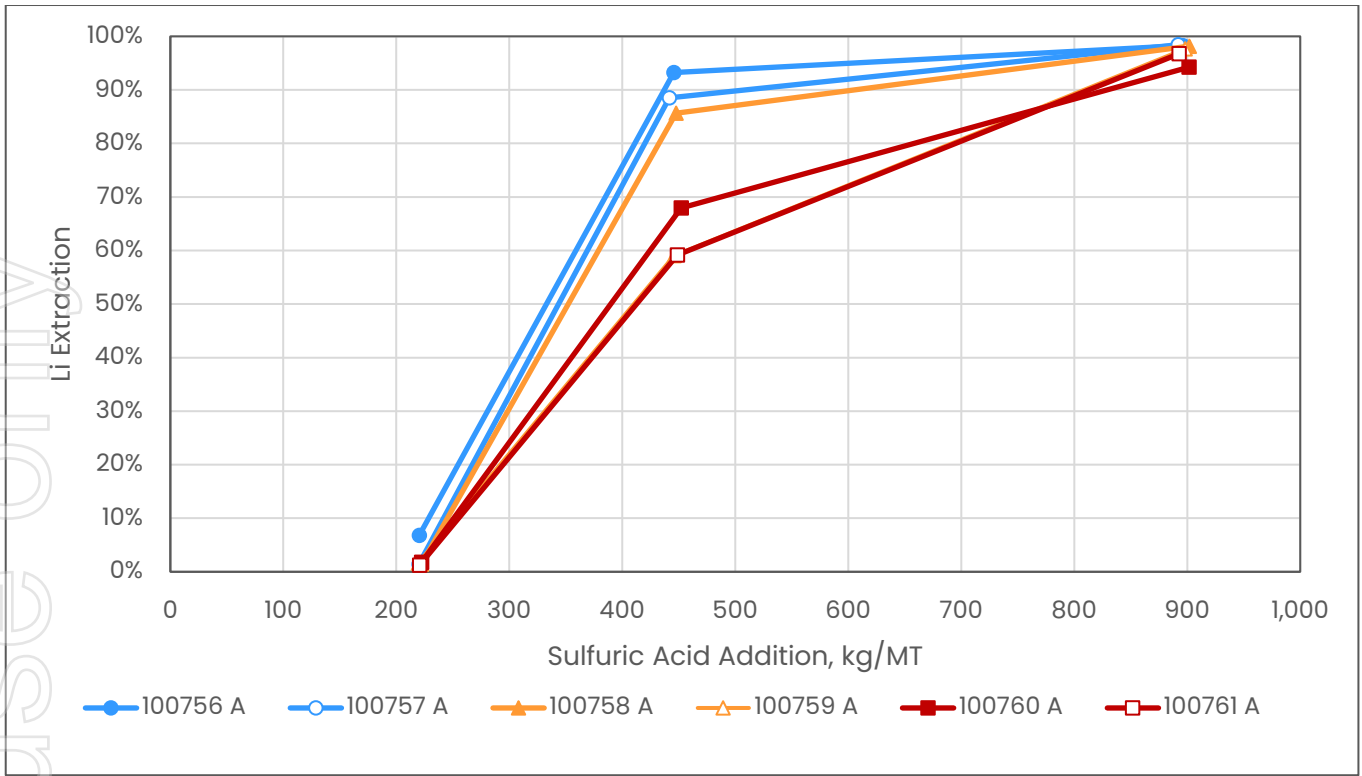


Figure 7. Lithium leachability by acid concentration

### Lithium leachability by time

Leachability by time tests were conducted using pulverized sample at a target pulp density of 10% solids by weight. Four tests were conducted (887 - 902kg/t sulfuric acid addition at an ambient 21°C temperature) with leaching timeframes of 1, 2, 4 and 24 hours to determine the influence of time on lithium extraction. Results are plotted in Figure 8.

Leach time tests demonstrated high lithium extractions of 91-97% in a 4-hour leach for four of the six samples, with the remaining two showing extractions of 70% and 72% for this timeframe. Acid consumptions ranged 375-475kg/t in the 4-hour tests. At a 24-hour leach, extractions were all high at between 94% and 98%, with acid consumptions of 406-529kg/t.

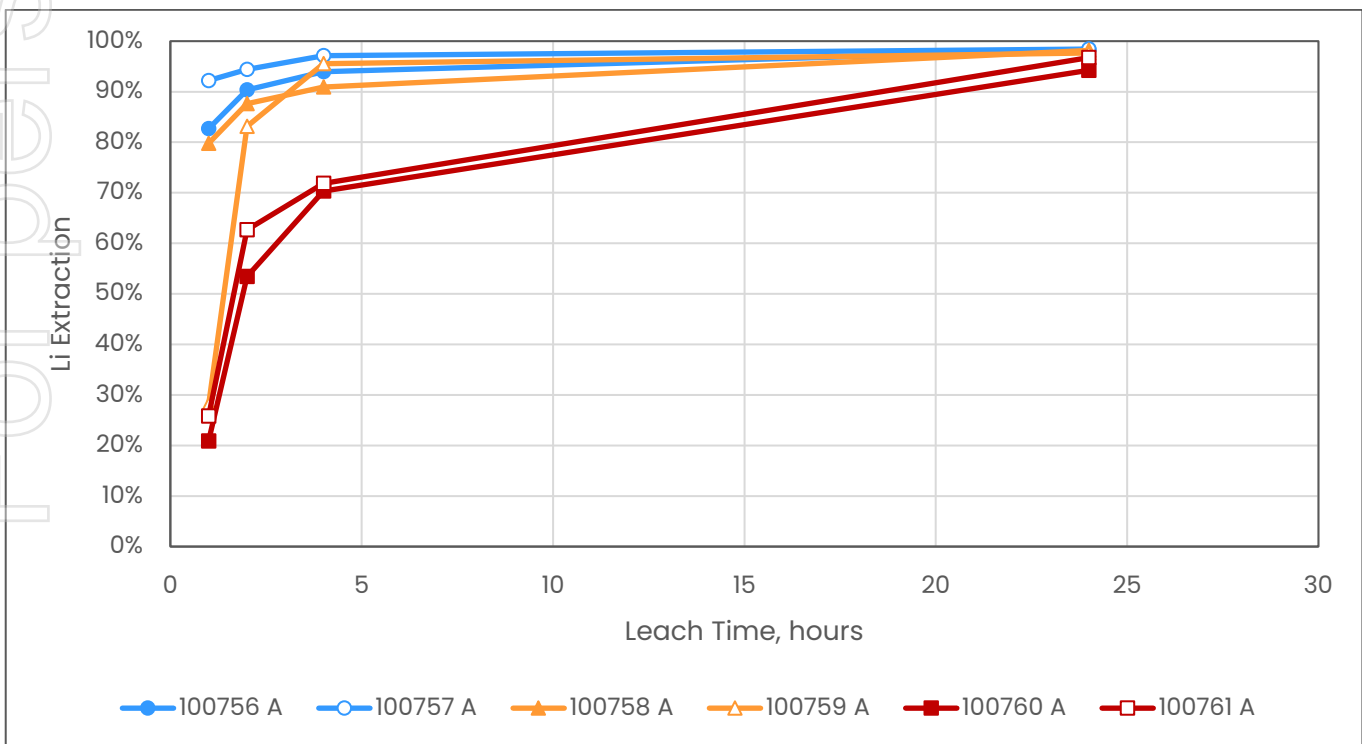


Figure 8. Lithium leachability by time

### Lithium leachability by temperature

Leachability by temperature tests were conducted using pulverized sample at a target pulp density of 10% solids by weight. Two tests were conducted (887-912 kg/t sulfuric acid addition) at 21°C and 60°C temperatures to determine the influence of temperature on lithium extraction.

The tests demonstrated that leach kinetics improved with heat, with 21-92% lithium leachability at ambient temperature, increasing substantially to 82-97% at a temperature of 60°C (Figure 9).

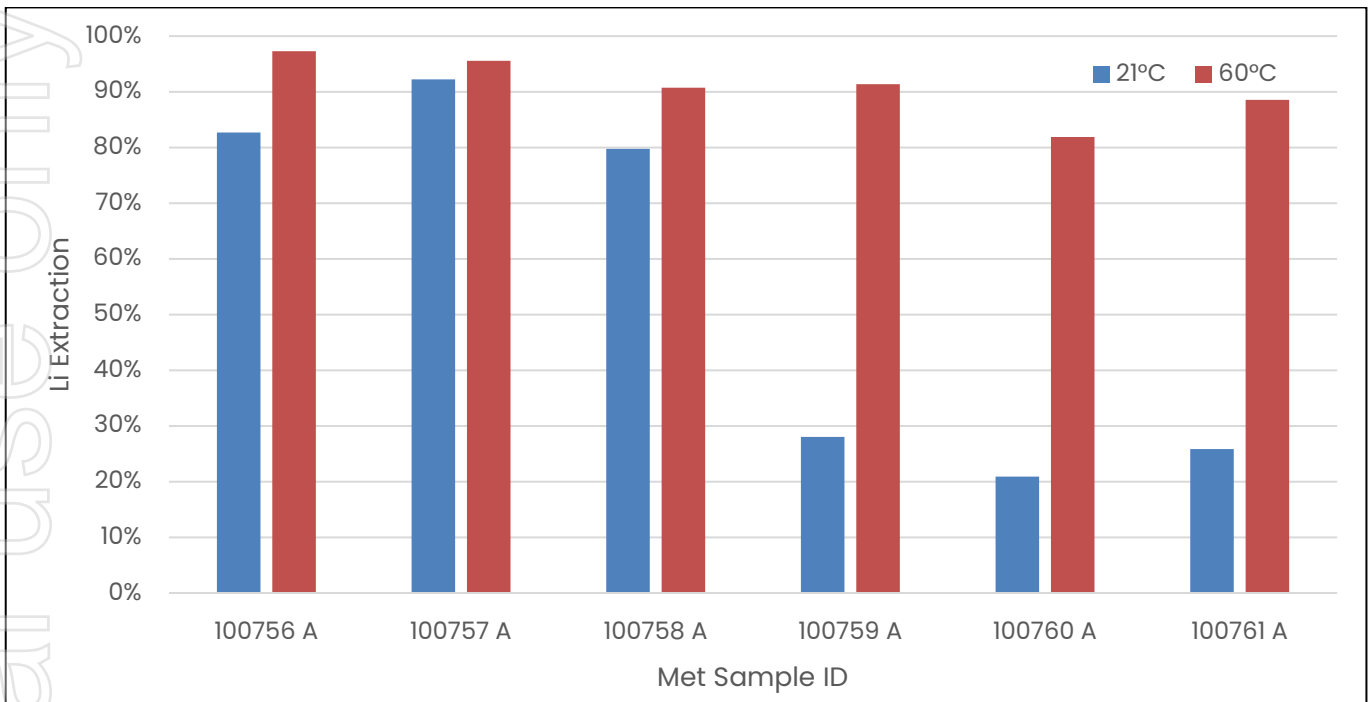


Figure 9. Lithium leachability by temperature

### Mineralogy

The clay content of the samples ranged from 16.8 – 35.9% based on cation exchange capacity (CEC) analysis, demonstrating a positive relationship with lithium grades (Figure 10). Other major minerals making up the samples include K-feldspar (16.8 – 34%), calcite (17.4 – 29.4%) and plagioclase (5 – 7.7%). Trace amounts of anhydrite in some samples is interpreted to indicate the evaporative nature of the closed basin in which the sedimentary package was deposited. A full table of QXRD and CEC results is shown in Appendix 3 in the ASX release dated 9<sup>th</sup> December 2024.

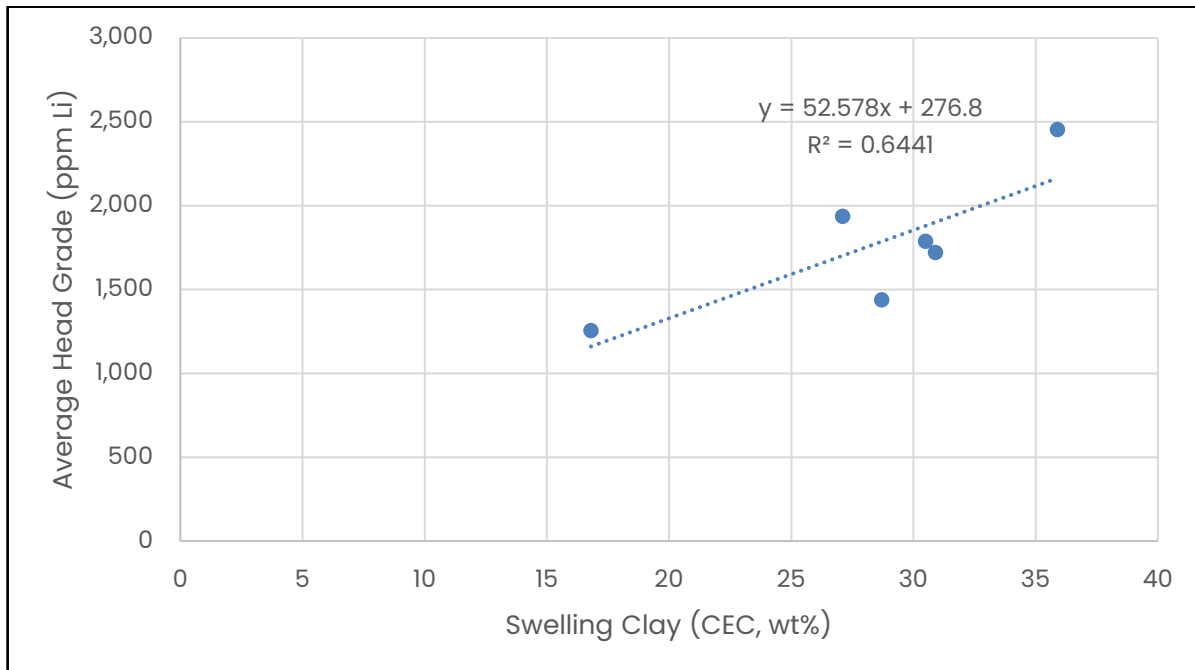


Figure 10. Clay content and average head grades for metallurgical samples

## Interpretation

The results of this scoping-level testwork are highly encouraging for the Red Mountain Project, particularly at this early stage. The main conclusions drawn from the testwork are:

- Sulfuric-acid leaching shows that lithium is readily leachable from the clay-bearing host rocks at Red Mountain.
- High recoveries of up to 98% of lithium are achievable using appropriate conditions.
- The overall recovery of lithium is a function of temperature, acid strength and time conditions.
- Lithium grade in samples increases with clay content, indicating that focusing future exploration work on project areas with higher clay content may result in intersection of higher lithium grades.

The Red Mountain results compare favourably with other lithium clay project leachability results, such as those for Surge Battery Metals' (TSX: NILL) Nevada North project, which had lower lithium leachability extraction (%) in acid concentration tests.

## Next Steps

Future metallurgical work for Red Mountain will include assessment for beneficiation potential, optimisation of leach conditions in terms of acid concentration, time and temperature, and assessment of leaching with other acids (e.g. hydrochloric acid). Beneficiation testwork is of particular interest, as this would aim to separate and remove acid-consuming minerals, such as calcite, from the lithium-bearing clay minerals. If successful, beneficiation may result in reduced acid consumption, reduced mass, and increased lithium grade.

The Company is currently awaiting assay results for diamond drill-hole RMDD002, which was designed to extend the main zone of lithium mineralisation north of the intersections in RMRC002 and RMRC003. The results from this hole are expected in Quarter 1, 2025. Digitisation of geological mapping work conducted at the Project will be finalised and integrated with surface sampling data to assist in refining the Company's drilling plans. The Company intends to then proceed with planning and permitting the next round of drilling at the Project, to be conducted at the earliest opportunity in the 2025 field season.

## Cobre Project

### Background

The Cobre Project was also staked by the Company in mid-2023 following positive results from reconnaissance exploration sampling undertaken over a selection of areas identified as part of the same desktop project generation exercise that identified Red Mountain. The project is located in north-east of Nevada.

### Work completed during the quarter

No work was completed during the quarter for the Cobre Project.

## Georgina Basin, Northern Territory IOCG Project

### Project Overview

Located in the highly prospective East Tennant Province in the Northern Territory, the Georgina Project comprises seven granted Exploration Licences and three under application, for a combined total of approximately 3,900km<sup>2</sup>. Astute Metals is the 100% owner of the Georgina Project.

The East Tennant Province has been the subject of intense geoscientific investigation by both Geoscience Australia and the Northern Territory Geological Survey for over five years. Pre-competitive work undertaken as part of the Federal Government's \$225 million Exploring for the Future program (EFTF) included solid geology interpretation, alteration proxy mapping and mineral prospectivity mapping for Iron Oxide Copper Gold (IOCG) deposits.

The collaborative MinEx CRC National Drilling Initiative, conducted in late 2020, confirmed the highly prospective nature of the region by intersecting prospective host rocks, IOCG-style alteration and sulphide mineralisation as part of a 10-hole program at East Tennant.

IOCG deposits are typically large, economically attractive copper-gold deposits with some smaller high-grade variants – most notably those at Tennant Creek. This style of deposit contains elevated levels (10–60wt %) of the iron oxide minerals magnetite and hematite, which gives rise to their (typically) elevated magnetic and gravity (density) properties.

Australian IOCG's include the Olympic Dam, Prominent Hill and Carrapateena deposits in South Australia; Ernest Henry in north-west Queensland; and the high-grade Warrego and Juno deposits, located west of the Georgina Project at Tennant Creek in the Northern Territory.

In 2023, Astute was awarded a co-funding grant by the NT Government to conduct the ANT survey, under Round 16 of the Geophysics and Drilling Collaborations program. The grant, valued at \$100k, is one of two awarded to the Company this year.

The award of this grant is testament to the sound technical rationale employed by the Astute technical team in the survey design. The Company would like to acknowledge the Northern Territory Geological Survey for their continued support and their commitment to establishing the Northern Territory as a Tier-1 exploration jurisdiction.

### **Diamond drilling at the Leichhardt East Prospect**

During the quarter, the Company completed a second deep diamond drill-hole at the Leichhardt East Prospect (Table 4).

Drill-hole LE002 was completed to a depth of 500m, targeting an inverted gravity model that was constrained by Ambient Noise Tomography (ANT) data collected in the second half of 2023. The drill-hole intersected breccia, siltstone and ironstones (Figures 11-13). Intersected basement rocks were sheared and fractured, with hematite development within shears, on fracture surfaces and as breccia in-fill. Trace to minor sulphides were present, including the copper mineral chalcopyrite (Figure 14).

Preliminary interpretation of the results suggests that the dense body of rocks that was targeted has not been intersected with this drill-hole, despite the hole having passed through the modelled gravity anomaly. Faulting and shearing of rocks observed in the hole indicates the potential for structural complexity and, given that the rocks intersected by this hole do not explain the gravity anomaly, the potential of the Leichhardt East prospect for dense, IOCG-prospective rocks remains – which can only be confirmed by further exploration drilling.

The drilling conducted to date at Leichhardt East has identified host-rocks equivalent to the Warramunga Formation, which hosts IOCG deposits at Tennant Creek, with prospective hematite and chlorite alteration, ironstones, sulphide mineralisation and geochemical anomalism for copper and uranium, in the vicinity of an as-yet unexplained gravity anomaly indicative of the presence of dense rocks. The Company considers that Leichhardt East remains a highly prospective target that possesses numerous IOCG characteristics, and further work is warranted. Detailed logging, assaying and bulk density analysis will be completed over the coming months with a view to reviewing the geophysical model for the prospect ahead of future drilling.



**Figure 11.** Ironstone intersected from 353.1-335.3m in LE002

### **Drilling Results**

Drill-hole LE002 drilled through the Georgina Basin limestone cover sequences to a depth of 228.9m, and Helen Springs basalt to 256.6m, where Proterozoic metasedimentary basement rocks were intersected. Basement rocks are consistent with Warramunga Formation-equivalent breccias, siltstones and ironstones, to the end of the hole at 500m (Figures 11 and 13).

The siltstones exhibit a uniform chlorite alteration and are frequently fractured and sheared, indicating a strong degree of tectonism, which is consistent with the first hole drilled at the prospect. Sheared and fractured rock surfaces are commonly coated with powdery-textured and/or specular hematite. Trace sulphide mineralisation was observed in several locations in the drill-hole, including the copper mineral chalcopyrite. Ironstones in both holes are typically associated with faulted contacts. A table of preliminary geological logging is provided in Appendix 2 in the ASX release dated 18<sup>th</sup> November 2024.

In summary, this second drill hole at Leichhardt East has intersected broadly the same package of rocks as in the first hole, however they are less altered and have fewer ironstones present than the first hole at Leichhardt East.

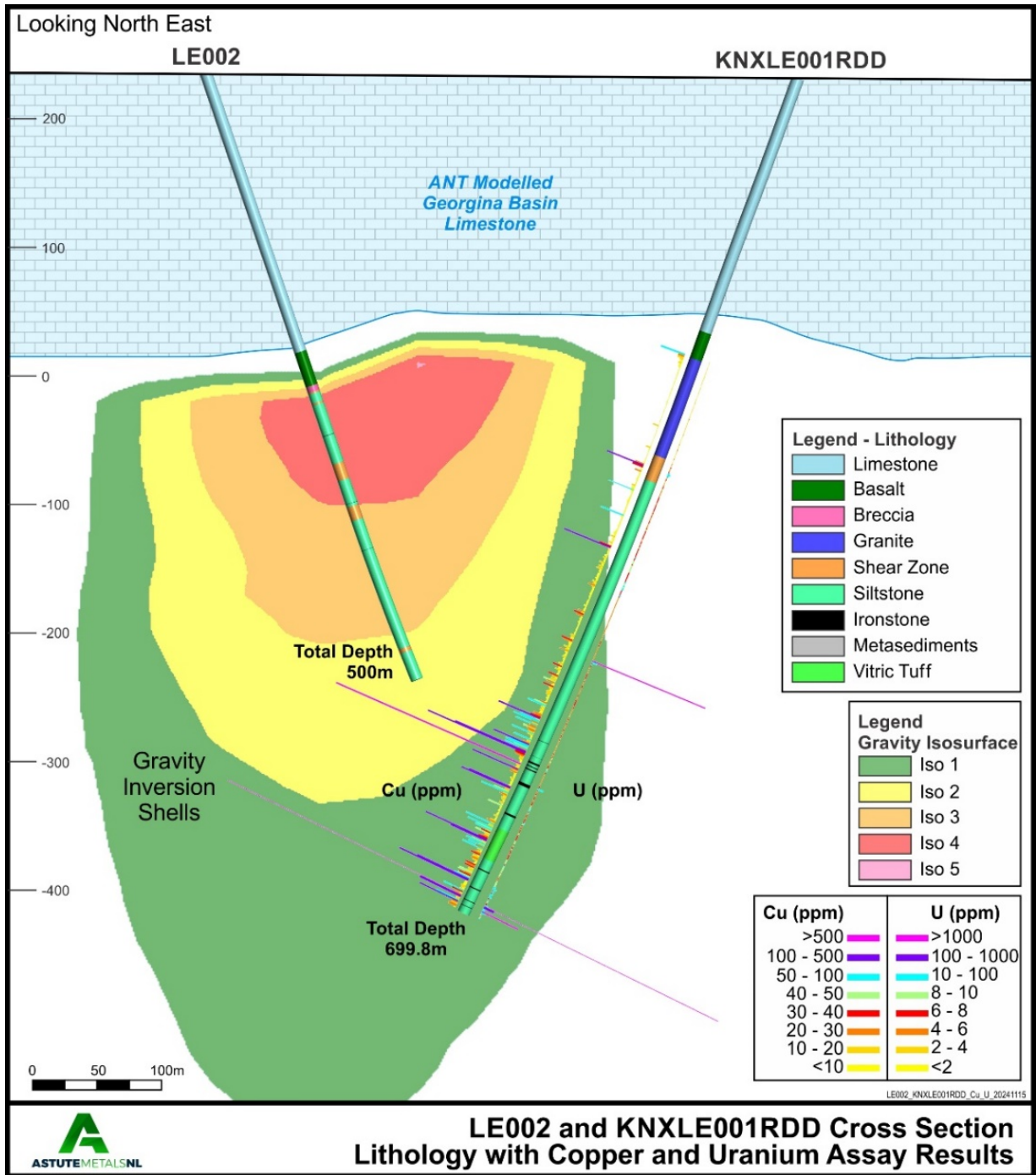


Figure 12. LE002 simplified lithology, constrained gravity isosurfaces and previous drill-hole with geochemistry



Figure 13. Ironstone intersected from 391.4-391.5m in LE002

## Interpretation

While the Company is yet to undertake assay work and bulk density measurements, the rocks intersected in LE002 do not appear to be sufficiently dense to explain the modelled gravity response, despite having drill tested a significant portion of the modelled gravity anomaly (Figure 12).

Taking into account the geochemical anomalism observed in the first hole, the fact that the only dense lithologies intersected to date have been ironstones, and the increased instance of shear zones and breccias observed in this hole, the Company has drawn the following early conclusions:

1. As the rocks intersected in this hole and the first hole are insufficiently dense to explain the modelled gravity anomaly, the Leichhardt East prospect remains prospective for an IOCG discovery, and that this will require further exploration drilling.
2. A strong degree of faulting and shearing has been observed in both holes drilled to date. The gravity anomaly may be explained from a contrast between un-mineralised country rocks and ironstone juxtaposed by faulting/shearing.
3. The only basement rock-type with a density approaching that of the modelled anomaly is the ironstones, some of which have been mineralised with respect to sulphide minerals, however there have only been relatively thin slivers of ironstone intersected in drilling to date, which is not sufficient to explain the anomaly.
4. Therefore, the most likely cause of the modelled anomaly is a greater concentration of ironstone in the vicinity that remains to be located.
5. Ironstones host IOCG-style mineralisation in outcropping rocks of the Warramunga Formation at Tennant Creek, located approximately 170km west of the Leichhardt East area. The host rocks at Leichhardt East are interpreted to be equivalent to the Warramunga Formation, and as such remain prospective for an IOCG discovery.

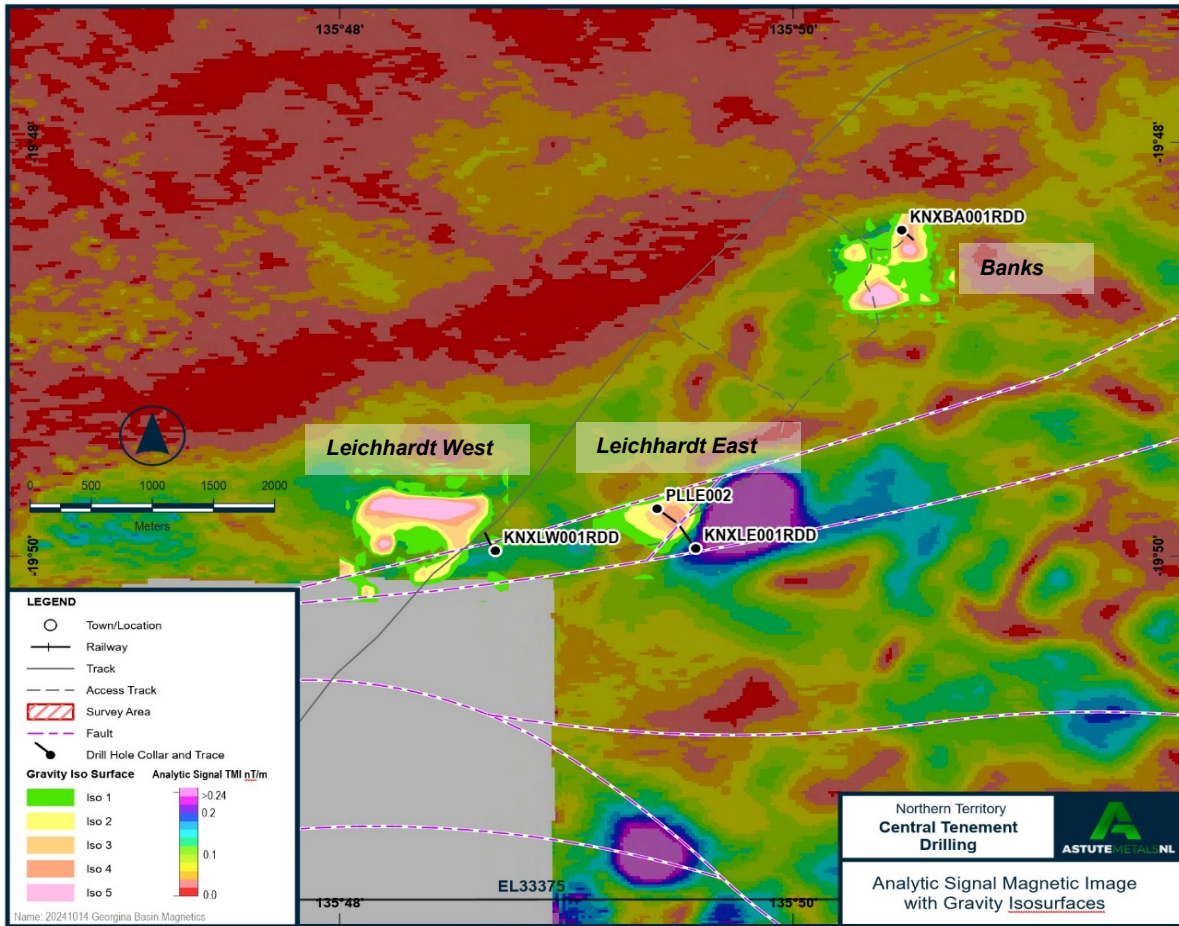
Given the above, the Company considers that Leichhardt East remains a highly prospective target that possesses numerous IOCG characteristics, and further work is warranted.



**Figure 14.** Trace chalcopyrite (copper mineral) on joint surface at 427.3m

### Cautionary Statement on Visual Estimates

Visual estimates of mineral abundance should never be considered a proxy or substitute for laboratory analyses where concentrations or grades are the factor of principal economic interest. Visual estimates also potentially provide no information regarding impurities or deleterious physical properties relevant to valuations.



**Figure 15.** Plan view of all three modelled prospects (Leichhardt East and West, Banks) drill holes and faults over Analytic Signal magnetic imagery at the Georgina IOCG Project

Plan ID	Easting (GDA94)	Northing (GDA94)	RL	Dip (°)	Azimuth (MGA, °)	Total Depth (m)
LE002	586226	7807178	235	-70	130	500

**Table 4.** Drill-hole details

### Next Steps

The Company will complete detailed geological logging of LE002 drill core and select samples for assay and for petrology in order to assess for pathfinder geochemistry and evidence of mineralising processes, respectively. This work is expected to be completed by the end of January 2025.

Bulk density measurements of basement and cover rocks will also be conducted to update its geophysical modelling ahead of planning of further drill-holes for the Prospect, and ahead of drilling of the Leichhardt West and Banks ANT-constrained gravity inversion targets, which have been modelled using the same methods (Figure 15).

## Governor Broome Mineral Sands Project, WA

### Project Overview

The 100%-owned Governor Broome Mineral Sands Project is located approximately 95km by sealed road south of Busselton, 105km south of Iluka's processing plant at Capel, and 135km from Bunbury Port and from Picton, where Doral has a heavy mineral separation plant (Figure 16). A 132kV power line is located just 5km to the north and a three-phase power line passes through the Governor Broome Project, giving it significant strategic advantages from an infrastructure and access perspective.

The Company has progressed its de-risking strategy for the Governor Broome Project in 2023, with the successful execution of in-fill drilling allowing for the upgrade of high-value Inferred Mineral Resources to Measured and Indicated status (Table 5), the acquisition of the high-grade Fouracres deposit, located along strike from Jack Track, and the completion of a bulk testwork program on samples from the most recent Jack Track drilling campaign.

The bulk testwork program was highly successful, demonstrating the amenability of the Jack Track Deposit to processing through the feed preparation circuit using conventional mineral sands processing equipment. The material was processed without difficulty with the sand fraction containing the valuable heavy minerals (Heavy Mineral Concentrate/HMC) readily liberated from the slimes without the need for energy intensive processing equipment.

Furthermore, subsequent dry testwork demonstrated that a range of ilmenite, leucoxene, rutile, and zircon products could be recovered from the heavy mineral concentrate. Monazite was also recovered to a paramagnetic concentrate stream. Product qualities are consistent with other heavy mineral products on the market. Below is a table summarising the resources associated with the Governor Broome Project:

Tenement	Category	Tonnage (Mt)	HM (%)	Slimes (%)
<b>R70/58 - Jack Track</b>	Measured	20.2	4.2	8.4
	Indicated	21	3.5	7.9
	<b>Total</b>	<b>41</b>	<b>3.9</b>	<b>8.2</b>
<b>R70/53 - Governor Broome</b>	Measured	8.0	5.0	13
	Indicated	44	5.0	13
	Inferred	7	3.5	12
	<b>Total</b>	<b>59</b>	<b>4.8</b>	<b>12.5</b>
<b>R70/22 - Fouracres</b>	Indicated	0.72	11.4	6.5
	Inferred	0.2	3.5	9
	<b>Total</b>	<b>0.93</b>	<b>9.6</b>	<b>7.1</b>
<b>Project</b>	Measured	28.4	4.4	9.7
	Indicated	66	4.5	12
	Inferred	7	3.5	12
	<b>Total Resources</b>	<b>101</b>	<b>4.5</b>	<b>11</b>

**Table 5.** Governor Broome Project Resources – at 2% HM lower block-cut-off grade

*Note that the above figures have been appropriately rounded.*

*The Fouracres Resources estimated at a 3% Heavy Mineral (HM) lower block-cut-off grade  
Governor Broome and Jack Track Resources estimated at a 2% HM lower block-cut-off grade*

## Scoping Study

In April 2024, the Company announced the results from the Scoping Study for the Governor Broome Project and the financial metrics from the Study were exceptionally positive, as tabulated below:

Metric	Unit	Value
Capital cost	A\$ million	91
Average annual revenue	A\$ million	125
Average annual operating cost	A\$ million	83
Pre-tax NPV (at 10% discount rate)	A\$ million	139
Pre-tax IRR	%	54
<i>Weighted average revenue to cash cost ratio (payback period)</i>		1.9
Capital Payback Period	Years	<2

**Table 6.** Scoping Study Material outputs

**The full release for the Scoping Study, including detailed assumptions, results and Cautionary Statements is available in the ASX Announcement dated 4 April 2024**



**Figure 16.** Governor Broome Project Location, WA

#### Work During the Quarter

No work was undertaken during the quarter on the Governor Broome Project. The Company is actively investigating its options for realising value from the Project.

#### Next steps with the Governor Broome Project

As announced in the ASX release dated 4 April 2024, the Company was considering a number of options, including:

- Sourcing of funding to advance the Project
- Investigating potential Joint Venture partners and how the arrangements can enhance value;
- A review of sale options and likely buyers for the asset; and
- Considering other avenues for realisation.

During the quarter, the Company considered and pursued a number of potential opportunities for the sale of the Governor Broome Project. Whilst the discussions are preliminary in nature, the Board remains encouraged by these negotiations.

Any sale of the Governor Broome Project, whether in part or whole, remains subject to regulatory and shareholder approvals. Further updates on this process will be provided as and when required.

#### Needles Gold Project, Nevada

No work was undertaken during the quarter on the Needles Gold Project.

#### East Kimberley Diamond Project

No work was undertaken during the quarter for the East Kimberley Diamonds Project immediately prior to sale.

## Corporate

### Acquisition of the 2% Royalty in Georgina Basin

During the September 2024 Quarter, the Company advised that it has exercised its right under a Call Option Deed dated 28 November 2022 (Deed) to acquire the 2% Net Smelter Return royalty on the Georgina Basin IOCG Project in the Northern Territory (Royalty) from Greenvale.

In accordance with the terms of the Deed, SRK Australia Pty Ltd (SRK) were appointed to provide an independent preferred valuation and following the completion of its process, arrived at a value of \$70,000 plus any applicable Goods and Services Tax. The Board of Astute elected to acquire the Royalty by issuing 2,413,793 fully-paid ordinary shares in ASE ("Shares") at a price of 2.9 cents per Share, which was subject to shareholder approval.

Approval was received on 23 December 2024 and, as a result, the acquisition was completed.

The acquisition provides simplification of the ownership of Georgina Basin.

### Sale of diamond assets

During the quarter, the Company executed an agreement to sell its West Australian diamond assets, namely its East Kimberley Diamond tenement E80/4120 and its Heavy Mineral Separation (HMS) plant (collectively, the Diamond Assets), for a total consideration of \$125,000 in cash to privately owned company J.B.J Capital Pty Ltd. As part of the sale, the Company has disposed of its 100%-owned subsidiaries, East Kimberley Diamonds Pty Ltd and Argyle Resources Limited.

The sale allows the Company to focus on its key assets.

### Launch of Investor Hub

During the quarter, the Company launched a new investor website, a dedicated platform designed to foster transparent communication with the Company's valued shareholders and interested investors.

The refreshed Astute website and investor hub platform can be accessed via the link:

<https://astutemetals.com/>

The Investor Hub provides a more streamlined location for shareholders to access company content and updates and to engage with management, including:

- ASX announcements
- Reports
- Presentations
- Interviews & Videos
- Corporate research
- Educational material

Investor Hub also provides an interactive online experience, allowing Astute stakeholders to comment on and ask the Astute management team questions on announcements and updates via a portal which will be monitored and responded to in a timely manner.

### Annual General Meeting

During the quarter, the Company held its Annual General Meeting and passed the following resolutions:

- Adoption of the Remuneration Report;
- Re-election of Matt Healy as a Director;
- Re-election of Tony Leibowitz as a Director; and
- Approval of Mandate to issue an additional 10% under Listing Rule 7.1A.

## General Meeting

The Company held a General Meeting and passed the following resolutions:

- The acquisition of the Royalty and the issue of the Shares;
- The issue of a total of 1,862,069 fully paid shares to Tony Leibowitz, John Young and Vince Fayad for part payment of their Director fees. This issue is part of the Company's strategy to reduce the level of cash burn.

## ASX Additional Information

The Company provides the following information pursuant to ASX Listing Rule requirements:

1. **ASX Listing Rule 5.3.1:** Exploration and Evaluation Expenditure spend during the quarter was \$770,535. Full details of exploration activity during the 31 December 2024 quarter are set out in this report.
2. **ASX Listing Rule 5.3.2:** The Company confirms that there was no mine production and development activities for the quarter.
3. **ASX Listing Rule 5.3.5:** Payment to related parties of the Company and their associates during the quarter was \$152,300 in cash, and \$54,000 in ordinary shares (in lieu of directors fees).

The Company advises that this relates to remuneration of Directors only. Set out below is the following additional information in relation to the cash flow statement:

Name of Director	Nature of Payment	Cash Amount (\$) [excluding any GST]	Shares Amount (\$)
Tony Leibowitz	Ongoing Non-Executive Chairman fees	15,455	15,000
John Young	Ongoing Non-Executive Director fees	15,682	11,250
Matthew Healy	Ongoing Executive Director fees, including superannuation	82,483	-
Vincent Fayad	Executive Director, Company Secretary and Chief Financial Officer	38,680	27,750
<b>Total</b>		<b>152,300</b>	<b>54,000</b>

**Table 7.** Director's remuneration

4. **ASX Listing Rule 5.19.2:** The Company confirms that all material assumptions underpinning the targets and financial information continue to apply and have not materially changed during the quarter.

## Tenements

In accordance with Listing Rule 5.3.3, Astute provides the following Information concerning its exploration licences.

**Appendix 1** sets out a list of the Company's exploration licences held at the end of the quarter.

## 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:

Date of announcement	Name of announcement
23 December 2024	Results from the General Meeting.
20 December 2024	Astute Launches Investor Hub service
17 December 2024	Disposal of Western Australian Diamond Project
16 December 2024	Major New Zones of Lithium Mineralisation at Red Mountain
9 December 2024	Positive Initial Metallurgical Results at Red Mountain
21 November 2024	Notice of General Meeting
18 November 2024	Drilling complete at Leichhardt East
15 November 2024	Notice of Annual General Meeting
4 November 2024	Drilling commences at Georgina Basin to Test High Impact Target
29 October 2024	Acquisition of 2% Royalty at the Georgina Basin IOCG Project.
10 October 2024	Drilling commences at the Red Mountain Lithium Project
4 April 2024	Governor Broome Mineral Sands Project Scoping Study

**Table 8:** Summary of announcements referenced in this report

### Authorisation

This announcement has been authorised for release by the Board of Astute.

### More Information

Matt Healy  
Executive Director & CEO  
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+61 (0) 431 683 952

Nicholas Read  
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### Competent Persons

The information in this report that relates to:

#### Nevada Lithium Projects

The information in this report that relates to Nevada Lithium Projects Sampling Techniques and Data (Section 1) is based on information compiled by Mr Matthew Healy, a Competent Person who is a Member of The Australasian Institute of Mining and Metallurgy (AusIMM Member number 303597). Mr Healy is a full-time employee of Astute Metals NL and is eligible to participate in a Loan Funded Share incentive plan of the Company. Mr Healy has sufficient experience that is relevant to the style of mineralisation and type of deposit under consideration and to the activity being undertaken to qualify as a Competent Person as defined in the 2012 Edition of the 'Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves'. Mr Healy consents to the inclusion in the report of the matters based on his information in the form and context in which it appears.

The information in this report that relates to the Nevada Lithium Projects Reporting of Exploration Results

(Section 2) is based on information compiled by Mr Richard Newport, principal partner of Richard Newport & Associates – Consultant Geoscientists. Mr Newport is a member of the Australian Institute of Geoscientists and has sufficient experience which is 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 under the 2012 Edition of the 'Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves'. Mr. Newport consents to the inclusion in this announcement of the matters based on his information in the form and context in which it appears.

### **Georgina Basin**

The information in this report that relates to Exploration Results associated with the NT Georgina project is based on information compiled by Mr Matthew Healy, a Competent Person who is a Member of The Australasian Institute of Mining and Metallurgy (AusIMM Member number 303597). Mr Healy is a full-time employee of Astute Metals NL and is eligible to participate in a Loan Funded Share incentive plan of the Company. Mr Healy has sufficient experience that is relevant to the style of mineralisation and type of deposit under consideration and to the activity being undertaken to qualify as a Competent Person as defined in the 2012 Edition of the 'Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves'. Mr Healy consents to the inclusion in the report of the matters based on his information in the form and context in which it appears.

### **Governor Broome**

The information in this report as it relates to Mineral Resources and Exploration Results for the Governor Broome Project is based on information compiled by John Doepel, a Director of Continental Resource Management Pty Ltd (CRM), who is a member of the Australasian Institute of Mining and Metallurgy. Mr Doepel has sufficient experience in mineral resource estimation relevant to the style of mineralisation and type of deposit under consideration to qualify as a Competent Person as defined in the 2012 Edition of the "Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves". Mr Doepel consents to the inclusion in this announcement of the information in the form and context in which it appears.

## APPENDIX 1 – List of Tenements

Astute Metals NL (ASX: ASE) provides the following addendum in relation to additional information required by Listing Rule 5.3.3.

### Schedule of Mining Tenements, Beneficial Interests and agreements

Held as at the end of the Quarter

Holder	Project	Tenement	Location	Lease Status
Knox Resources Pty Ltd	Georgina Basin	EL32282	Barkly - NT	Granted
Knox Resources Pty Ltd	Georgina Basin	EL32281	Barkly - NT	Granted
Knox Resources Pty Ltd	Georgina Basin	EL32296	Barkly - NT	Granted
Knox Resources Pty Ltd	Georgina Basin	EL33376	Barkly - NT	Granted
Knox Resources Pty Ltd	Georgina Basin	EL33375	Barkly - NT	Granted
Knox Resources Pty Ltd	Georgina Basin	EL32285	Barkly - NT	Granted
Knox Resources Pty Ltd	Georgina Basin	EL32286	Barkly - NT	Granted
Knox Resources Pty Ltd	Georgina Basin	EL32280	Tennant Creek - NT	Application
Knox Resources Pty Ltd	Georgina Basin	EL32284	Barkly - NT	Application
Knox Resources Pty Ltd	Georgina Basin	EL32965	Barkly - NT	Application
Governor Broome Sands Pty Ltd	Governor Broome	Retention Licence R70/53	Nannup - Southern WA	Granted
Governor Broome Sands Pty Ltd	Governor Broome	Retention Licence R70/58	Nannup - Southern WA	Granted
Governor Broome Sands Pty Ltd	Governor Broome	Retention Licence R70/22	Nannup - Southern WA	Granted
Governor Broome Sands Pty Ltd	Governor Broome	Exploration Licence EL70/5872	Nannup - Southern WA	Granted
Governor Broome Sands Pty Ltd	Governor Broome	Exploration Licence EL70/5826	Nannup - Southern WA	Granted

## APPENDIX 1 – List of Tenements

Holder	Project	Tenement	Location	Lease Status
Governor Broome Sands Pty Ltd	Governor Broome	Exploration Licence EL70/5200	Nannup - Southern WA	Granted
Needles Holdings	Needles	Various claims	Nevada - USA	Granted
Needles Holdings	Cobre	Various claims	Nevada - USA	Granted
Needles Holdings	Red Mountain	Various claims	Nevada - USA	Granted

### Schedule of Mining Tenements, Beneficial Interests and agreements Disposed of during the Quarter

Disposed of during the Quarter

Holder	Project	Tenement	Location	Lease Status
East Kimberley Diamond Mines	Lower Smoke Creek	E80/4120	Kimberley - Northern WA	Disposed

For personal use only

## Appendix 5B

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

Name of entity	
<b>ASTUTE METALS NL</b>	
ABN	Quarter ended ("current quarter")
<b>96 007 090 904</b>	<b>31 December 2024</b>

Consolidated statement of cash flows	Current quarter \$A'000	Year to date (6 months) \$A'000
<b>1. Cash flows from operating activities</b>		
1.1 Receipts from customers		
1.2 Payments for exploration & evaluation development production staff costs administration and corporate costs	(298)	(644)
1.3 Dividends received (see note 3)		
1.4 Interest received	-	1
1.5 Interest and other costs of finance paid		
1.6 Income taxes paid		
1.7 Government grants and tax incentives	50	50
1.8 Other (provide details if material)		
<b>1.9 Net cash from / (used in) operating activities</b>	<b>(248)</b>	<b>(593)</b>
<b>2. Cash flows from investing activities</b>		
2.1 Payments to acquire or for: entities	25	25
tenements (including transaction costs) property, plant and equipment exploration & evaluation investments other non-current assets	(779)	(2,065)

<b>Consolidated statement of cash flows</b>		<b>Current quarter \$A'000</b>	<b>Year to date (6 months) \$A'000</b>
2.2	Proceeds from the disposal of: entities tenements property, plant and equipment investments other non-current assets	100	155
2.3	Cash flows from loans to other entities		
2.4	Dividends received (see note 3)		
2.5	Other (bond payment – property)	24	17
<b>2.6</b>	<b>Net cash from / (used in) investing activities</b>	<b>(630)</b>	<b>(1,868)</b>
<b>3.</b>	<b>Cash flows from financing activities</b>		
3.1	Proceeds from issues of equity securities (excluding convertible debt securities)	-	2,968
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	(11)	(309)
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 (Funds held on Trust)		
<b>3.10</b>	<b>Net cash from / (used in) financing activities</b>	<b>(11)</b>	<b>2,659</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	1,447	360
4.2	Net cash from / (used in) operating activities (item 1.9 above)	(248)	(593)
4.3	Net cash from / (used in) investing activities (item 2.6 above)	(630)	(1,868)
4.4	Net cash from / (used in) financing activities (item 3.10 above)	(11)	2,659

<b>Consolidated statement of cash flows</b>		<b>Current quarter \$A'000</b>	<b>Year to date (6 months) \$A'000</b>
4.5	Effect of movement in exchange rates on cash held	-	-
<b>4.6</b>	<b>Cash and cash equivalents at end of period</b>	<b>558</b>	<b>558</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	558	1,447
5.2	Call deposits		
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>558</b>	<b>1,447</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	51
6.2	Aggregate amount of payments to related parties and their associates included in item 2	101

*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.*

The above payments to related party and associates refers to payments made (in cash) during the quarter. More information concerning the breakdown of the above payments to directors and their related parties can be found within the accompanying Quarterly Activities Report.

7.	<b>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.</i>		
	<i>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)	-	-
7.4	<b>Total financing facilities</b>	-	-
7.5	<b>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.		

8.	<b>Estimated cash available for future operating activities</b>	<b>\$A'000</b>
8.1	Net cash from / (used in) operating activities (item 1.9)	(248)
8.2	(Payments for exploration & evaluation classified as investing activities) (item 2.1(d))	(779)
8.3	Total relevant outgoings (item 8.1 + item 8.2)	(1,027)
8.4	Cash and cash equivalents at quarter end (item 4.6)	558
8.5	Unused finance facilities available at quarter end (item 7.5)	-
8.6	Total available funding (item 8.4 + item 8.5)	558
8.7	<b>Estimated quarters of funding available (item 8.6 divided by item 8.3)</b>	0.54
	<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:  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?	
	<i>No. During the quarter, the Company incurred exploration costs in respect to its Red Mountain drilling campaign and at its Georgina Basin IOCG Project.</i>	
	<i>Such exploration works were completed in the December 2024 quarter and therefore such costs won't be incurred in following quarters.</i>	

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?

*The Company took the following steps during the quarter to raise funds:*

- (a) disposal of its Heavy Mineral separation Plant (HMS), for \$100,000 (plus GST); and*
- (b) disposal of the East Kimberley Diamonds project, for \$25,000.*

*Additionally, the Company announced on the 23<sup>rd</sup> January 2025 to be placed in a trading halt for the purposes of a capital raising. The Company expects to come out of the trading halt by the 29<sup>th</sup> January 2024. The Board anticipates that the capital raising will allow it to meet its objectives.*

Does the entity expect to be able to continue its operations and to meet its business objectives and, if so, on what basis?

*Yes, the Company expects that it will be able to meet its business objectives as it considers that it has sufficient cash reserves to meet its operating costs for the foreseeable future. As noted in Response 8.1 above, the Company's cash outflows are expected to significantly decrease over future quarters as there will be a reduction in costs attributed to its exploration programs.*

*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: **29 January 2025**

Authorised by: **The Board of Astute Metals NL**  
(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.