

15 May 2023

SIGNIFICANT ZONES OF PROSPECTIVE LITHIUM CLAYSTONE HOST ROCKS INTERSECTED IN INITIAL DRILLING AT POLARIS PROJECT, NEVADA USA

Prospective claystone host rocks encountered in three drill-holes – assays awaited

Key Highlights

- Siebert Formation claystone intersected in current drilling at Polaris.
- Polaris drill-hole PL01 intersected 225ft (68.6m) of Siebert Formation from 420 feet.
- Prospective claystone host intersected in three of the four holes drilled to date.
- 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 Deposit¹.
 - American Lithium Corporation's (TSX.V: LI) 9.79Mt LCE Measured and Indicated category TLC Lithium Project⁵.
- Drilling to date has not yet intersected the base of the Siebert Formation, highlighting additional potential at depth.

Astro Resources NL (ASX: ARO) ("**ARO**", "**Astro**" or "**the Company**") is pleased to advise that it has made a strong start to its maiden lithium drilling program in Nevada, USA with significant intervals of prospective Siebert Formation claystone – the main prospective host rock for lithium claystone deposits in the district – intersected in its initial drill-holes.

Of the four air-core holes drilled to date, three have intersected the regionally significant lithiumbearing host rocks and all of these holes have ended in the Siebert Formation, indicating further potential for clays beyond the depth of current drilling.

Key intersections to date in the campaign are as follows:

- PL01 intersected 225 feet (68.6m) of Siebert Formation from 420 feet (128m) to end-of-hole.
- PL04 intersected 90 feet (27.4m) of Siebert Formation from 425 feet (129.5m) to end-of-hole.
- PL02 intersected 15 feet (4.6m) of Siebert Formation from 495 feet (150.9m) to end-of-hole.

Astro Executive Chairman, Tony Leibowitz, said:

"This is a very pleasing start to our first lithium drilling campaign in Nevada. Despite some challenging drilling conditions, which the team has done a great job in overcoming, the first few holes have intersected the regionally important claystone host rocks for lithium that the technical team set out to find. This shows that we have all the right ingredients to start work to define a significant lithium resource in Nevada.

"This marks a successful start to our expanded lithium exploration strategy in North America, and we are looking forward to reporting further results from this exciting program in the weeks ahead."



Figure 1. Schematic cross-section of Polaris holes drilled to date and intersected Siebert formation host rocks.

Siebert Formation

The Miocene-aged Siebert Formation, the local name for the Ts3 sedimentary rocks mapped across Nevada, is composed of tuffaceous, fine-grained, calcareous lacustrine (lake) sediments. Internal thin gravel beds are observed within the broader claystone-dominant sedimentary package.

Felsic tuffs are thought to be the principal source of lithium mineralisation in the Siebert, as lithium is hosted in volcanic glass within the tuffs, which readily weathers to clay minerals.

The Siebert Formation is known to host two of the largest lithium resources in the United States – the 15.8Mt LCE Tonopah Flats deposit and the 9.79Mt LCE TLC Lithium project.

As the Formation is known to host large lithium deposits, it presents as a compelling exploration target in the Company's hunt for lithium mineralisation and represents the basis and key technical target for the current drilling campaign.

astro resources nl



Figure 2. Chip trays of 5-foot intervals of Siebert Formation claystones intersected in hole PL01 from 425-645 feet (end-of-hole).



Figure 3. Photograph of air core drill rig set up over drill hole PL04.





Figure 4. Location of the newly staked Polaris and Altair Projects, showing select neighbouring claim holders, spatial inferred mineral resource extents, planned drilling and recent exploration drill results reported.

astro resources nl

Recent Exploration Activity in the Region

The commencement of drilling at Polaris follows hot on the heels of significant exploration campaigns undertaken by other explorers in the broader Big Smoky Valley region over the past six months, with drilling campaigns conducted by Future Battery Minerals (ASX: FBM)³, Tearlach Resources Limited (TSX: TEA)⁷ and Pan-American Energy (OTCMKTS: PAANF) which has a drill campaign currently underway².

Recently reported results include Future Battery Minerals intersecting lithium claystone mineralisation of 109.7m @ 766ppm Li from 135.6m³, and Pan-American Energy intersecting 279.2m of prospective Siebert Formation claystones in drilling on a project to the immediate north of Astro's Polaris Project².

The significant level of exploration activity, and the positive results being reported by other explorers in the vicinity, is a testament to the highly prospective nature of the region and, by extension, the inherent potential of Astro's Polaris and Altair Projects.

Polaris and Altair Projects

Astro's projects are located in the southern extent of the Big Smoky Valley, south-west of the township of Tonopah, in the heart of one of the world's most active lithium exploration districts.

The Polaris and Altair Projects are located proximal to outcropping tertiary sedimentary host rock units (the Ts3) that are known to host claystone lithium deposits around Nevada. The project locations were staked following a systematic review of regional open file data, such as mapped geology, topography, stream sediment geochemistry, land administration and an assessment of suitable claim-free areas. This same review resulted in the identification of a number of prospective areas around the state of Nevada, that the Company is now in the process of evaluating for potential staking.

Nevada hosts a number of 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 district include Ioneer's (ASX: INR) Rhyolite Ridge Project⁴ and Lithium America's Thacker Pass deposit, the largest lithium deposit in North America⁵.

Astro Drill Campaign

The Company's maiden air-core drill campaign commenced in late April at Polaris, where four holes have been drilled to date. Drilling difficulties resulted in one hole being abandoned at 425 feet, above the interpreted surface of the Siebert Formation. Holes PL02 and PL04 were only able to intersect narrow intersections due to rig limitations. The Company is considering a re-drill strategy of one or more of these holes.

Drill-hole PL01 intersected 225 feet (68.6m) of Siebert formation, dominated by greenish claystone, and ended in the formation. The drill rig has now mobilised to Altair project planned hole AL01, located south of the Polaris project. One batch of samples from the drilling campaign has been despatched to ALS Laboratories in Reno for analysis. Assay results are expected for the initial batch approximately in six weeks.

Plan ID	East (NAD83)	North (NAD83)	Depth (feet)	Comments
PL01	471408	4206540	645	
PL02	472375	4205201	510	
PL03	471870	4201873	425	Poor ground - ended early
PL04	472382	4203385	515	
PL05	469782	4206523	500	Not yet drilled
AL01	470861	4189184	500	In Progress
AL02	478236	4188869	500	Not yet drilled
AL03	472767	4189133	500	Not yet drilled

Table 1. Drill hole details.





Figure 5. Hole location map – Polaris Project.



Figure 6. Hole location map – Altair Project.





Figure 7. Astro Project Locations and major lithium resources of Nevada.

¹ OTCMKTS: ABML 26 February 2023 'Technical Report Summary For The Tonopah Flats Lithium Project, Esmeralda..'

² OTCMKTS: PAANF 22 March 2023 'Pan American Energy Provides a Midway Update on the Horizon Lithium Phase One Drill Program' ³ ASX: FBM 13 April 2023 'High-grade lithium claystone discovered in Nevada'

⁴ASX: INR 30 April 2020 'Ioneer Delivers Definitive Feasibility Study.'

⁵TSX: LAC 31 January 2023 'GM and Lithium Americas top Develop US-sourced Lithium Production'

⁶ TSX.V.LI 17 March 2023 'Tonopah Lithium Claims project NI 43-101 technical report – Preliminary Economic Assessment'

⁷TSX: TEA 6 April 2023 'Tearlach Completes Phase 1 Drill Program at Gabriel Lithium Project in Nevada..'

Authorisation

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

More Information

Tony Leibowitz

Executive Chairman tony.leibowitz@aro.com.au +61 (0) 410 687 910 Nicholas Read Media & Investor Relations nicholas@readcorporate.com.au +61 (0) 419 929 046





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 Astro Resources NL. 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

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 specialised industry standard measurement tools appropriate to the minerals under investigation, such as down hole gamma sondes, or handheld XRF instruments, etc). These examples should not be taken as limiting the broad meaning of sampling. Include reference to measures taken to ensure sample 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, such as where there is coarse gold that has inherent sampling problems. Unusual commodities or mineralisation types (eg submarine nodules) may warrant disclosure of detailed information. 	3.2" aircore 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 of the mapped Ts3 unit. Inputs of lithium from geothermal sources have also been proposed.
Drilling techniques	 Drill type (eg core, reverse circulation, open-hole hammer, rotary air blast, auger, Bangka, sonic, etc) and details (eg core diameter, triple or standard) 	Air core drill methods employed with a 3.2" bit at both Polaris and Altair.
	and details (eg core diameter, triple or standard tube, depth of diamond tails, face-sampling bit or other type, whether core is oriented and if so, by what method, etc).	Water was injected to assist with transport of sample 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 and chip sample recoveries and results assessed. Measures taken to maximise sample recovery and 	Sample recovery established by dry sample weights undertaken by independent laboratory prior to sample preparation and analysis
	 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/gain of 	Challenging ground conditions arising from the drilling of quaternary alluvial and soft claystones did result in poor recovery in some instances.
	fine/coarse material.	Instances of poor recovery are not expected to materially impact interpretation of results
Logging	 Whether core and chip samples have been geologically and geotechnically logged to a level of detail to support appropriate Mineral Resource 	Drill cuttings for entire hole logged for lithology by contract geologist, with oversight by Company geologists
	estimation, mining studies and metallurgical	Logging is largely qualitative
	 studies. Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc) photography. 	Photography of material intersections of claystone taken of relevant chip trays
	 The total length and percentage of the relevant intersections logged. 	
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, rotary split, etc and whether sampled wet or dry. For all sample types, the nature, quality and appropriateness of the sample preparation technique. Quality control procedures adopted for all subsampling stages to maximise representivity of samples. Measures taken to ensure that the sampling is representative of the in situ material collected, including for instance results for field duplicate/second-half sampling. Whether sample sizes are appropriate to the grain size of the material being sampled. 	N/A No sample assays reported



Quality of assay data and laboratory tests	 The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total. For geophysical tools, spectrometers, handheld XRF instruments, etc, the parameters used in determining the analysis including instrument make and model, reading times, calibrations factors applied and their derivation, etc. Nature of quality control procedures adopted (eg standards, blanks, duplicates, external laboratory checks) and whether acceptable levels of accuracy (ie lack of bias) and precision have been established. 	N/A No sample assays reported
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 entry procedures, 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 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 locate drill 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 location determined using hand-held GPS with location reported in NAD83 UTM Zone 11 No downhole surveys conducted on vertical holes
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 Mineral Resource 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 with shallow 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 sampling techniques and data.	Not applicable



Section 2 Reporting of Exploration Results

Criteria	JORC Code explanation	Commentary
<i>Mineral tenement and land tenure status</i>	 Type, reference name/number, location and ownership including agreements or material issues with third parties such as joint ventures, partnerships, overriding royalties, native title interests, historical sites, wilderness or national park and environmental settings. 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% Astro 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 by other 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 state of Nevada
		Inputs of lithium from geothermal sources have also been proposed.
Drill hole Information	 A summary of all information material to the understanding of the exploration 	Drillhole locations and depths/planned depths tabulated in body report
	 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. 	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 shown in detail. The assumptions used for any reporting of metal equivalent values should be clearly stated. 	N/A



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) and tabulations of intercepts should be included for any significant discovery being reported These should include, but not be limited to a plan view of drill hole collar locations and appropriate sectional views. 	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; geophysical survey results; geochemical survey results; bulk samples – size and method of treatment; metallurgical test results; bulk density, groundwater, geotechnical and rock characteristics; potential deleterious or contaminating substances.	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

