

## SIGNIFICANT EXPLORATION TARGET ESTABLISHED FOR RED MOUNTAIN LITHIUM PROJECT, USA



### Key Highlights

- Initial JORC-compliant Exploration Target estimated for the Red Mountain Lithium Project in Nevada, USA.
- Exploration Target divided into Target A and Target B, based on host rocks and exploration work completed to date.
- Exploration Target A to be the focus of upcoming exploration drilling at the Project in the first half of 2025.
- Exploration Target B to undergo further surface sampling before exploration drilling in H2 2025.
- Two drill campaigns planned for 2025, with Maiden Mineral Resource Estimate (MRE) scheduled for Q4 2025.

Astute Metals NL (**ASX: ASE**) ("**ASE**", "**Astute**" or "**the Company**") is pleased to announce an initial JORC 2012 compliant Exploration Target for its 100%-owned Red Mountain Lithium Project, located in Nevada, USA. The global Exploration Target is estimated to range from 1,136Mt to 1,515Mt at an average grade ranging between 785 and 1,328ppm Li, or 0.42 and 0.71% Lithium Carbonate Equivalent (LCE)<sup>14</sup>.

### Cautionary Statement

The potential quantity and grade of the Exploration Targets set out in Table 1 is conceptual in nature. There has been insufficient exploration to date to estimate a Mineral Resource and it is uncertain if further exploration will result in the estimation of a Mineral Resource. The Exploration Target has been prepared and reported in accordance with the 2012 edition of JORC Code.

Exploration Target	Ranges			
	Tonnage (Mt)	Grade (ppm Li)	Grade (% LCE)	LCE (Mt)
Red Mountain	1,136 – 1,515	785 – 1,328	0.42 – 0.71%	4.7 – 10.7

**Table 1.** Combined initial Exploration Target for the Red Mountain Lithium Project.

The Company has undertaken significant exploration at the Red Mountain Project, including soil and rock chip sampling, geological mapping of rock types, structural orientation measurements, Reverse Circulation (RC) and diamond exploration drilling. The results form the basis of the Exploration Target.

The Project Exploration Target in Table 1 has been calculated from two separate areas, Target area A and Target area B, based on differing geological characteristics, the varying level of exploration work conducted to date and the Company's differentiated plans for advancing exploration at each Target.

### Astute Chairman, Tony Leibowitz, said:

*"The declaration of an initial Exploration Target is a significant milestone for Astute, demonstrating to shareholders and investors that Red Mountain is a substantial lithium discovery with the potential to become a project of significance on the US critical minerals stage.*

*"The initial Exploration Target shows the scope to rapidly drill out a substantial part of Red Mountain which we believe could rival some of the biggest lithium projects in North America.*

*"The Project is located in the Tier-1 mining jurisdiction of Nevada and with the new Trump Administration is prioritising fast-tracked permitting and development of domestic critical metals projects, Astute is well-placed to unlock the significant value of this discovery for our shareholders.*

*We are looking forward to getting drill rigs back on site as soon as possible to focus on Target A, with the aim of establishing a maiden JORC compliant Mineral Resource by the end of this year."*

## **Background**

Located in central-eastern Nevada (Figure 5), 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<sup>2</sup>. Elsewhere in the state of Nevada, equivalent rocks host large lithium deposits (see Figure 4) such as Lithium Americas' (NYSE: LAC) 62.1Mt LCE Thacker Pass Project<sup>2</sup> and American Lithium (TSX.V: LI) 9.79Mt LCE TLC Lithium Project<sup>3</sup>.

Astute has completed substantial surface sampling campaigns at Red Mountain, which indicate widespread lithium anomalism in soils and confirmed lithium mineralisation in bedrock with some exceptional grades of up to 4,150ppm Li<sup>1,6</sup> (Figures 1, 2 & 3).

A total of 13 RC and diamond drill holes have been drilled at the project for a combined 1,944.72m. Both campaigns were highly successful with strong lithium mineralisation intersected in every hole drilled<sup>7</sup> (Figure 1).

Scoping leachability testwork on mineralised material from Red Mountain indicates high leachability of lithium of up to 98%, varying with temperature, acid strength and leaching duration<sup>8</sup>.

Geological mapping undertaken in late 2024 delineated the extents of various rock types across the project, identified the most clay-rich rock units, and included the taking of numerous structural measurements in order to increase confidence in geological understanding of the project (Figure 4).

## **Target Area A**

Exploration Target A consists of two approximately north-south trending zones of potential lithium mineralisation, measuring approximately 6.6km and 2.9km in length, respectively (Figures 1-4). It is postulated that Target A dips to the east at an approximate 30° dip to an approximate depth of 200m below the topographic surface.

### *Basis of Exploration Target*

These zones of potential have been interpreted through a combination of several sets of exploration results collected to date at the project, including:

- Soil sample lithium geochemistry<sup>13</sup>
- Rock-chip sample lithium geochemistry<sup>1, 6, 9</sup>
- Geological mapping of rock types<sup>9</sup>
- Strike and dip measurements taken on outcropping rocks<sup>9</sup>
- Lineaments or form-lines in aerial imagery
- Intersections of lithium mineralisation in nine RC and two diamond drill holes<sup>5, 7, 10, 11, 12</sup>

Results for each of these campaigns are available in the original ASX releases, referenced at the end of this announcement. The outline of Target A has been digitized by the Astute technical team, representing an interpretation of lithium mineralisation potential at surface. This interpretation is based on lithium mineralisation intersected in nine RC and two diamond drill holes (projected to surface), elevated lithium grades in rock chip and in soil samples. The boundaries of Target A have been guided by the orientation of strike measurements, form-lines and stratigraphic contacts identified through geological mapping at the Project.

Target A is situated entirely within the mapped extents of Unit O of the Horse Camp Formation, which includes intervals of claystone, siltstone/shale, sandstone, pebble conglomerate limestone and tuff<sup>9</sup>. Target A has been projected down-dip to a depth of 200m below surface, a depth extent the Company intends to drill test in the upcoming drill campaigns.

### *Exploration completed to date*

Target A is at early exploration development status. Work conducted to date includes soil and rock chip sampling (Figures 1-3), geological mapping and structural measurements (Figure 4), RC and Diamond exploration drilling (Figure 1) and metallurgical test-work. Soil samples are at 100m intervals along 400m

spaced east-west lines (Figure 3), rock chip samples are irregularly spaced (Figure 2). Drill-hole spacing is irregular, ranging from 3m to approximately 1.7km (Figure 1), reflecting the early exploration nature of the Project. Drill intersections to date from within Target area A are as follows:

RMRC001 :	59.4m @ 1,300ppm Li / 0.69% Lithium Carbonate Equivalent (LCE)* from 73.2m
RMRC002 :	15.2m @ 810ppm Li / 0.43% LCE from 15.2m
RMRC003 :	6.1m @ 1,050ppm Li / 0.56% LCE from surface, and 12.2m @ 1,060ppm Li / 0.56% LCE from 18.3m
RMRC004 :	13.7m @ 1,070ppm Li / 0.57% LCE from surface 83.8m @ 1,230ppm Li / 0.65% LCE from 16.8m
RMRC005 :	26.0m @ 656ppm Li / 0.35% LCE from 3.0m 80.8m @ 1,270ppm Li / 0.68% LCE from 56.4m to End of Hole
RMRC006 :	62.5m @ 1,070ppm Li / 0.57% LCE from 6.1m 15.3m @ 896ppm Li / 0.48% LCE from 71.6m 70.1m @ 1,090ppm Li / 0.58% LCE from 89.9m
RMRC007 :	74.7m @ 1,160ppm Li / 0.61% LCE from 18.3m 25.9m @ 1,580ppm Li / 0.84% LCE from 115.8m
RMRC008 :	25.9m @ 1,120ppm Li / 0.60% LCE from 73.2m
RMRC009 :	50.3m @ 908ppm Li / 0.48% LCE from 15.2m 18.3m @ 904ppm Li / 0.48% LCE from 68.6m 13.7m @ 995ppm Li / 0.53% LCE from 99.1m 29.0m @ 1,060ppm Li / 0.57% LCE from 123.4m to End of Hole
RMDD001 :	7.3m @ 1,350ppm Li / 0.72% LCE from 50.3m 25.9m @ 1,530ppm Li / 0.82% LCE from 76.2m
RMDD002 :	86.9m @ 1,470ppm Li / 0.78% LCE from 18.3m

### Target Area B

Exploration Target B consists of a semi-oval zone of potential lithium mineralisation, with dimensions measuring approximately 1.6km and 900m in length, respectively. Target B is centred over an interpreted structural trough, with structural measurements indicating bedding dipping steeply toward the trough axis. Target B has an approximate depth of 200m below the topographic surface.

#### *Basis of Exploration Target*

The Target B zone of potential has been interpreted through a combination of several sets of exploration results collected to date at the project, including:

- Soil sample lithium geochemistry<sup>13</sup>
- Rock-chip sample lithium geochemistry<sup>9</sup>
- Extents of geologically mapped rock type<sup>9</sup>
- Strike and dip measurements taken on outcropping rocks<sup>9</sup>
- Lineaments or form-lines in aerial imagery
- Intersection of lithium mineralisation in one RC drill hole<sup>10</sup>

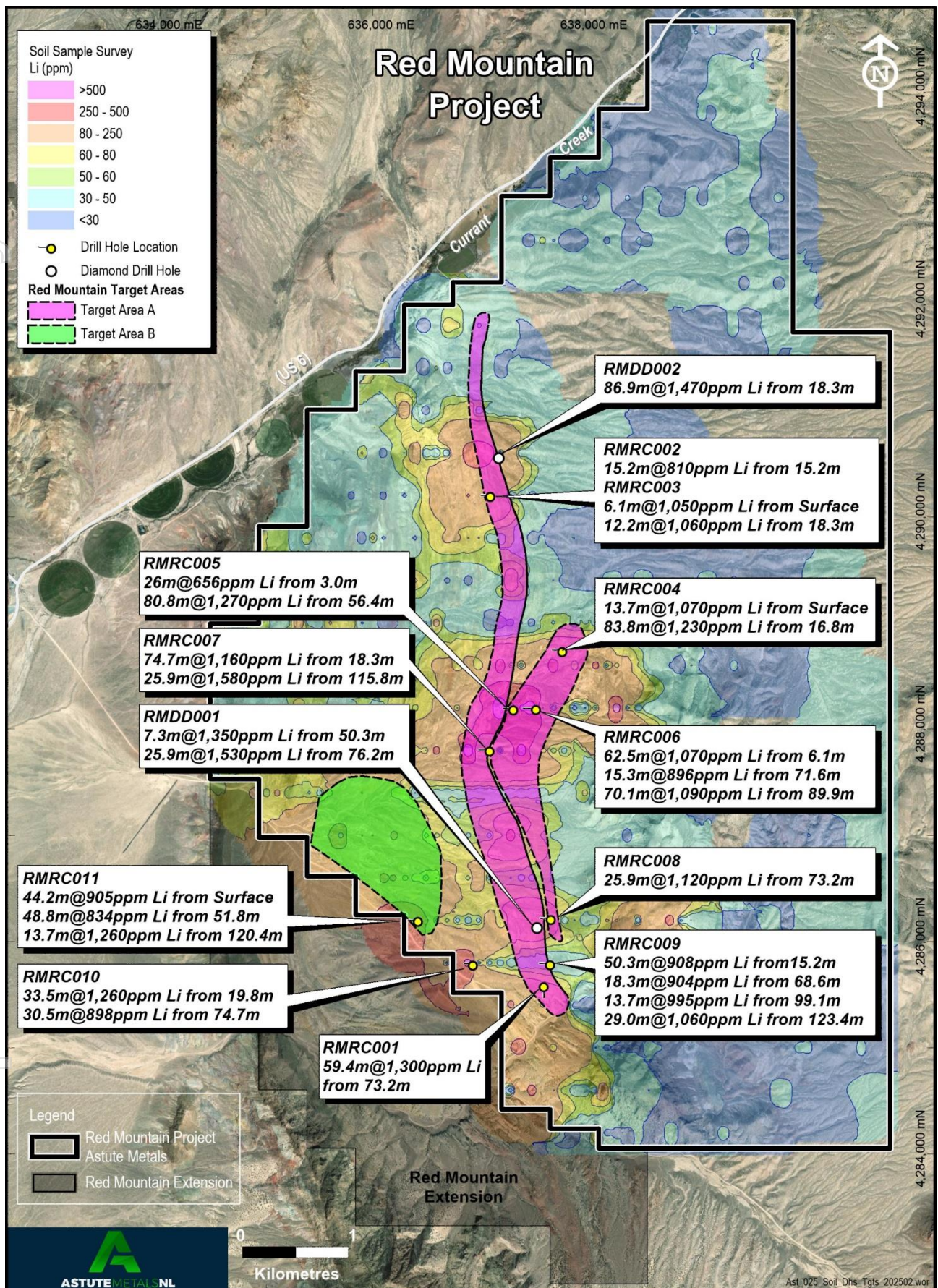
Results for each of these campaigns are available in the original ASX releases, referenced at the end of this announcement. The outline of Target B has been digitized by the Astute technical team, representing an interpretation of lithium mineralisation potential at surface. This interpretation is based on lithium mineralisation intersected in one RC drill hole, elevated lithium grades in rock chip and soil samples. The boundaries of Target B have been guided by the orientation of strike measurements, form-lines and mapped stratigraphic contacts.

Target B is situated almost entirely within the mapped extents of Unit J of the Horse Camp Formation, which consists mainly of claystone and siltstone with subordinate intervals of fine-grained well-sorted sandstone<sup>9</sup>.

#### *Exploration completed to date*

Target B is best described as being at early exploration status and is notably at an earlier stage of exploration than Target A. Work conducted to date include soil and rock chip sampling, geological mapping and structural measurements, and a single RC exploration drill hole. Soil samples are at 100m intervals along 400m spaced east-west lines (Figure 3), rock chip samples are irregularly spaced (Figure 2). Drill intersections to date from within Target B are as follows:

RMRC011 :	44.2m @ 905ppm Li / 0.48% LCE from Surface 48.8m @ 834ppm Li / 0.44% LCE from 51.8m 13.7m @ 1,260ppm Li / 0.67% LCE from 120.4m End of Hole
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**Figure 1.** Red Mountain drill-hole intersections, gridded soil geochemistry and Exploration Targets A and B.

**Cautionary Statement**

The potential quantity and grade of the Exploration Targets presented in Figure 1 is conceptual in nature. There has been insufficient exploration to date to estimate a Mineral Resource and it is uncertain if further exploration will result in the estimation of a Mineral Resource. The Exploration Target has been prepared and reported in accordance with the 2012 edition of JORC Code.

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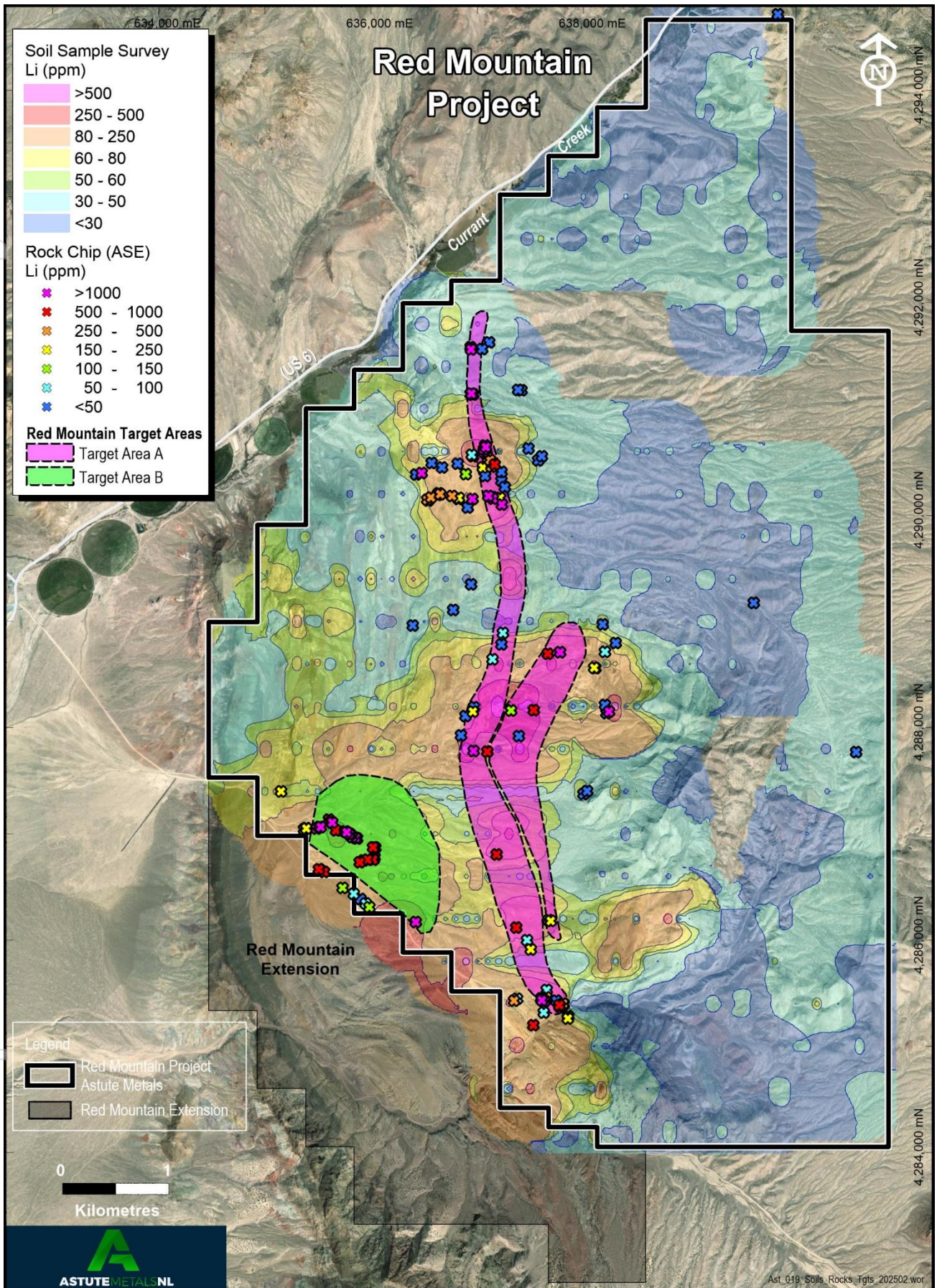
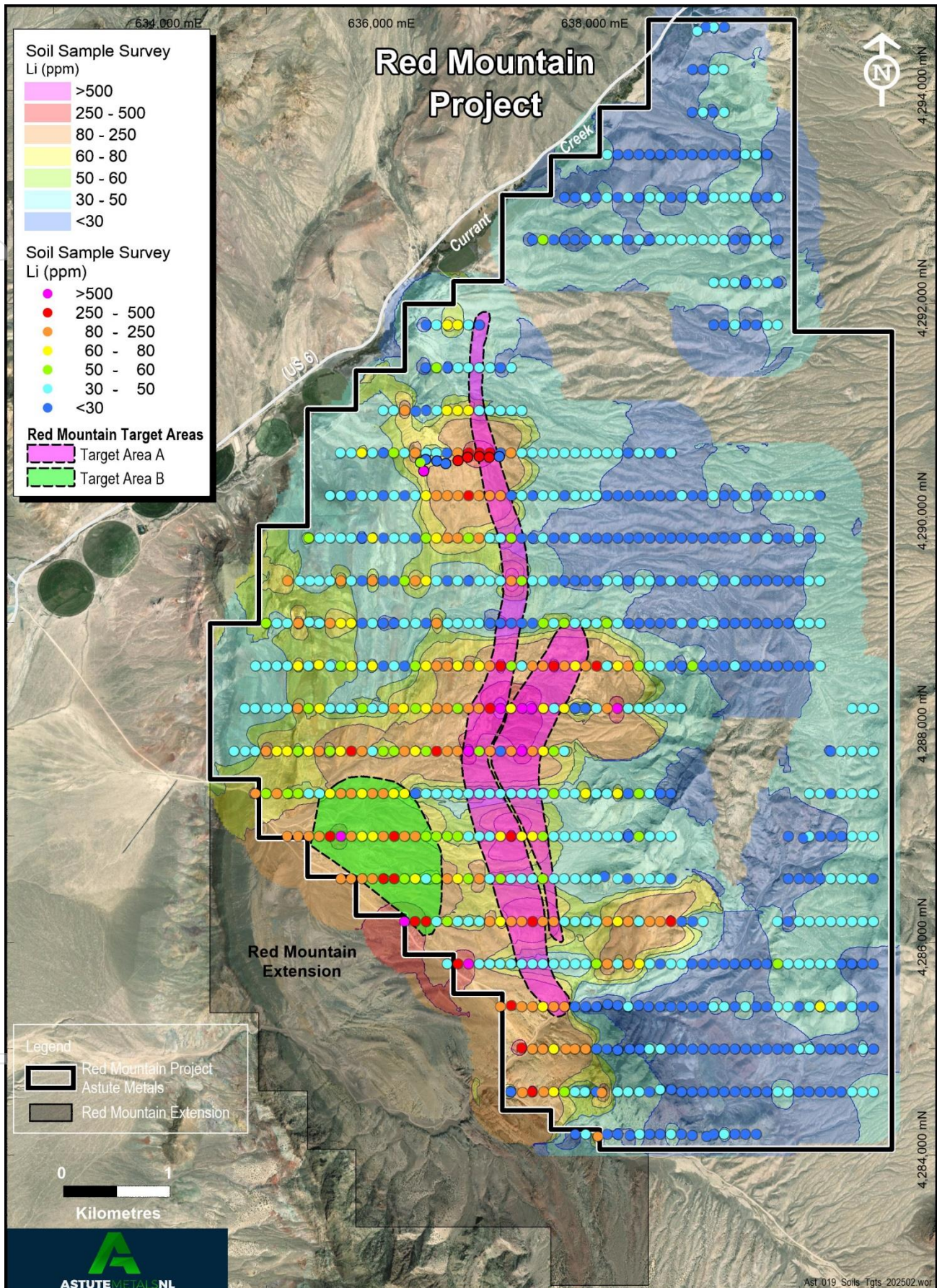


Figure 2. Red Mountain rock chip samples, gridded soil geochemistry and Exploration Targets A and B.

### Cautionary Statement

The potential quantity and grade of the Exploration Targets presented in Figure 2 is conceptual in nature. There has been insufficient exploration to date to estimate a Mineral Resource and it is uncertain if further exploration will result in the estimation of a Mineral Resource. The Exploration Target has been prepared and reported in accordance with the 2012 edition of JORC Code.

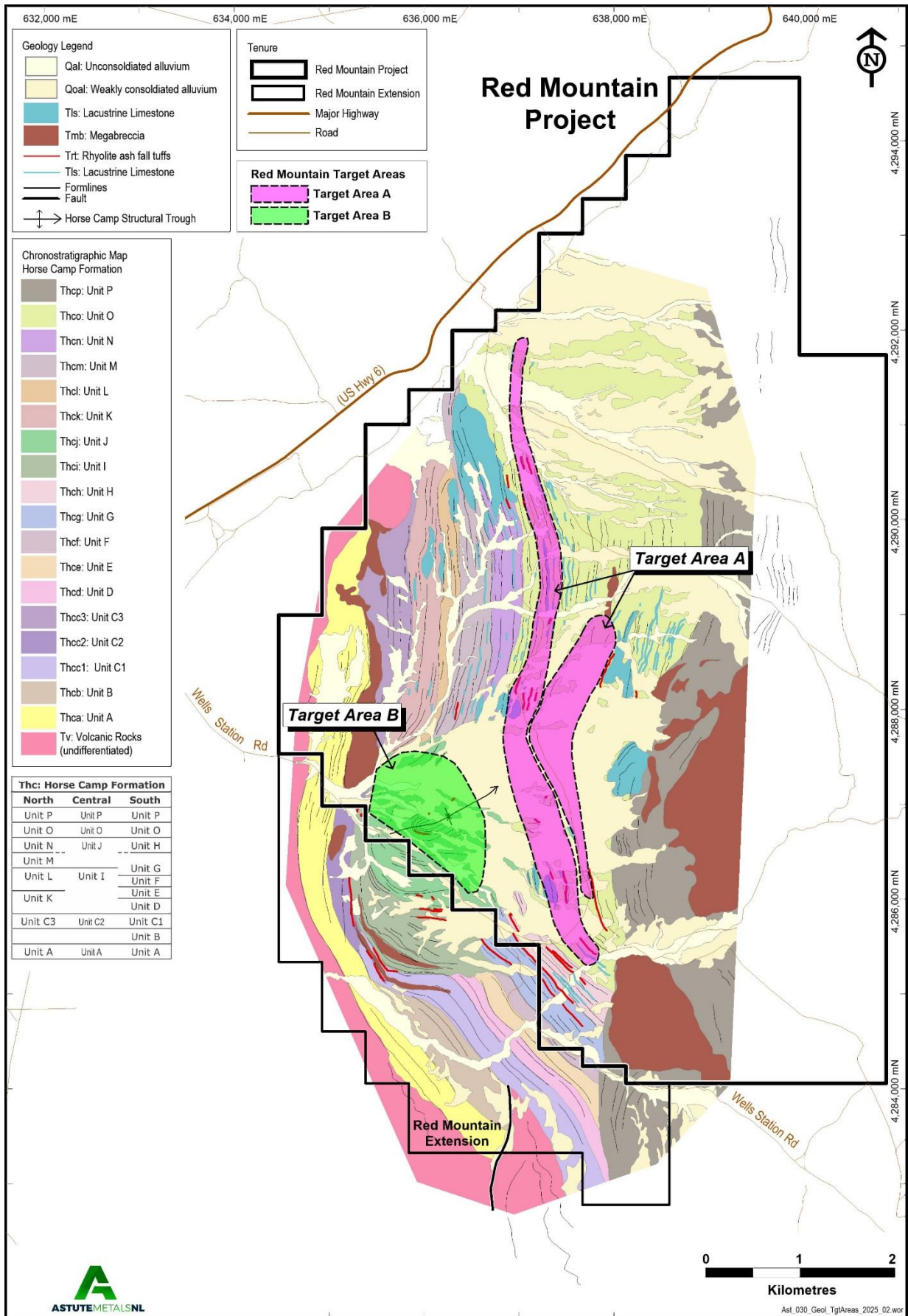
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**Figure 3.** Red Mountain soil sample locations, gridded soil geochemistry and Exploration Targets A and B.

### Cautionary Statement

**The potential quantity and grade of the Exploration Targets presented in Figure 3 is conceptual in nature. There has been insufficient exploration to date to estimate a Mineral Resource and it is uncertain if further exploration will result in the estimation of a Mineral Resource. The Exploration Target has been prepared and reported in accordance with the 2012 edition of JORC Code.**



**Figure 4.** Red Mountain mapped geology and Exploration Targets A and B.

**Cautionary Statement**

**The potential quantity and grade of the Exploration Targets presented in Figure 4 is conceptual in nature. There has been insufficient exploration to date to estimate a Mineral Resource and it is uncertain if further exploration will result in the estimation of a Mineral Resource. The Exploration Target has been prepared and reported in accordance with the 2012 edition of JORC Code.**

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## Exploration Target Summary

The Company has calculated separate exploration targets for Target area A and Target area B, which together form a combined Red Mountain Project Exploration Target. The upper end of the tonnage volume range has been calculated using the surface area for Target areas A and B and their projected down-dip extents. Target area A has been projected 30° down-dip to the east, and Target area B being projected vertically downward, and both Target areas projected to 200m below surface level. A 25% reduction in tonnage has been applied for a lower end of the tonnage range. A 2g/cm<sup>3</sup> density has been applied. Grade ranges have been estimated statistically, where upper and lower grade ranges are 75<sup>th</sup> and 25<sup>th</sup> percentiles of drill sample lithium grades from the aforementioned intersections that are within the Exploration Target areas, respectively. The resultant Exploration Targets for Target areas A and B are tabulated in Table 2.

The global Red Mountain Project Exploration Target tonnage range was derived by adding the lower and upper ranges of Target areas A and B, and the grade range was derived by averaging the lower and upper grade ranges of Target areas A and B, weighting in both instances by the respective lower and upper tonnage. Grade ranges are provided as Lithium (ppm) and Lithium Carbonate Equivalent weight percent (% LCE).

Exploration Target	Range			
	Tonnage (Mt)	Grade (ppm Li)	Grade (% LCE)	LCE (Mt)
Target area A	796 – 1,061	780 – 1,470	0.41 – 0.78%	3.3 – 8.3
Target area B	341 – 454	799 – 997	0.43 – 0.53%	1.4 – 2.4
<b>Red Mountain Project</b>	<b>1,136 – 1,515</b>	<b>785 – 1,328</b>	<b>0.42 – 0.71%</b>	<b>4.7 – 10.7</b>

**Table 2.** Initial Exploration Target for Red Mountain Lithium Project, comprising Target areas A and B.

### Cautionary Statement

**The potential quantity and grade of the Exploration Targets set out in Table 2 is conceptual in nature. There has been insufficient exploration to date to estimate a Mineral Resource and it is uncertain if further exploration will result in the estimation of a Mineral Resource. The Exploration Target has been prepared and reported in accordance with the 2012 edition of JORC Code.**

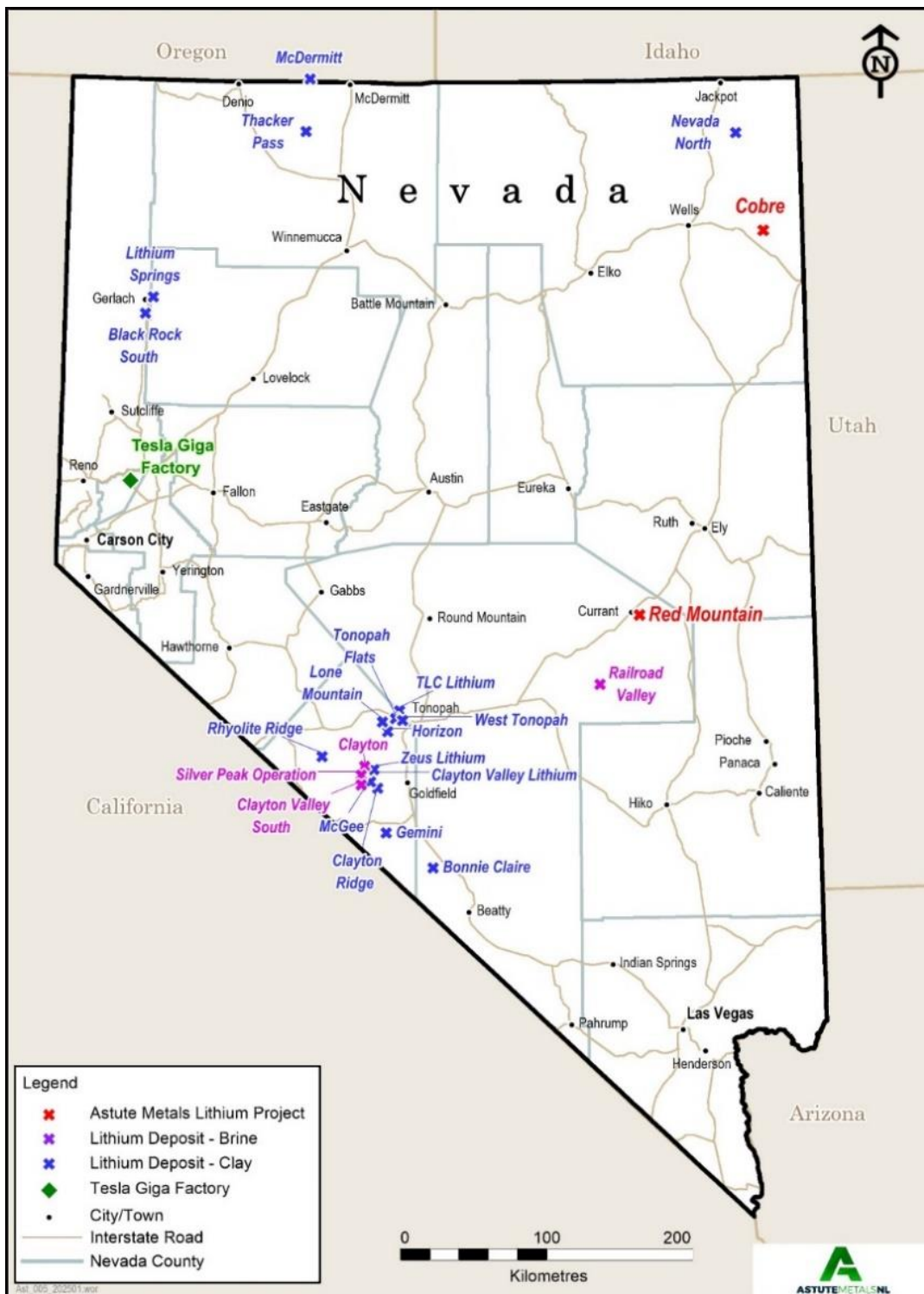
### Planned Forward Exploration

Based on the increased amount of exploration to date, presence of high-grade intersections in multiple drill-holes and the smaller land disturbance requirement, Target area A has been prioritised for mineral resource drilling. The Company intends to conduct sufficient exploration drilling in two separate drilling campaigns through the 2025 field season to enable a Maiden Mineral Resource Estimate to be calculated for Target area A by the end of the year. Results from the first drilling campaign will be used to guide drill hole design for the second and final drill campaign of the year.

Further exploration at Target area B in the 2025 field season will comprise more systematic rock chip sampling across the Target area, with a small drill campaign will follow this sampling in the second half of 2025. This drilling will be designed to test for variability in lithium grades through the steeply dipping stratigraphy, which will be essential to establishing drill orientations for further drilling, likely to be conducted in 2026.

### Next Steps

The Company is well-progressed in finalising drill-hole designs for the upcoming diamond drilling campaign at Red Mountain, set to commence after the Nevada winter. The holes to be drilled will test strategic locations along the strike of Target area A as the project is advanced toward a Maiden Mineral Resource Estimate at the end of the calendar year.



**Figure 5.** Red Location of Astute Lithium Projects, and Nevada lithium deposits.

- 1 ASX: ASE 27 November 2023 'Outstanding Rock-Chip Assays at Red Mountain Project'
- 2 NYSE: LAC 31 December 2024 Updated NI 43-101 Technical Report for the Thacker Pass Project
- 3 TSX.V: LI 17 March 2023 'Tonopah Lithium Claims project NI 43-101 technical report – Preliminary Economic Assessment'
- 4 Source: Benchmark Mineral Intelligence – Lithium Carbonate China Index 12/06/2024
- 5 ASX: ASE 16 December 2024 'Major new zones of Lithium Mineralisation at Red Mountain Project'
- 6 ASX: ASE 8 July 2024 'High-grade rock chip assays extend prospective lithium horizon at Red Mountain Project, USA'
- 7 ASX: ASE 20 January 2025 'Extension of Lithium Discovery at Red Mountain Project'
- 8 ASX: ASE 9 December 2024 'Positive initial metallurgical results from Red Mountain'
- 9 ASX: ASE 4 February 2025 'Geological mapping and further rock chips enhance Red Mountain Lithium Project, USA'
- 10 ASX: ASE 7 August 2024 'Receipt of final assays for the Red Mountain Project'
- 11 ASX: ASE 22 July 2024 'Further high-grade intersections at Red Mountain'
- 12 ASX: ASE 18 June 2024 'Significant Lithium discovery at Red Mountain Project'
- 13 ASX: ASE 20 November 2023 'Large lithium soil anomalies discovered at Red Mountain'
- 14 Lithium Carbonate Equivalent wt%(LCE) has been calculated from Lithium parts-per-million (ppm) by the formula  $LCE = Li (ppm) \times 5.323 / 10,000$

## Authorisation

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



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## Competent Persons

The information in this report that relates to Exploration Target 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 this information in the form and context in which it appears.

The initial exploration target the subject of this release has been wholly based on previously announced exploration results for the Red Mountain Project. The ASX releases for these results, including the relevant JORC Table 1 disclosures, are listed as follows:

- ASX: ASE 20 November 2023 'Large lithium soil anomalies discovered at Red Mountain'
- ASX: ASE 27 November 2023 'Outstanding Rock-Chip Assays at Red Mountain Project'
- ASX: ASE 18 June 2024 'Significant Lithium discovery at Red Mountain Project'
- ASX: ASE 8 July 2024 'High-grade rock chip assays extend prospective lithium horizon at Red Mountain Project, USA'
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