28 July 2023

THICK LITHIUM CLAYSTONE HOST-ROCKS INTERSECTED AT ALTAIR, USA

Drilling hits wide zones of Siebert formation, a key regional host rock for claystone-hosted lithium deposits

Key Highlights

- **109.7m (360ft) of prospective Siebert formation claystone intersected in the first Altair Project drill hole, AL01.**
- **59.4m (195ft) of Siebert formation claystone intersected in Polaris redrill hole PL04A**
- **The Siebert formation hosts large claystone lithium deposits in the region, including:**
  - **American Battery Technology Corporation's (OTCMKTS: ABML) 15.8Mt Lithium Carbonate Equivalent (LCE) Inferred category Tonopah Flats Lithium Clay Deposit[1]**
  - **American Lithium Corporation's (TSX.V: LI) 9.79Mt LCE Measured and Indicated TLC Lithium Project[2]**
- **Samples to be dispatched shortly for assay at ALS Laboratories Reno, with results expected by early to mid-September.**

Astute Metals NL (ASX: ASE) ("ASE", "Astute" or "the Company") is pleased to advise of continued success in its maiden lithium drilling program in Nevada, USA with a thick 109.7m intersection of prospective Siebert Formation claystone – the main prospective host rock for lithium claystone deposits in the region – in its first drill-hole at the Altair Project, and a thicker intersection of claystone at Polaris hole PL04A following a successful re-drill of this hole.

Astute's Executive Chairman, Tony Leibowitz, said:

"Our lithium exploration strategy in North America is beginning to deliver some exciting results, with wide intercepts of the prospective claystone host rocks in the first hole at Altair and the re-drilled hole at Polaris. This is exactly what we wanted to see in the drilling, and provides significant encouragement that our exploration strategy in this highly sought-after district is firmly on track. We look forward to assays and further results from the drilling."

Background

Centred south-west of the township of Tonopah, in the heart of one of the world's most active lithium exploration districts, the Altair and Polaris Projects were strategically staked proximal to outcropping tertiary sedimentary host rock (known locally as the Siebert formation) that is known to host claystone lithium deposits around Nevada.

The Company embarked on its maiden scout drill campaign in late April 2023, exploring for lithium mineralisation within the Siebert formation claystone under alluvial (gravel) cover at the two projects.

Initial drilling was successful, confirming the presence of lithium-bearing claystone at Polaris, before mechanical drill issues resulted in a drilling hiatus[3]. Drilling re-commenced in late June, with the dual objectives of executing a re-drill strategy at Polaris to drill below strong lithium anomalism encountered in the initial drilling and to complete a maiden drilling program at Altair[3].

Drill Results

Since the re-commencement of drilling, the Company has completed its first drill hole at the Altair Project and completed a re-drill of Polaris hole PL04.

Drill hole AL01 intersected 109.7m (360ft) of Siebert formation, including a thick continuous zone of blue-green claystone and clayey gravels, from 71.6 –181.4m (end-of-hole) (235-595ft). This is the thickest intersection of Siebert formation encountered to date by the Company in Nevada.

The re-drill strategy at Polaris has seen drill hole PL04A intersect 59.5m (195ft) of Siebert formation, a significant extension beyond the original PL04 intersection of 27.4m, which ended in low-grade lithium mineralisation of 3.05m (10 feet) grading 140.8ppm lithium[3].

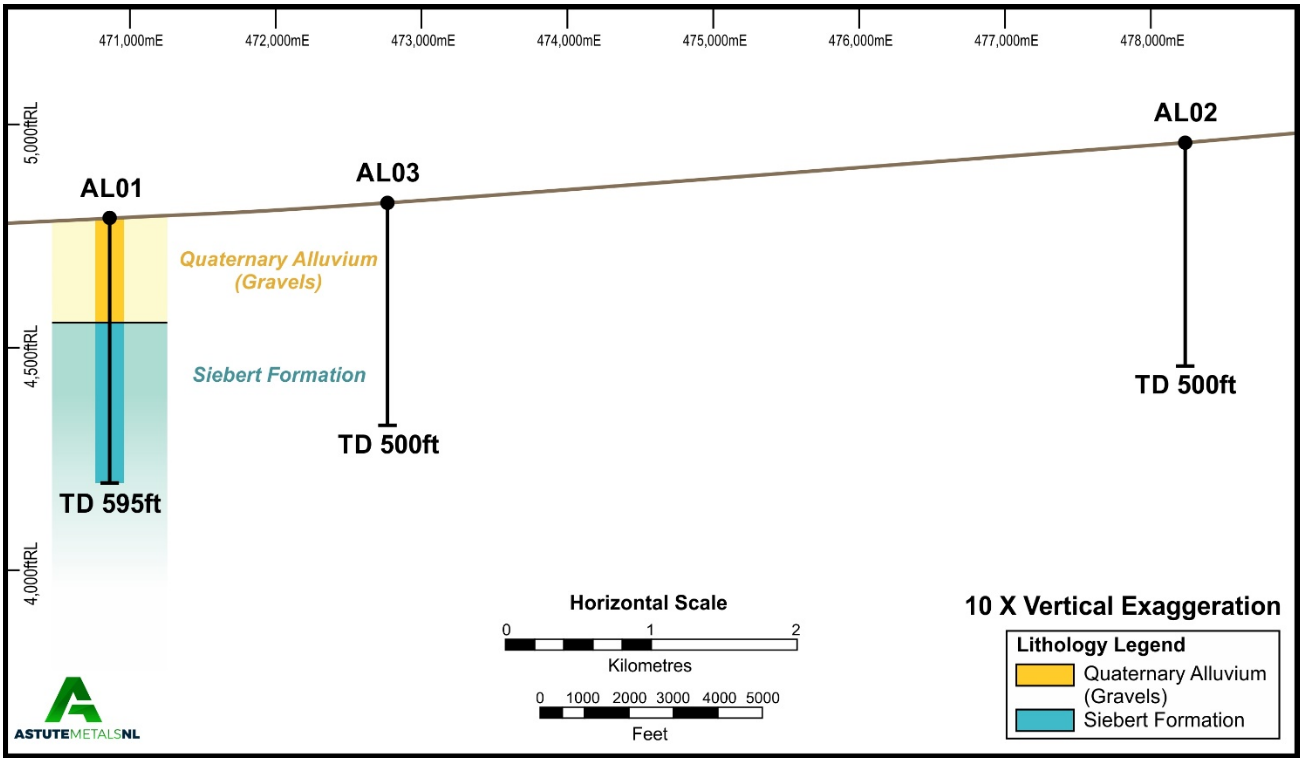

Figure 1. Schematic east-west cross-section of AL01 with remaining Altair planned holes

Interpretation

The thick intersection of Siebert formation at Altair confirms the presence of the prospective lithium host rocks at the project, which has excellent potential for lithium mineralisation.

The Siebert Formation is the local name for lacustrine (lake) sedimentary rocks mapped across parts of Nevada. The formation is known to host two of the largest lithium resources in the United States – the 15.8Mt LCE Tonopah Flats deposit[1] and the 9.79Mt LCE TLC Lithium Project[2].

The deepening of the Claystone intersection in PL04A was designed to test for higher-grade lithium mineralisation beyond the original PL04 intersection of 3.05m (10 feet) grading 140.8ppm lithium at end-of-hole, given the general increase in lithium grade observed toward the end of the hole.

The successful re-drill has significantly extended the claystone encountered in PL04A, highlighting the significant potential in the project area. Furthermore, all drill holes at Polaris and Altair have ended in Siebert formation claystones, indicating further potential beyond the extent of current drilling.

Figure 2. Chip tray samples at 5-foot (Approx. 1.5m) depth intervals from Altair drill hole AL01

CAUTIONARY STATEMENT ON VISUAL ESTIMATES OF MINERALISATION

References in this announcement to visual results are from geological logging of percussion chip samples taken from exploration drilling. The claystone-dominant lithology intersected in drilling is interpreted to be the Siebert formation, a claystone-dominant formation in which claystone-hosted lithium deposits are observed to form elsewhere in the region.

Visual estimates are based on geological logging and thus are preliminary in nature. No attempt is made to predict the lithium content of the intersected claystone and laboratory assays are required to determine the presence of lithium mineralisation. Representative samples from select parts of the intervals that have intersected the interpreted Siebert formation will shortly be dispatched to a third-party Laboratory for analysis, with results expected by early to mid-September.

Next Steps

Samples collected from Altair hole AL01, along with those from the Polaris hole re-drill PL04A, will be dispatched to ALS Laboratories in Reno for analysis, with results expected by mid-September.

Due to the challenging ground conditions encountered during drilling of the initial sites at Polaris and Altair, the Company has decided to demobilise the rig from site and return with a higher-powered rig to drill the remaining holes at Altair. The Company has had initial discussions with the current drill contractor, who has availability for a higher-powered rig in October 2023.

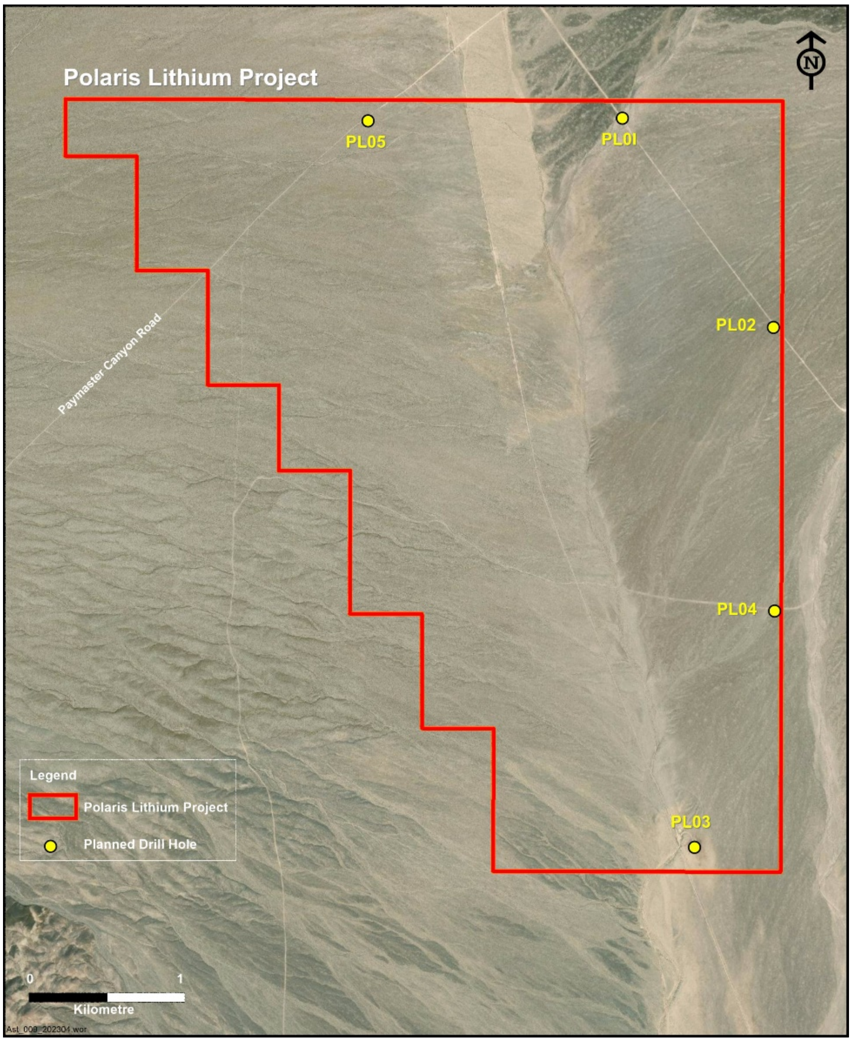

Figure 3. Polaris project drill hole location plan (PL04A located at site PL04)

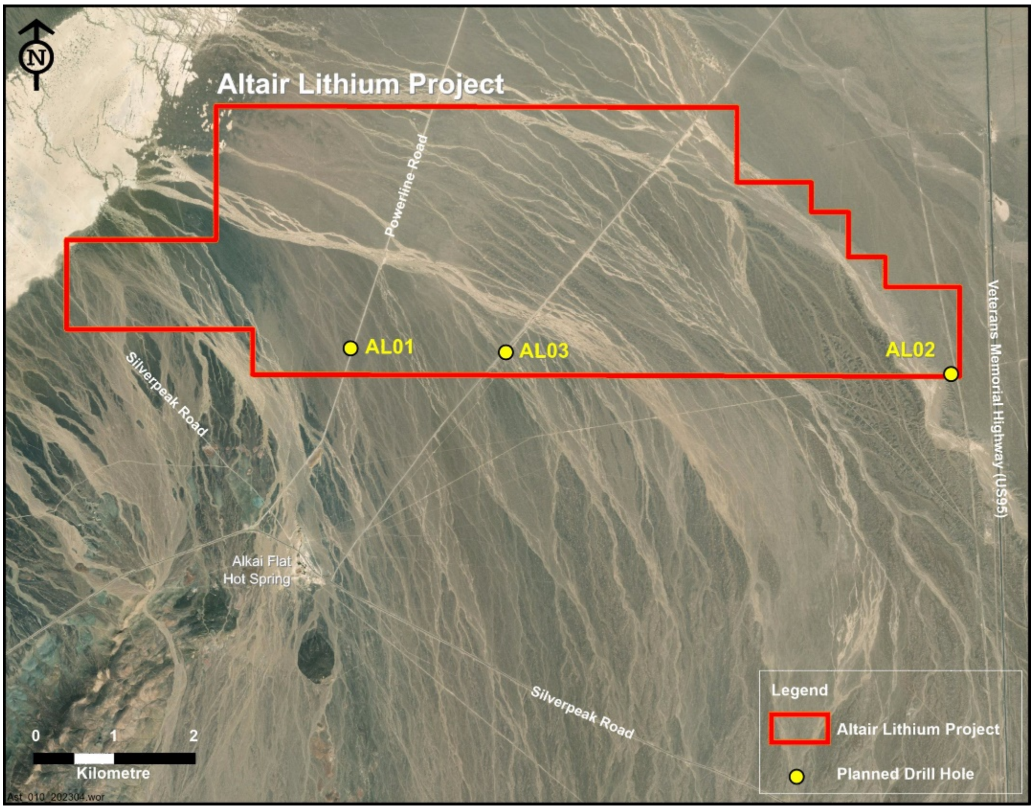

Figure 4. Altair Project drill hole location plan

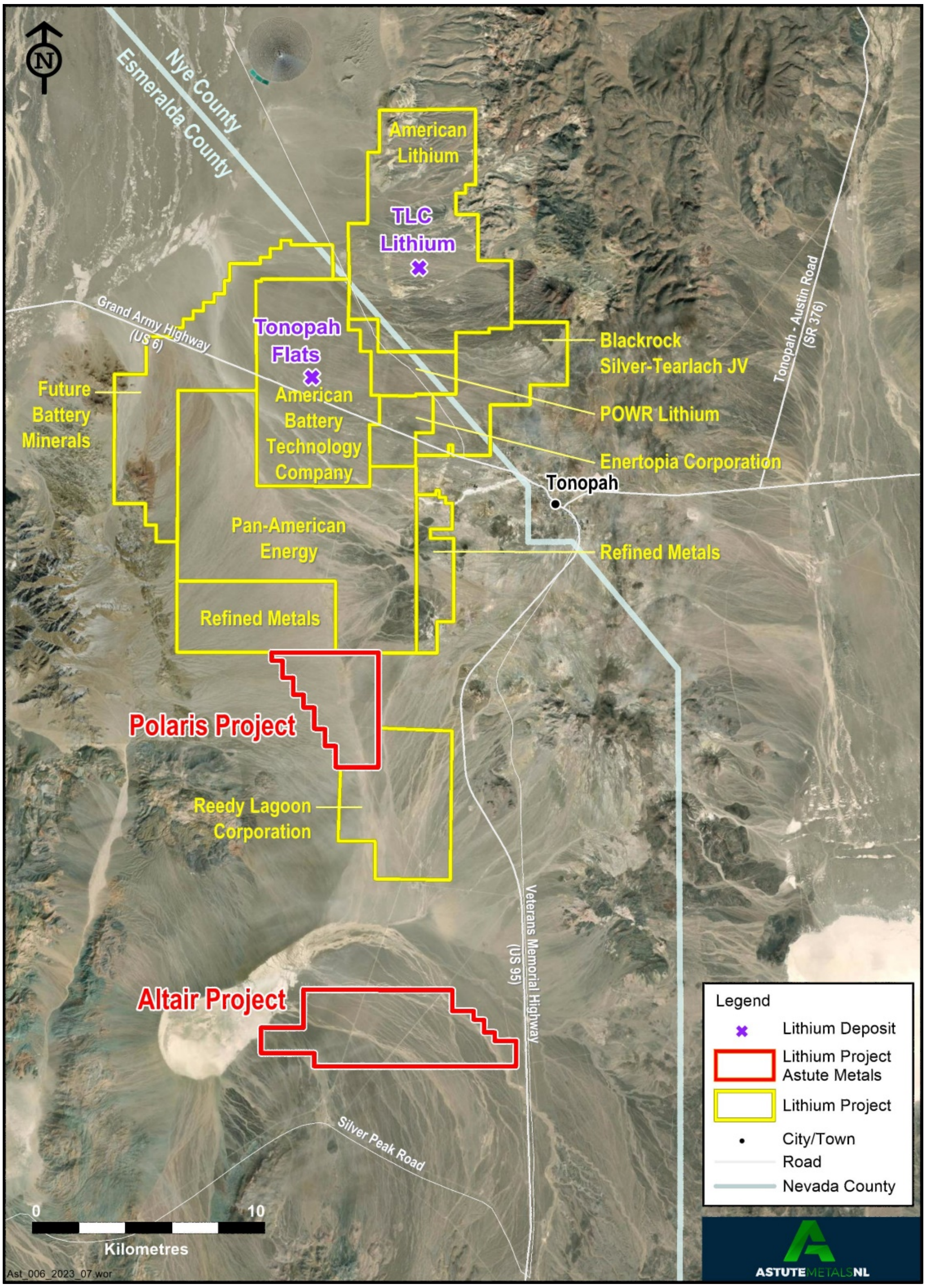

Figure 5. Location of Polaris and Altair Projects, lithium deposits and exploration projects

Hole ID	Easting	Northing	Depth	Comments
AL01	470859	4189179	181.4m (595ft)	
PL04A	472387	4203387	189.0m (620ft)	Re-drill of PL04[3]

Table 1. Drill site locations

1 OTCMKTS: ABML 26 February 2023 'Technical Report Summary For The Tonopah Flats Lithium Project, Esmeralda..'
2 TSX.V: LI 17 March 2023 'Tonopah Lithium Claims project NI 43-101 technical report – Preliminary Economic Assessment'
3 ASX: ARO 27 June 2023 'Strong Lithium anomalism in initial Nevada Assays as drilling resumes'

Authorisation

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

More Information

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Competent Persons

The information in this report that relates to 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 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.

APPENDIX 1 - JORC Code, 2012 Edition – Table 1

ASTUTEMETALSNL

Section 1 - Sampling Techniques and Data

Criteria	JORC Code explanation	Commentary
Sampling techniques	Nature and quality of sampling (eg cut channels, random chips, or specific specialisedindustry standard measurement tools appropriate to the minerals under investigation, such as down hole gamma sondes, or handheldXRF instruments, etc). These examples should not be taken as limiting the broad meaning of sampling. Include reference to measures taken to ensuresample representivity and the appropriate calibration of any measurement tools or systems used. Aspects of the determination of mineralisation that are Material to the Public Report. 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, suchas where there is coarse gold that has inherentsampling problems. Unusual commodities or mineralisation types (eg submarine nodules) may warrant disclosure of detailed information.	4.5" tri-cone (PL04A) and 4¾" reverse circulation (AL01) drilling was undertaken for drill sample collection. Samples were collected on a 5-foot basis in calico bags. Nominal small drill sample was collected for chip tray and sandwich-sized ziplock bags, with all remaining sample collected in calico bag for despatch to external laboratory Samples were air dried on elevated grid mesh until practical to transport Claystone hosted lithium deposits are thought to form as a result of the weathering of lithium-bearing volcanic glass within tertiary-aged tuffaceous lacustrine sediments ofthe mapped Ts3 unit. Inputs of lithium from geothermal sources have also been proposed.
Drilling techniques	Drill type (eg core, reverse circulation, open-holehammer, 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 isoriented and if so, by what method, etc).	4.5" tri-cone (PL04A) and 4¾" reverse circulation (AL01) drilling methods employed. Water was injected to assist with transport ofsample from bit to surface, as required. Drilling was unable to be completed to desired depth in some holes as a function of poor ground conditions
Drill sample recovery	Method of recording and assessing core andchip sample recoveries and results assessed. Measures taken to maximise sample recoveryand ensure representative nature of the samples. Whether a relationship exists between sample recovery and grade and whether sample bias may have occurred due to preferential loss/gainof fine/coarse material.	Sample recovery established by dry sample weights undertaken by independent laboratory prior to sample preparation and analysis Challenging ground conditions arising from the drilling of quaternary alluvial and soft claystones did result in poor recovery in some instances. Instances of poor recovery are not expected tomaterially impact interpretation of results
Logging	Whether core and chip samples have been geologically and geotechnically logged to alevel of detail to support appropriate MineralResource estimation, mining studies and metallurgical studies. Whether logging is qualitative or quantitative innature. Core (or costean, channel, etc) photography. The total length and percentage of the relevantintersections logged.	Drill cuttings for entire hole logged for lithology by contract geologist and company geologists Logging is qualitative Photography of material intersections of claystone taken of relevant chip trays See Appendix 2 for preliminary lithology logging

Criteria	JORC Code explanation	Commentary
Sub-sampling techniques and sample preparation	If core, whether cut or sawn and whether quarter, half or all core taken. If non-core, whether riffled, tube sampled, rotarysplit, etc and whether sampled wet or dry. For all sample types, the nature, quality and appropriateness of the sample preparationtechnique. Quality control procedures adopted for all sub-sampling stages to maximise representivityof samples. Measures taken to ensure that the sampling isrepresentative of the in situ material collected,including for instance results for field duplicate/second-half sampling.	N/A No sample assays reported
Quality of assay data and laboratory tests	Whether sample sizes are appropriate to thegrain size of the material being sampled. The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial ortotal. For geophysical tools, spectrometers, handheldXRF 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 precisionhave been established.	No new sample assays reported. Previously reported assay results referenced in footnotes of this announcement
Verification of sampling and assaying	The verification of significant intersections by either independent or alternative company personnel. The use of twinned holes. Documentation of primary data, data entryprocedures, data verification, data storage (physical and electronic) protocols. Discuss any adjustment to assay data.	Sample intervals to be assigned a unique sample identification number prior to sample despatch Lithium-mineralised claystone Certified Reference Materials (standards), pulp blanks and coarse blanks to be inserted into the sample stream at regular intervals to monitor lab accuracy and potential contamination during sample prep and analytical processes
Location of data points	Accuracy and quality of surveys used to locatedrill holes (collar and down-hole surveys), trenches, mine workings and other locations used in Mineral Resource estimation. Specification of the grid system used. Quality and adequacy of topographic control.	Drill collar locations determined using hand-held GPS with location reported in NAD83 UTM Zone 11. Expected hole location accuracy of +/- 10m No downhole surveys conducted on vertical holes

Criteria	JORC Code explanation	Commentary
Data spacing and distribution	Data spacing for reporting of Exploration Results. Whether the data spacing and distribution is sufficient to establish the degree of geological and grade continuity appropriate for the MineralResource and Ore Reserve estimation procedure(s) and classifications applied. Whether sample compositing has been applied.	Drill spacing is appropriate for early exploration purposes 5-foot sample interval widely adopted as standard practice in air drilling in the USA.
Orientation of data in relation to geological structure	Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type. 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.	Claystone beds are regionally sub-horizontal withshallow dip of <5° although locally this may vary
Sample security	The measures taken to ensure sample security.	Samples delivered from the drill site to Freight agent by Company staff/contractors for delivery to external laboratory
Audits or reviews	The results of any audits or reviews of samplingtechniques and data.	Not applicable

Section 2 - Reporting of Exploration Results

Criteria	JORC Code explanation	Commentary
Mineral tenement and land tenure status	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. 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.	Polaris and Altair Claims held in 100% Astute subsidiary Needles Holdings Inc. Claims located on Federal (BLM) Land Drilling conducted on claims certified by the Bureau of Land Management (BLM)
Exploration done by other parties	Acknowledgment and appraisal of exploration byother parties.	No known lithium exploration conducted on Polaris or Altair areas. Exploration conducted in the region by other explorers referenced in announcement body text
Geology	Deposit type, geological setting and style of mineralisation.	The principal target deposit style is claystone hosted lithium mineralisation. Claystone hosted lithium deposits are thought to form as a result of the weathering of lithium-bearing volcanic glass within tertiary-aged tuffaceous lacustrine sediments of the mapped Ts3 unit. Lacustrine environments formed as a result of extensional tectonic regime that produced 'basin and range' topography observed across the stateof Nevada. Inputs of lithium from geothermal sources havealso been proposed.
Drill hole Information	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: ◦ easting and northing of the drill hole collar ◦ elevation or RL (Reduced Level – elevation above sea level in metres) of the drill hole collar ◦ dip and azimuth of the hole ◦ down hole length and interception depth ◦ hole length. 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 the case.	Drillhole locations and drilled depths are tabulated in body report All holes drilled vertically
Data aggregation methods	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. 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 shownin detail. The assumptions used for any reporting of metal equivalent values should be clearly stated.	N/A

Section 2 Reporting of Exploration Results

Criteria	JORC Code explanation	Commentary
Relationship between mineralisation widths and intercept lengths	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').	Insufficient information available due to early exploration status
Diagrams	Appropriate maps and sections (with scales) andtabulations 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.	Included in ASX announcement
Balanced reporting	Where comprehensive reporting of all Exploration Results is not practicable, representative reporting of both low and high grades and/or widths should be practiced to avoid misleading reporting of Exploration Results.	This release describes all relevant information
Other substantive exploration data	Other exploration data, if meaningful and material, should be reported including (but not limited to): geological observations; geophysicalsurvey 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.	This release describes all relevant information
Further work	The nature and scale of planned further work (eg tests for lateral extensions or depth extensions or large-scale step-out drilling). Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive.	Drill results arising from the current campaign will dictate whether further work is warranted at the Polaris and Altair project areas

APPENDIX 2 – Polaris Aircore Drilling Preliminary Lithology Logging

Hole ID	From	To	Rock Formation	Lithology	Comments
AL01	0	235	Unconsolidated	Alluvium	Pebbly, rounded to angular and polymictic
AL01	235	275	Siebert	Clayey Gravel	Variable light orange-brown clay content
AL01	275	335	Siebert	Claystone	Tan claystone with minor gravel
AL01	335	350	Siebert	Claystone	Light olive brown claystone
AL01	350	370	Siebert	Claystone	Bluey green claystone
AL01	370	385	Siebert	Clayey Gravel	Bluey green claystone in part
AL01	385	395	Siebert	Claystone	Bluey green claystone with gravel
AL01	395	405	Siebert	Clayey Gravel	Bluey green claystone in part
AL01	405	445	Siebert	Claystone	Bluey green claystone with gravel
AL01	445	475	Siebert	Clayey Gravel	Bluey green claystone in part
AL01	475	490	Siebert	Claystone	Bluey green claystone with minor gravel
AL01	490	500	Siebert	Claystone	Bluey green claystone
AL01	500	535	Siebert	Claystone	Bluey green claystone with minor gravel
AL01	535	585	Siebert	Claystone	Light bluey green claystone
AL01	585	595	Siebert	Claystone	Dark grey green claystone
PL04A	0	425	Unconsolidated	Alluvium	Pebbly to sandy yellowish brown and polymictic
PL04A	425	430	Siebert	Claystone	Olive brown silty claystone
PL04A	430	485	Siebert	Gravel	Gravel, brown. Clayey in part
PL04A	485	500	Siebert	Claystone	Olive brown silty to sandy claystone
PL04A	500	510	Siebert	Claystone	Medium brown
PL04A	510	520	Siebert	Claystone	Light tan brown
PL04A	520	540	Siebert	Claystone	Bluey green claystone
PL04A	540	545	Siebert	Claystone	Olive brown
PL04A	545	555	Siebert	Clayey Gravel	Medium olive brown. Clayey in part
PL04A	555	560	Siebert	Claystone	Olive brown
PL04A	560	585	Siebert	Gravel	Grey, tan, clayey in part
PL04A	585	595	Siebert	Claystone	Olive brown
PL04A	595	620	Siebert	Gravel	Light brown. Clayey in part