ASTUTEMETALSNL

9 December 2024

POSITIVE INITIAL METALLURGICAL RESULTS FROM RED MOUNTAIN LITHIUM PROJECT, USA

Strong lithium leachability results enhance project potential

Key Highlights

- **Initial leachability and mineralogy test-work completed for six RC samples from drill-holes completed across the Red Mountain Project area.**
- **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**
- **Leaching test-work shows that lithium is readily leachable from the Red Mountain host rocks.**
- **Increasing lithium grades observed with increasing clay content.**
- **Assay results from the October diamond drilling program expected in the coming weeks.**

Astute Metals NL (ASX: ASE) ("ASE", "Astute" or "the Company") is pleased to report results from the initial metallurgical test-work completed at its 100%-owned Red Mountain Lithium Project in Nevada, USA. The early-stage test-work was primarily designed to test for 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[7]. Background to the Red Mountain Project is on page seven of this ASX Release.

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.

Astute Chairman, Tony Leibowitz, said:

"This is another very encouraging step in our journey to unlock the potential of the Red Mountain clay-hosted lithium discovery. Achieving high leachability results of up to 98% is a great outcome which shows that we can successfully liberate lithium from the clays into a pregnant leach solution. While further work is required to optimize the leach conditions and the other steps in the process towards producing a battery-grade lithium product, this is a very important piece of baseline work that sets a strong foundation for us moving forward. We are now looking forward to receiving assays results from our recent diamond drilling program as the next key catalyst for the Red Mountain Project."

Figure 1. Red Mountain metallurgical samples at Kappes Cassiday & 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, Cassiday & Associates (KCA) for scoping-level lithium leach test-work (Figure 1). 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.

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 (Figure 2).

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:

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 1. Metallurgical sample details

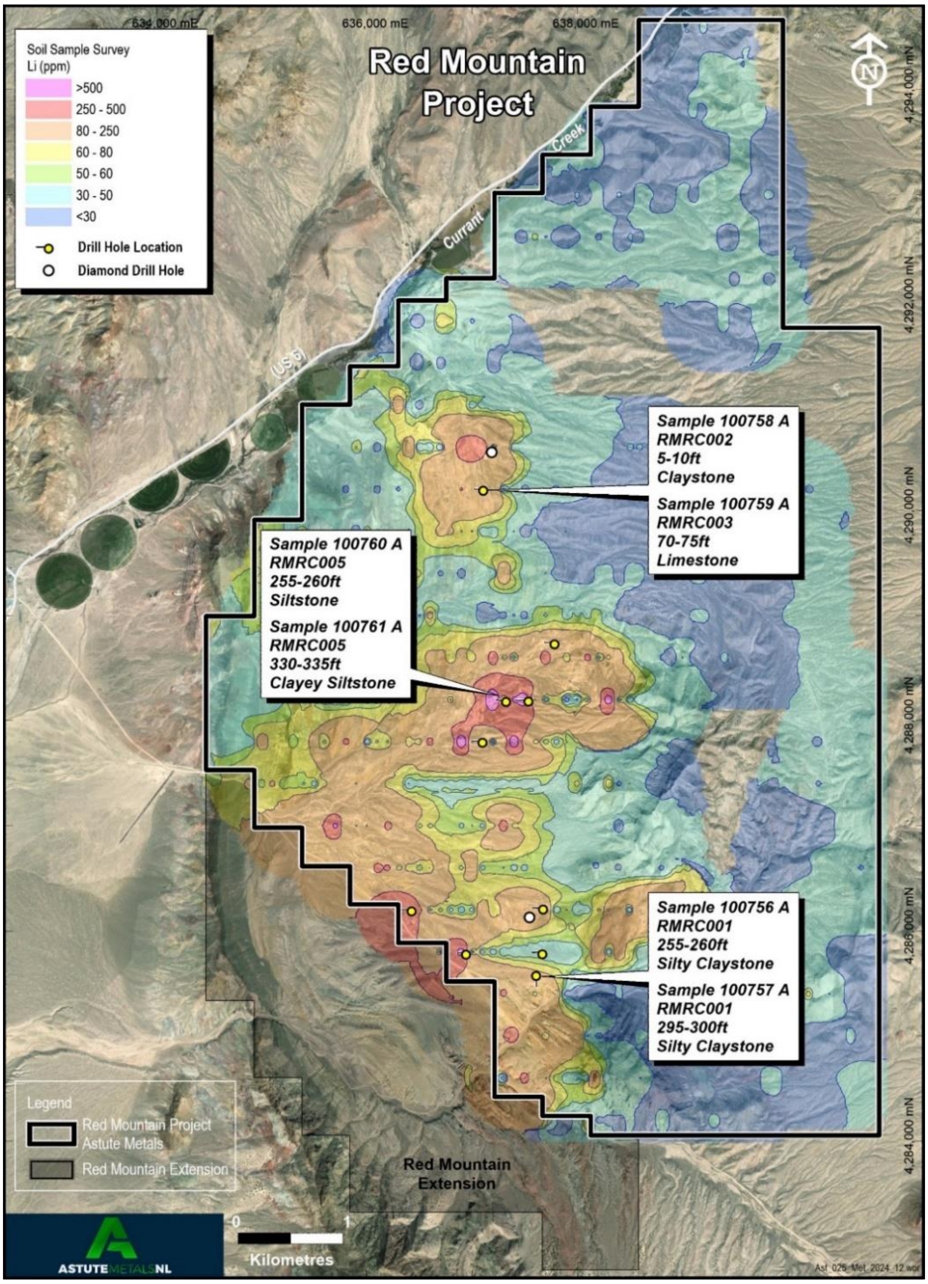

Figure 2. Metallurgical sample location plan.

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 2. Drill-hole collar details from which metallurgical samples were selected

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 3.

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.

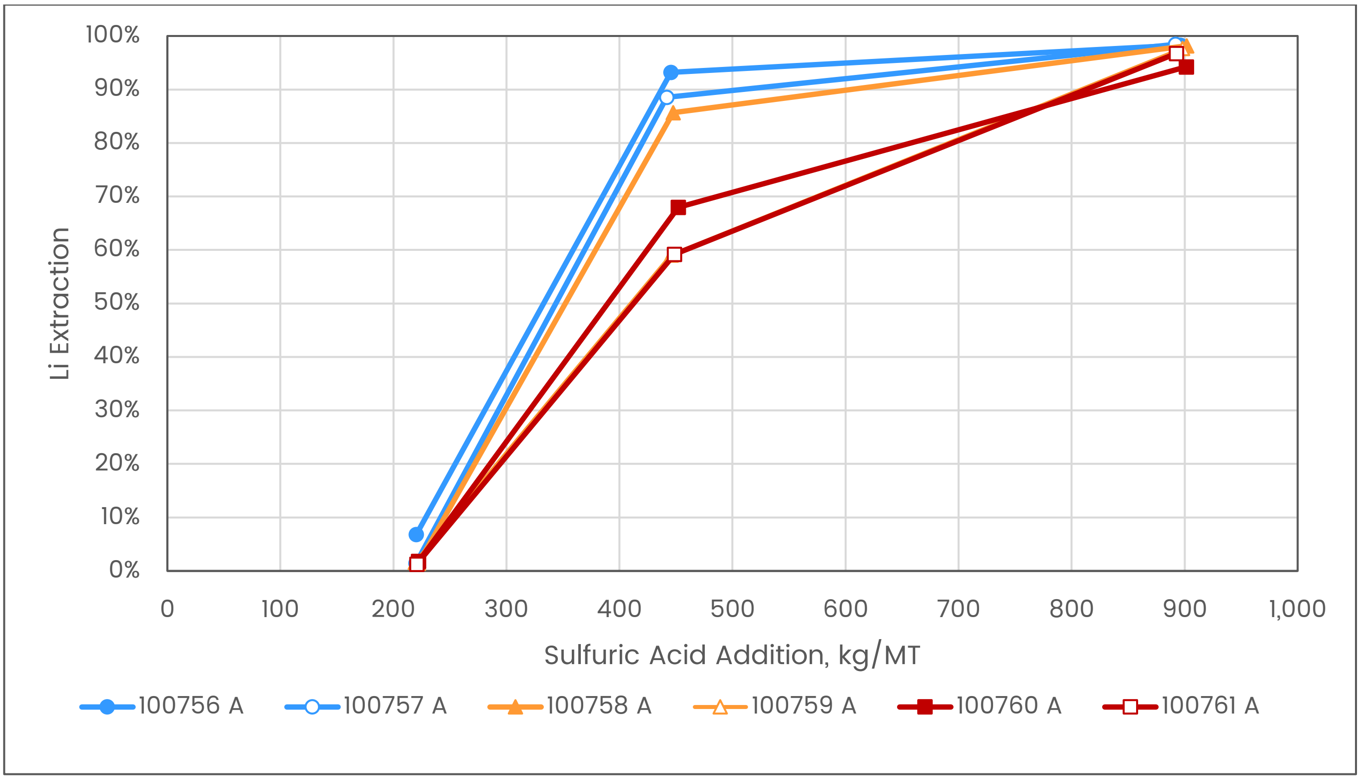

Figure 3. Lithium leachability by acid concentration.

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 4.

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.

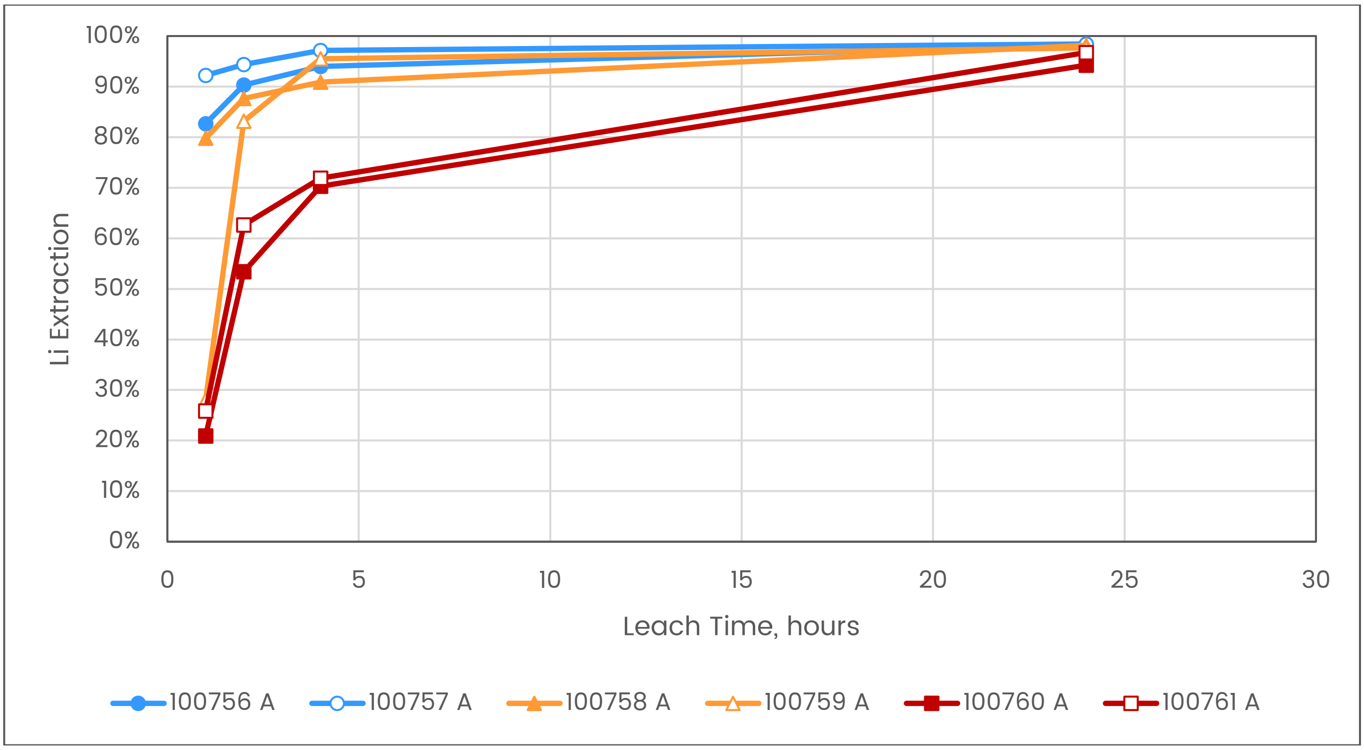

Figure 4. Lithium leachability by time.

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 5).

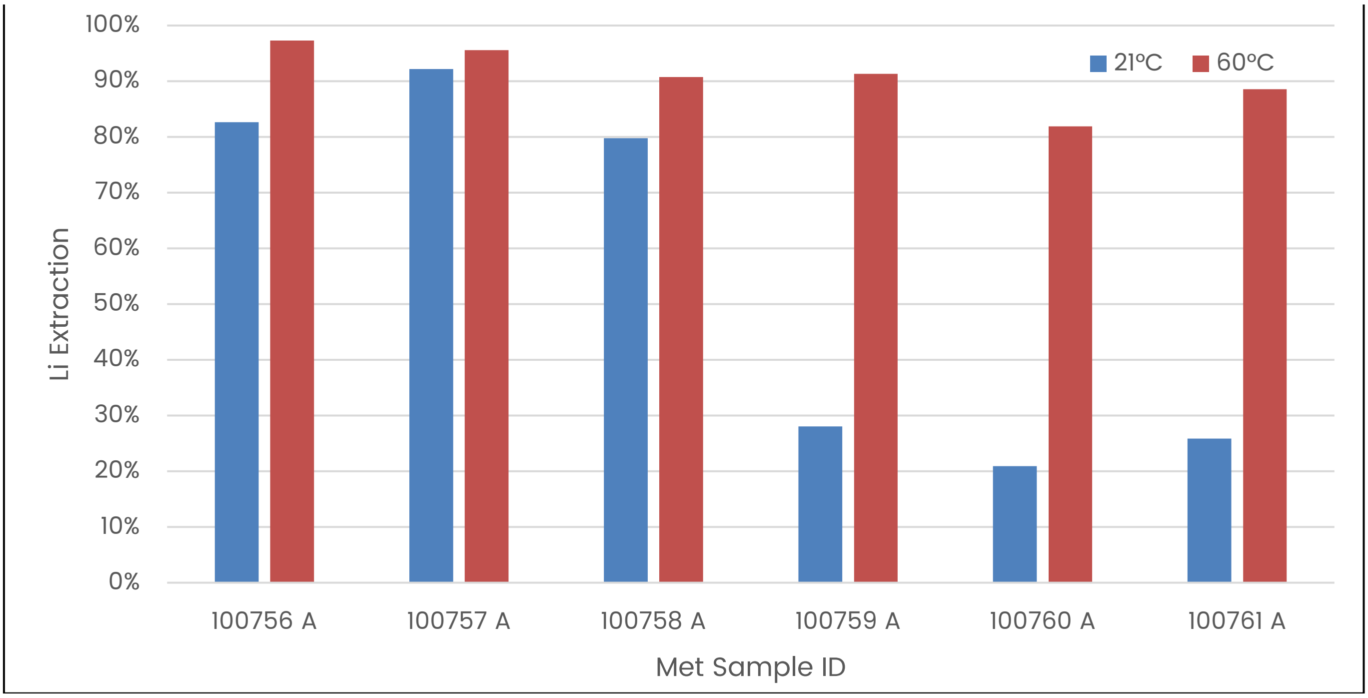

Figure 5. Lithium leachability by temperature.

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 6). 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.

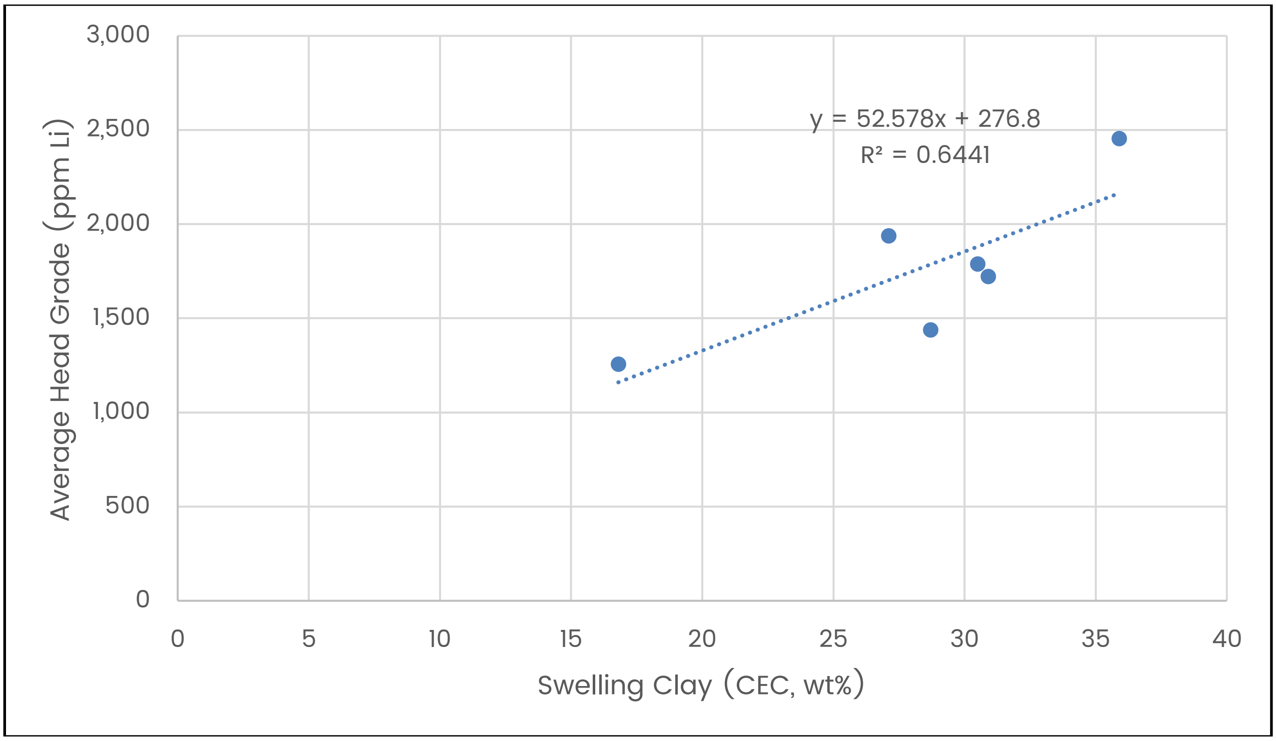

Figure 6. Clay content and average head grades for metallurgical samples.

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: NILI) Nevada North project, which had lower lithium leachability extraction (%) in acid concentration tests[7].

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 expecting assay results for the two October 2024 diamond drill-holes completed at Red Mountain in the coming weeks. Subject to the results received, the remaining drill core is available for use in future metallurgical test-work aimed at de-risking processing characteristics of the Project.

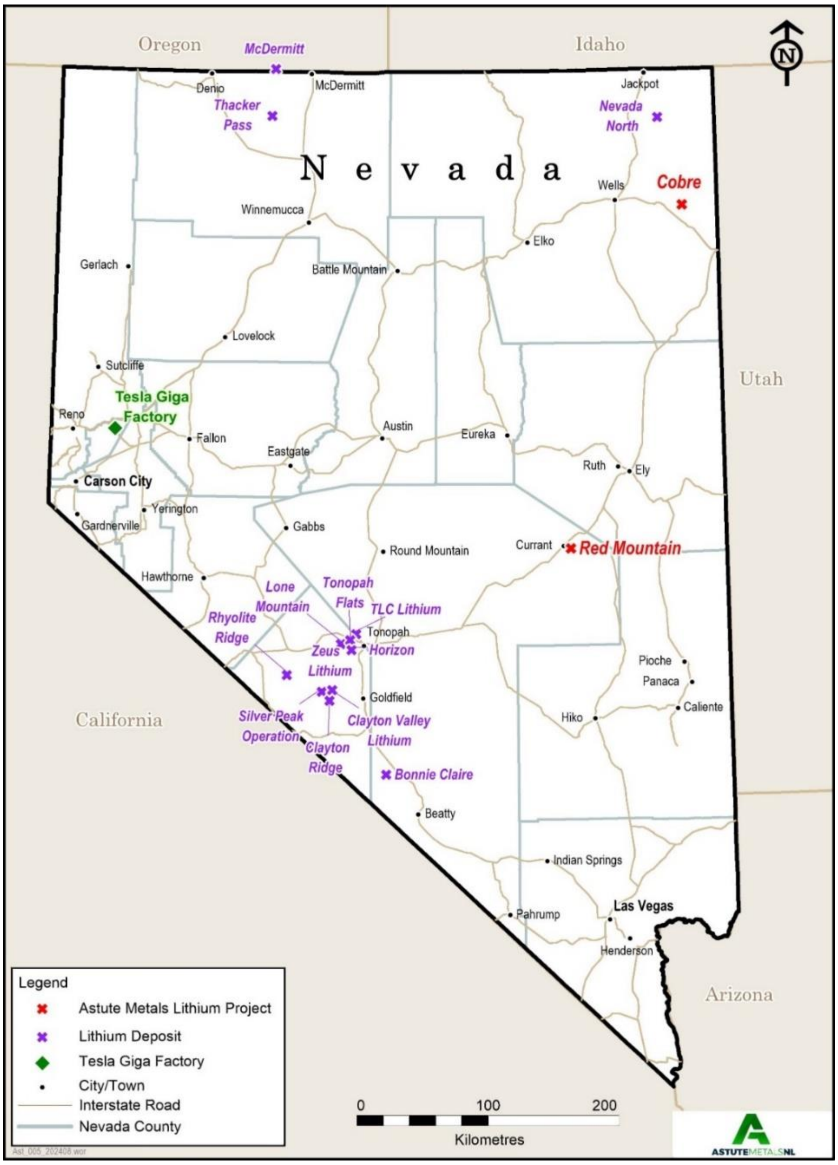

Figure 7. Location of Astute Lithium Projects and Nevada lithium deposits.

Background

Located immediately adjacent to Route 6 near the township of Currant in central-eastern Nevada, the Red Mountain Project was staked 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 (see Figure 7) such as Lithium Americas' (NYSE: LAC) 16.1Mt LCE Thacker Pass Project[2], the American Battery Technology Corporation's (OTCMKTS: ABML) 16.9Mt LCE Tonopah Flats deposit[3] and the American Lithium (TSX.V: LI) 10.7Mt LCE TLC Lithium Project[4].

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[1,6].

The Company's maiden drill campaign at Red Mountain comprised 11 RC 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[5]. Two diamond drill holes have been drilled at the project for which assays are pending[8].

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

1 ASX: ASE 8 July 2024 'High-Grade Rock Chip Assays at Red Mountain Project'
2 NYSE: LAC 2 November 2022 Feasibility Study NI 43-101 Technical Report for the Thacker Pass Project
3 NASDAQ: ABAT Updated Resource Estimate and Initial Assessment… 21 December 2023..'
4 TSX.V: LI 17 March 2023 'Tonopah Lithium Claims project NI 43-101 technical report – Preliminary Economic Assessment'
5 ASX: ASE 7 August 2024 'Receipt of Final Assays for the Red Mountain Project'
6 ASX: ASE 20 November 2023 'Large Lithium Soil Anomalies Discovered at Red Mountain'
7 TSX: NILI April 5 2023 Surge Battery Metals Nevada North Lithium Project NI 43-101 Report
8 ASX: ASE 10 October 2024 'Diamond drilling Commences at the Red Mountain Lithium Project'

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.

Section 1 - Sampling Techniques and Data

Criteria	JORC Code explanation	Commentary
Sampling techniques	Nature and quality of sampling (e.g. 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 thatare Material to the Public Report. In cases where 'industry standard' work has been done this would be relatively simple (e.g. '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 (e.g. submarine nodules) may warrant disclosure of detailed information.	5.5" reverse circulation drilling was undertaken for drill sample collection. Samples were collected on a 5-foot basis in calico bags, with a 50% split retained from a rotary cone splitter for initial lab assay. The remaining 50% was retained, and formed the basis for sample material for metallurgical testwork as discussed in this release. Samples were air dried on elevated grid meshuntil 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 (e.g. core, reverse circulation, open-holehammer, rotary air blast, auger, Bangka, sonic, etc.) and details (e.g. 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.).	5.5" reverse circulation drilling methods employed. Water was injected to assist with transport of sample from bit to surface, as required.
Drill sample recovery	Method of recording and assessing core and chip sample recoveries and results assessed. Measures taken to maximise sample recovery and 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 Some instances of poor recovery near surface. Instances of poor recovery are not expected to materially impact interpretation of results KCA undertook sample weights on receipt
Logging	Whether core and chip samples have been geologically and geotechnically logged to a level of detail to support appropriate Mineral Resource estimation, mining studies and metallurgical studies. Whether logging is qualitative or quantitative 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 company geologists Logging is qualitative Photography of material intersections ofclaystone taken of relevant chip trays Photography of metallurgical samples undertaken by KCA on receipt

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, rotary split, etc. and whether sampled wet or dry. For all sample types, the nature, quality and appropriateness of the sample preparation technique. Quality control procedures adopted for all sub-sampling stages to maximise representivityof 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.	Samples, once received by KCA, were crushed to 100% passing 6.3mm to break up lumps within the sample. A 1,500g sub-sample was split out for testwork as described in this announcement. The 1,500g portions were air-dried overnight and re-weighed. Dried material was pulverized to 100% passing 0.106mm. This pulverized material were split to yield portions for head assays and acid leach testing, with a separate sample split out for XRD and CEC analysis at FL Smidth
Quality of assay data and laboratory tests	Whether sample sizes are appropriate to the grain 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 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 (e.g. standards, blanks, duplicates, external laboratory checks) and whether acceptable levels of accuracy (i.e. lack of bias) and precisionhave been established.	Head analyses were performed using a 4-acid digest and ICP-OES for individual elements. Free acid was determined through titration to pH 3 of a solution sample, in a methanol solution using sodium hydroxide. The methanol solution contained 0.5 molar Me-MgCl2 to reduce the effects of hydrolysable cations such as Fe3+, Al3+ and Cu2+. The pH endpoint was measured using a calibrated pH meter. Acid consumption was calculated as the difference between the acid added and the free acid measured in the final pregnant leach solution plus wash. Reagent grade concentrated acid was utilized for leach tests. The effective concentration of the acid was measured using titration as per above.
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, when received by KCA, were assigned a unique KCA sample identification number that was recorded against the sample ID provided by Astute Metals.
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 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 drill holes, with drill rigs lined up by compass and clino at start of hole

Criteria	JORC Code explanation	Commentary
Data spacing anddistribution	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.
Orientationof 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 thedeposit 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 shallow-dipping at ~20° to the east although locally this may vary across the Project with some evidence of faulting and potential folding
Samplesecurity	The measures taken to ensure sample security.	Samples stored at secured yard and shed located in township of Currant until freighted by UPS to the KCA lab at Reno, NV
Audits orreviews	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 nationalpark 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.	Red Mountain 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 by other parties.	No known previous lithium exploration conducted at Red Mountain Exploration conducted elsewhere in Nevada 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 have also 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, orientations and drilled depths are tabulated in body report
Data aggregation methods	In reporting Exploration Results, weighting averaging techniques, maximum and/or minimum grade truncations (e.g. 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.	Intersections, where quoted are weighted by length. Lengths originally recorded in feet are quoted to the nearest 10cm. Rounding is conducted to 3 significant figures A 500ppm Li cut-off was used to quote headline intersections, with allowance for 5ft of internal dilution by lower grade material. Low grade mineralisation (300-500ppm Li) is present outside of the quoted intersections Intersections are quoted in both lithium ppm and as wt% Lithium Carbonate Equivalent (LCE). LCE is calculated as LCE = Li (ppm) x 5.323 / 10,000, as per industry conventions.

Criteria	JORC Code explanation	Commentary
Relationship between mineralisatio n 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 (e.g. '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 (e.g. 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 drillingareas, provided this information is not commercially sensitive.	Drill results demonstrate further work at the Red Mountain project is warranted.

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Red Mountain Project
Summary of Received Weight and Moisture Content

KCA Sample No.	Client ID	Interval	Description	Rec'd Wt., grams	Tot As-Rec'd Moisture
100756 A	701854	255-260	701854 (255-260)	7952	2.2%
100757 A	701863	295-300	701863 (295-300)	6410	2.5%
100758 A	701952	5-10	701952 (5-10)	5521	2.3%
100759 A	702054	70-75	702054 (70-75)	2003	2.3%
100760 A	702274	255-260	702274 (255-260)	8311	1.2%
100761 A	702290	330-335	702290 (330-335)	7313	1.8%

Red Mountain Project
Summary of Lithium Head Analyses

Description		701854 (255-260)	701863 (295-300)	701952 (5-10)	702054 (70-75)	702274 (255-260)	702290 (330-335)
KCA Sample No.		100756 A	100757 A	100758 A	100759 A	100760 A	100761 A
Test	Method	Li, mg/kg	Li, mg/kg	Li, mg/kg	Li, mg/kg	Li, mg/kg	Li, mg/kg
HA	Direct Assay	1,743	2,326	1,658	1,400	1,205	1,896
HSA	Wt. Avg. Assay	1,726	2,292	1,652	1,372	1,122	1,822
ALT 1	Calc. Head	1,710	2,394	1,690	1,433	1,286	1,937
ALT 2	Calc. Head	1,832	2,652	1,812	1,487	1,310	1,995
ALT 3	Calc. Head	1,783	2,513	1,692	1,421	1,263	1,893
ALT 4	Calc. Head	1,771	2,399	1,731	1,416	1,225	1,969
ALT 5	Calc. Head	1,818	2,440	1,715	1,431	1,241	1,934
ALT 6	Calc. Head	1,764	2,468	1,693	1,435	1,234	1,923
ALT 7	Calc. Head	1,941	2,599	1,846	1,549	1,419	2,067
	Average	1,788	2,454	1,721	1,438	1,256	1,937
	RSD	4%	5%	4%	4%	6%	4%

Red Mountain Project
Scoping Sulfuric Acid Leach Testing
Pulverized Material, Target 100% passing 0.106 millimeters
Summary of Acid Concentration Testing

Description	KCA Test No.	Calc. Head Li, mg/kg	Li Ext., %	Leach Time, hrs	Leach Temp., °C	H_2SO_4 Addition, kg/MT	H_2SO_4 Initial Conc., g/L	Acid Consump., kg/MT
701854 (255-260)	100766 A	1,710	7%	24	21	220	25	220
	100767 A	1,832	93%	24	21	446	51	371
	100768 A	1,783	98%	24	21	896	105	406
701863 (295-300)	100766 B	2,394	1%	24	21	220	25	220
	100767 B	2,652	89%	24	21	442	51	442
	100768 B	2,513	98%	24	21	892	105	492
701952 (5-10)	100766 C	1,690	1%	24	21	222	25	222
	100767 C	1,812	86%	24	21	447	51	444
	100768 C	1,692	98%	24	21	902	105	492
702054 (70-75)	100766 D	1,433	2%	24	21	219	25	219
	100767 D	1,487	59%	24	21	446	51	412
	100768 D	1,421	98%	24	21	898	105	529
702274 (255-260)	100766 E	1,286	2%	24	21	222	25	222
	100767 E	1,310	68%	24	21	452	51	383
	100768 E	1,263	94%	24	21	902	105	432
702290 (330-335)	100766 F	1,937	1%	24	21	221	25	221
	100767 F	1,995	59%	24	21	449	51	447
	100768 F	1,893	97%	24	21	893	105	506

APPENDIX 2 – Red Mountain Metallurgical test-work result tables

Red Mountain Project
Scoping Sulfuric Acid Leach Testing
Pulverized Material, Target 100% passing 0.106 millimeters
Summary of Leach Time Testing

Description	KCA Test No.	Calc. Head Li, mg/kg	Li Ext., %	Leach Time, hrs	Leach Temp., °C	H_2SO_4 Addition, kg/MT	H_2SO_4 Initial Conc., g/L	Acid Consump., kg/MT
701854 (255-260)	100769 A	1,771	83%	1	21	892	105	383
	100770 A	1,818	90%	2	21	897	105	364
	100771 A	1,764	94%	4	21	899	105	377
	100768 A	1,783	98%	24	21	896	105	406
701863 (295-300)	100769 B	2,399	92%	1	21	887	105	472
	100770 B	2,440	94%	2	21	888	105	482
	100771 B	2,468	97%	4	21	895	105	469
	100768 B	2,513	98%	24	21	892	105	492
701952 (5-10)	100769 C	1,731	80%	1	21	889	105	485
	100770 C	1,715	88%	2	21	894	105	458
	100771 C	1,693	91%	4	21	892	105	475
	100768 C	1,692	98%	24	21	902	105	492
702054 (70-75)	100769 D	1,416	28%	1	21	894	105	370
	100770 D	1,431	83%	2	21	896	105	473
	100771 D	1,435	96%	4	21	896	105	470
	100768 D	1,421	98%	24	21	898	105	529
702274 (255-260)	100769 E	1,225	21%	1	21	901	105	335
	100770 E	1,241	53%	2	21	901	105	362
	100771 E	1,234	70%	4	21	902	105	375
	100768 E	1,263	94%	24	21	902	105	432
702290 (330-335)	100769 F	1,969	26%	1	21	898	105	400
	100770 F	1,934	63%	2	21	894	105	448
	100771 F	1,923	72%	4	21	895	105	473
	100768 F	1,893	97%	24	21	893	105	506

Red Mountain Project
Scoping Sulfuric Acid Leach Testing
Pulverized Material, Target 100% passing 0.106 millimeters
Summary of Leach Temperature Testing

Description	KCA Test No.	Calc. Head Li, mg/kg	Li Ext., %	Leach Time, hrs	Leach Temp., °C	H_2SO_4 Addition, kg/MT	H_2SO_4 Initial Conc., g/L	Acid Consump., kg/MT
701854 (255-260)	100769 A	1,771	83%	1	21	892	105	383
	100772 A	1,941	97%	1	60	903	105	393
701863 (295-300)	100769 B	2,399	92%	1	21	887	105	472
	100772 B	2,599	96%	1	60	900	105	489
701952 (5-10)	100769 C	1,731	80%	1	21	889	105	485
	100772 C	1,846	91%	1	60	896	105	500
702054 (70-75)	100769 D	1,416	28%	1	21	894	105	370
	100772 D	1,549	91%	1	60	905	105	493
702274 (255-260)	100769 E	1,225	21%	1	21	901	105	335
	100772 E	1,419	82%	1	60	912	105	387
702290 (330-335)	100769 F	1,969	26%	1	21	898	105	400
	100772 F	2,067	89%	1	60	906	105	498

APPENDIX 3 – Red Mountain X-Ray Diffraction and CEC results table

ASTUTEMETALSNL

Customer ID	100756A	100757A	100758A	100759A	100760A	100761A
OCPM ID	M-24032-001	M-24032-002	M-24032-003	M-24032-004	M-24032-005	M-24032-006
Phase Name	Wt%	Wt%	Wt%	Wt%	Wt%	Wt%
Quartz	7.9	7.9	5.8	11.3	16.3	10.9
K-feldspar	34.0	24.6	30.6	16.8	23.9	22.5
Plagioclase	6.6	6.3	7.7	7.2	6.4	5.0
Muscovite	0.0	0.0	0.0	0.0	6.1	0.0
Swelling Clay (CEC)	30.5	35.9	30.9	28.7	16.8	27.1
Calcite	17.4	21.1	22.4	26.3	26.2	29.4
Dolomite	0.0	0.0	2.7	0.0	0.0	0.0
Pyrite	0.8	0.6	0.0	0.2	1.3	1.0
Analcime	1.9	2.2	0.0	9.6	2.6	2.7
Anhydrite	0.9	1.4	0.0	0.0	0.4	1.3