ASX ANNOUNCEMENT

RED MOUNTAIN MINING LTD **27 September 2023**

Positive Metallurgical Lithium Recoveries Achieved at Mustang

HIGHLIGHTS

- **Excellent lithium metallurgical recoveries of up to 88% Lithium from Mustang samples achieved using kinetic leach test work with sulfuric acid**
- **An average of 82.5% (150g/L H_2SO_4) Lithium recovery from all kinetic samples at 72 hours**
- **Consistently low rate of acid consumption during entire lithium extraction process for all samples**
- **Further metallurgical tests warranted to optimise results with aim of reducing acid consumption and leaching time**

Red Mountain Mining Limited ("**RMX**" or the "**Company**") is pleased to announce results received from preliminary metallurgical test work on several core samples from its Mustang Lithium Project, located in Nevada USA.

Following the successful maiden drilling campaign at Mustang, a metallurgical program was designed as proof of concept that lithium can be extracted from collected drill samples through the use of sulphuric acid as a metallurgical process. The program has proved successful, with results delivering lithium recoveries of up to 88% after leaching for a period of 72 hours.

The metallurgical test work program was completed by independent consultants, Kappes Cassiday & Associates, based in Reno, Nevada. The Company is highly encouraged by results to date and will look to further optimise results on a wider range of samples with the aim of reducing acid consumption while increasing the lithium recovery.

Red Mountain Chairman, Troy Flannery commented:

"*Not only have we discovered lithium mineralisation from surface at Mustang via our phase 1 drilling program[1], but also, we have confirmed that this mineralisation responds very positively to acid leaching, where the test work results showed high recoveries at low acid consumption rates. We are excited to continue our drilling at Mustang, with the hope to encounter further thick mineralisation to eventually build an economic resource.*"

[1] *Refer to RMX announcement dated 12th July 2023*

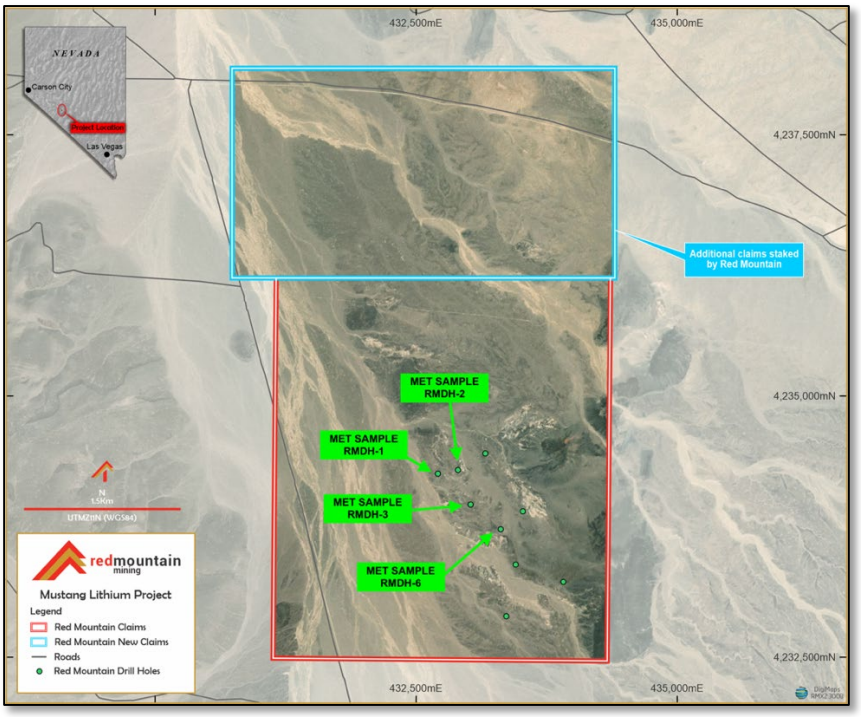

Figure 1: Location of samples collected for metallurgical testing from the Mustang Lithium Project

MUSTANG LITHIUM PROJECT – PRELIMINARY METALLURGICAL TEST WORK RESULTS

Kinetic acid leach tests were conducted on portions of four (4) composite samples. For the tests, samples were pulverised to a target size of 100% passing 0.106 millimetres. Five hundred (500) grams of solids were leached with a target 150 gram per litre sulfuric acid solution at 25% solids by weight for up to 72 hours.

Table 1: Summary of Lithium Leach Kinetics at 25% Solids and 150 g/L acid

Samples	Lithium Extraction (2 hours)	Lithium Extraction (6 hours)	Lithium Extraction (24 hours)	Lithium Extraction (48 hours)	Lithium Extraction (72 hours)
RMDH-1	50%	56%	65%	76%	85%
RMDH-2	52%	56%	65%	70%	76%
RMDH-3	57%	60%	76%	84%	88%
RMDH-6	55%	58%	75%	82%	81%

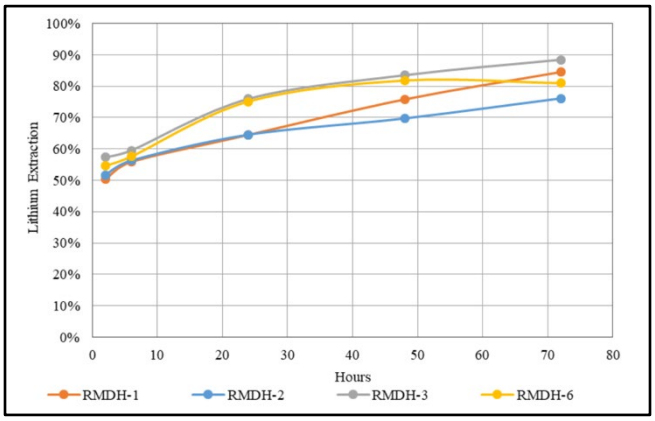

Figure 2: Summary of Lithium Leach Kinetics plotted from Table 1

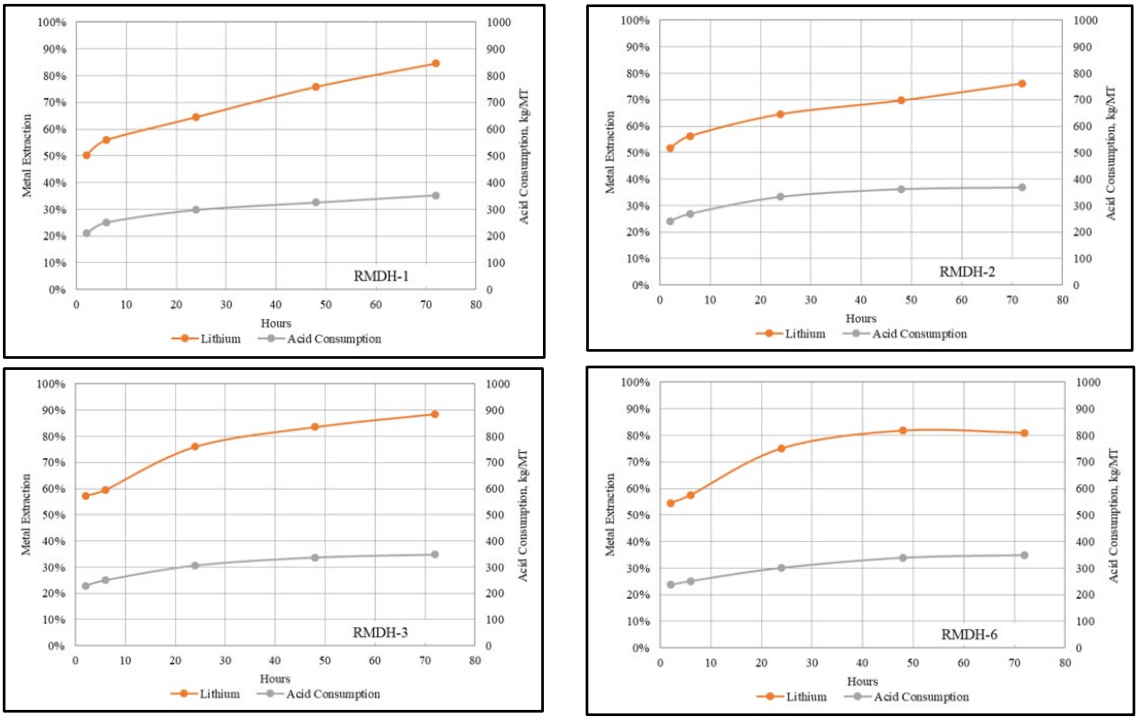

Figure 3: Summary of Lithium extraction (%) for all 4 samples with respect to acid consumption over 72 hour period

Summary from Figure 3 indicates that for 3 of 4 samples, lithium continues to be recovered faster than acid consumption over the 72 hour period, suggesting that further test leaching beyond 72 hours is warranted. In addition, the Company will look to pursue further metallurgical test work with the goal to optimise acid consumption while increasing the lithium recovery.

MUSTANG LITHIUM PROJECT – PHASE 2 DRILLING

Red Mountain is pleased to advise that permit application for phase 2 drilling at Mustang Lithium Project has been successfully lodged to the Bureau of Land Management in Nevada. Currently, drill permit applications for both Mustang and Lithic are pending. At this stage, the Company envisages likelihood for Mustang drill permit to be granted earlier, in which case engaged contractor Alloy Drilling will be ready to mobilise drill rig to the Mustang property, subject to land and track clearance.

Authorised for and on behalf of the Board,

Mauro Piccini

Company Secretary

About Red Mountain Mining

Red Mountain Mining Limited is an ASX-listed (ASX: RMX) mineral exploration and development company. Red Mountain has a portfolio of critical minerals including lithium, rare earth and base metal projects, located in the USA and Australia. The Company's flagship project is based in Nevada USA, which is prospective for lithium claystone mineralisaton. The Company's other projects include the Monjebup Rare Earths Project and the Koonenberry Gold Project.

Disclaimer

In relying on the above mentioned ASX announcement and pursuant to ASX Listing Rule 5.32.2, the Company confirms that it is not aware of any new information or data that materially affects the information included in the above-mentioned announcement.

Competent Persons Statement

The information in this announcement that relates to Exploration Results and other technical information complies with the 2012 Edition of the Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves (JORC Code). It has been compiled and assessed under the supervision of Mr Mark Mitchell, Independent consulting geologist. Mr Mitchell is a Member of the Australasian Institute of Geoscientists and 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 JORC Code. Mr Mitchell consents to the inclusion in this announcement of the matters based on his information in the form and context in which it appears.

JORC Code, 2012 Edition – Table 1

Section 1 Sampling Techniques and Data

(Criteria in this section apply to all succeeding sections.)

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.*	• 10 reverse circulation (RC) drill holes were completed for a total of 2497ft (761.5m). Samples were collected at intervals of 5ft (1.525m). • Target mineralisation was lithium clays • Samples were submitted to American Assay Laboratories (AAL) (Nevada, U.S.A) where they were prepared by Basic Rock/Drill Prep Package (BRPP2KG). • Rock chip samples were analysed using method 4 acid Lithium Exploration 10 element ICP-OES (Lab code: IO-4AB10), with 10 elements reported.
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 tube, depth of diamond tails, face-sampling bit or other type, whether core is oriented and if so, by what method, etc).*	• Reverse circulation drilling was completed by Alloy Drilling LLC using a ProTrack 1200 tracked Reverse Circulation drill rig with 900 CFM Compressor. The holes were drilled with a 6 7/8" hammer to 10'. Casing was set, then the hole was drilled with a 4 3/4" downhole hammer.
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/gain of fine/coarse material.*	• Samples were weighed in at the lab. • If sample recoveries became too small, driller was consulted for measures to help increase the amount of sample coming out from the drillhole. • Wet sample bags were sequestered from one another until dried in the field. Measures were taken to ensure no cross contamination occurred between samples while wet. Very little sampled material left the sample bag, almost all was water

Criteria	JORC Code explanation	Commentary
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 in nature. Core (or costean, channel, etc) photography.* • *The total length and percentage of the relevant intersections logged.*	• Drill hole rock chips were logged every 5ft (1.525m) by a qualified geologist and recorded digitally in a spreadsheet. • Logging is qualitative in nature and suitable for the preliminary exploration work completed. • 100% of drill hole chips were logged for all 10 RC drill holes.
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 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.*	• Between 3 and 14kg RC drill chip samples were collected using a cyclone splitter. • Samples were prepared by Basic Rock/Drill Prep Package (BRPP2KG) at American Assay Laboratories (AAL). • The sample size and preparation method is considered suitable for this stage of exploration for the commodity in question. • Duplicate field samples were not collected. Blanks were inserted every ~2 per hole. • Duplicate samples were completed at AAL from reject re-split material. • 1 blank and 1 standard were inserted per drillhole.
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.*	• Rock chip samples were analysed using method 4 acid Lithium Exploration 10 element ICP-OES (Lab code: IO-4AB10), with 10 elements reported. • No geophysical, spectrometers, handheld XRF instruments etc have been utilized at this stage. • Laboratory QAQC was utilized in the form of blanks, standards and duplicates. This was deemed to have passed laboratory and internal standards for this phase of exploration.
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.*	• No significant intersections • No twinned drill holes. • Primary assay data is received digitally from the lab, compiled into one table and QAQC performed on standards, blanks and duplicates. • Original data files are stored on a secure company server.

Criteria	JORC Code explanation	Commentary
		• There are no adjustments to assay data • Drill hole data is collected using the Gaia GPS application on Ipad. This is downloaded to laptop and tabulated and stored in Microsoft Excel.
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.*	• Sample locations are recorded using a Garmin handheld GPS (+/- 3m accuracy). • Grid is NAD83 / UTM zone 11N
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 holes were positioned in areas where anomalous lithium was located in surface sampling and at field locations where claystone was identified by the company geologist. • Data spacing and distribution would not be suitable for a MRE at this point in the exploration process. • No sample composition has been applied.
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.*	• It is not known if there is any structural control on lithium-bearing claystones. • Drill holes were oriented vertically as the claystones are flat lying and this should be perpendicular to any anomalous unit encountered.
Sample security	• *The measures taken to ensure sample security.*	• Samples were bagged into 7x12” cotton sample bags with sample # printed in black marker on the outside of the bag. A sample tag matching the bag number is placed in the bag. Sample details including co-ordinate are written into the sample tag book. Bagged samples are then placed into a larger plastic woven bag with sample intervals (contents written on the outside). • The samples were transported to AAL in Nevada in the geologists 4wd vehicle.
Audits or reviews	• *The results of any audits or reviews of sampling techniques and data.*	• Results have been reviewed by other personnel associated with the company.

Section 2 Reporting of Exploration Results

(Criteria listed in the preceding section also apply to this section.)

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.*	• The Mustang Project consists 228 claims (1,906.3 Ha). • The project is subject to a Net Smelter Royalty ("NSR") in favour of Lithic Lithium LLC of 2%. • There are no native title claims covering the tenement. • No heritage surveys were required prior to commencing exploration activities. • The Project does not intersect any underlying pastoral lease. • The Project does not intersect an area identified as wilderness, national park or an area of environmental interest.
Exploration done by other parties	• *Acknowledgment and appraisal of exploration by other parties.*	• Relevant exploration for Lithium at the Mustang Project during 2021 was undertaken by Lithic Lithium LLC have included grab, trench and stream sediment samples.
Geology	• *Deposit type, geological setting and style of mineralisation.*	• The deposit type and main target mineralisation model is of claystone hosted lithium.

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.*
		• Drill hole information is located in Table 1 and Appendix 1 as announced on 12 July, 2023

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*	• No cut-off grades have been used during reporting • No metal equivalent values have been reported.

Criteria	JORC Code explanation	Commentary
	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.*	
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').*	• Drilling is interpreted to intersect flat lying claystone deposits in approximately a perpendicular direction. • Downhole lengths are reported, true widths are not yet known
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.*	• Maps and images are included within body of text.
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.*	• The results and text provided within this report are considered comprehensive and representative. All significant assay results have been disclosed within the text.
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.*	• All relevant exploration results and observations have been reported that are pertinent to this stage of exploration. • Current testwork by Kappes Cassiday & Associates on four representative samples from the Mustang Project is described in this announcement. Data was acquired for sulfuric acid kinetic leaching to determine capacity of recovery / extraction of lithium from all four samples.
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.*	• Red Mountain shall undertake further geological mapping, drill hole interpretation, and surface sampling to inform future RC drilling programs. • The Company continues to assess additional opportunities to add to its current asset portfolio.