# **REEDY** REEDY LAGOON CORPORATION LIMITED



# ABN 41 006 639 514

ASX : RLC

28 April 2023

# RLC stakes lithium-clay targets near Tonopah, Nevada USA

RLC has staked an additional 158 lode claims covering an area of 1,312 hectares in Nevada adjoining its Alkali Lake North project ("ALN").

The Company is targeting lithium in clay-sediments and has expanded its area under claim to cover additional ground it considers prospective. The potential for lithium to be contained in shallow clay-sediments and tuffs is underlined by results that have been reported by other explorers for drilling conducted to the north of ALN, including by American Lithium Corp. (refer <u>ASX release 30/01/2023</u>).

The total ALN area under claims has now increased to 3,908 hectares.

Initial filings with the County and BLM for the Lode claims staked are underway. The staking was conducted during two operations which were completed in late February. The location of the new claims, which are all Lode Claims, is shown in Figure 1.

RLC Managing Director Mr Geof Fethers stated that "This latest acquisition of ground with potential for shallow lithium-clay deposits adds another dimension to RLC's lithium exploration in The Great Basin. The new claims are within 9 kilometres of the regionally significant town of Tonopah with all services including power, water and sealed highways. Mr Fethers commented that it is highly encouraging that government mapping in 1979 had demonstrated that the Siebert Formation - the recognized host rock for the Tonopah lithium in clay deposits – may be present in RLC's ground covered by only a thin veneer of recent alluvium. The Alkali take North project remains prospective for lithium in brine, but exploration for lithium-rich clay is significantly quicker and less costly than exploration for lithium in brine".

Figure 1. Location diagram showing the newly staked claims at RLC's Alkali Lake North lithium project ("ALN"). The new claims are the Lode Claims shown in 2 blocks. One abuts the northern boundary of the ALN Placer Claims the other block abuts their eastern boundary. Other



lithium projects shown are: American Lithium Corp's TLC Lithium Deposit and Blackrock Silver Corp's Tonopah North Lithium Project.

#### Background to Lithium-clay mineralisation in the Tonopah area

Reedy Lagoon holds a significant block of Placer Claims in Alkali Lake Valley, immediately south of Tonopah, covering brine targets that have been identified by 2-D and 3-D AMT surveys and seismic surveys (refer ASX releases: <u>29 May 2017</u>, <u>28 August 2018</u>, <u>7 September 2021</u>, <u>14 October 2021</u>, and <u>6 January 2022</u>). The potential sources for lithium in the brine are the metamorphic core complex located 15 kilometres to the west at Lone Mountain and the volcanic stratigraphy including rhyolite and rhyodacite associated with the North Tonopah Caldera and the South Tonopah Caldera in the Tonopah area. Two companies in particular (Lithium Americas Corp. and Blackrock Silver Corp.) have made recent announcements about lithium enriched clay discoveries on the west side of Tonopah. The common element between these discoveries is that the lithium occurs at shallow depths (0 to 100 metres) within a volcanic ash unit known as the Siebert Formation<sup>1</sup> that was deposited in shallow lake systems that existed in the volcanically active Miocene era.

Importantly, metallurgical testwork carried out by Lithium Americas on drill samples has demonstrated fast leach times for lithium extraction and this is because lithium atoms are loosely adsorbed onto clay molecules and not tied up in the molecular lattice of clay minerals such as hectorite.

# **Geological Context**

The Tonopah area demonstrates two possible styles of lithium mineralisation:

- Lithium enriched brines in Pleistocene lake sediments associated with large-scale basin subsidence the "Silver Springs" model, and
- Lithium enriched clays associated with geothermal activity in shallow lacustrine settings including caldera lakes and hot springs the "TLC" model.

The Alkali Lake North project is located on the western margin of the Tonopah South Caldera (refer Figures 1 & 2), which is one of a series of large, nested calderas in the Tonopah region. The original ALN Placer Claims staked by RLC were designed to cover a deep drainage basin located centrally within the project area which coincides with a regional gravity "low" anomaly (Figure 3).

The Siebert Formation (Ts3) is extensive in the Tonopah area and RLC has staked lode claims on the northern and eastern side of the Placer Claims in order to cover the western extension of the Siebert Formation under shallow alluvial cover. The Siebert Tuff is exposed just south of Tonopah at Siebert Mountain where it is 180m thick consisting of white tuffs. Siebert Tuff is widely distributed in southern Nevada and eastern California and it is the preferred host for lithium enriched clays in the Tonopah area (refer to Figure 2 below).



Figure 2. Location of Siebert Formation (Ts3) and Tonopah calderas in relation to recently staked claims [geology source: Nevada Bureau of Mines and Geology Bull. 78, 1972] (only selected claim holdings are shown).



Figure 3. Original RLC Placer Claim holdings "ALN Claims" in Tonopah area were designed to cover a gravity "low" indicative of a deep sedimentary basin with potential for lithium enriched brines [ASX: <u>14 October 2021</u>]

#### **RLC Objectives**

The RLC claims were staked to secure ground with potential for lithium-clay deposits. The ground occupies a key position on the western margin of the Tonopah South Caldera (Figure 1.) which is analogous to the Tonopah North caldera in terms of geology and structural setting. The RLC claims are within 300 metres of outcropping Siebert Tuff on their northeast side and the Siebert Tuff is covered by a thin veneer of alluvium on its west side where it extends into the RLC ground.

Geological mapping of the Tonopah area by the Nevada Bureau of Mines<sup>1</sup> in 1979 (Bulletin 92) supports the concept that the Siebert Formation extends into the RLC claims beneath thin alluvial cover and with considerable thickness.

### **Status of RLC Claim Holding**

RLC has increased its area under claims at its Alkali Lake North project by staking an additional 158 lode claims covering an area of 1,312 hectares (3,242 acres) on US Federal land which is administered by the Bureau of Land Management (BLM). The recently staked lode claims combine with the existing placer claims to comprise 334 placer claims and 158 lode claims covering 3,908 hectares (9,657 acres). The claims are located in Esmeralda County, Nevada. The Company has commenced the process to file the claims with the County and the BLM including payment of the first year's rent.

#### **Forward Program**

RLC has commenced preparations for a drill program targeting Li-clay sediments/tuffs and to test a shallow 2D-AMT conductor that coincides with Pleistocene lake sediments interpreted in Shallow Seismic Reflection survey data acquired last year.

Authorised for release on behalf of the Company.

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#### Competent Persons Statement

The information in this report as it relates to exploration results and geology was compiled by Mr Geoff Balfe who is a Member of the Australasian Institute of Mining and Metallurgy and a Certified Professional. Mr Balfe is a consultant to Reedy Lagoon Corporation Limited. Mr Balfe 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 as defined in the 2012 Edition of the 'Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves'. Mr Balfe consents to the inclusion in the report of the matters based on the information in the form and context in which it appears.

#### Company Statement:

Where Exploration Results have been reported in earlier RLC ASX Releases referenced in this report, those releases are available to view on the <u>INVESTORS page</u> of reedylagoon.com.au. The Company confirms that it is not aware of any new information or data that materially affects the information included in those earlier releases. The Company confirms that the form and context in which the Competent Person's findings are presented have not been materially modified from the original market announcement.

#### LISTED REFERENCES

- 1. Geology of the Tonopah, Lone Mountain, Klondike, and Northern Mud Lake Quadrangles, Nevada; Nevada Bureau of Mines and Geology, Bulletin 92, 1979. P 62, P 105, and cross section C----C'
- 2. Benson, T.R., Coble, M.A., Rytuba, J.J., & Mahood, G.A.: Lithium enrichment in intracontinental rhyolite magmas leads to Li deposits in caldera basins.

# JORC Code, 2012 Edition – Table 1 report template

# **Section 1 Sampling Techniques and Data**

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

Critoria	IOPC Code explanation	Commontary
Criteria Sampling techniques	<ul> <li>Nature and quality of sampling (e.g., 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.</li> </ul>	<ul> <li>Commentary</li> <li>The Company (Reedy Lagoon Corporation Limited and its subsidiary companies: Nevada Lithium Pty Ltd and Sierra Lithium LLC.) has not collected surface geochemical samples</li> </ul>
	<ul> <li>Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used.</li> <li>Aspects of the determination of mineralisation that are Material to the Public Report.</li> <li>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, such as where there is coarse gold that has inherent sampling problems. Unusual commodities or mineralisation types (e.g., submarine nodules) may warrant disclosure of detailed information.</li> </ul>	
Drilling techniques	<ul> <li>Drill type (e.g., core, reverse circulation, open-hole hammer, 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 is oriented and if so, by what method, etc).</li> </ul>	<ul> <li>No drilling undertaken on the Alkali Lake North project</li> </ul>
Drill sample recovery	<ul> <li>Method of recording and assessing core and chip sample recoveries and results assessed.</li> <li>Measures taken to maximise sample recovery and ensure representative nature of the samples.</li> <li>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.</li> </ul>	• N/A

	Criteria	JORC Code explanation	Commentary
	Logging	<ul> <li>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.</li> <li>Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc) photography.</li> <li>The total length and percentage of the relevant intersections logged.</li> </ul>	• N/A
MO DSD	Sub- sampling techniques and sample preparation	<ul> <li>If core, whether cut or sawn and whether quarter, half or all core taken.</li> <li>If non-core, whether riffled, tube sampled, rotary split, etc and whether sampled wet or dry.</li> <li>For all sample types, the nature, quality and appropriateness of the sample preparation technique.</li> <li>Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples.</li> <li>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.</li> <li>Whether sample sizes are appropriate to the grain size of the material being sampled.</li> </ul>	• N/A
RUOSJE	Quality of assay data and laboratory tests	<ul> <li>The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total.</li> <li>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.</li> <li>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 precision have been established.</li> </ul>	• N/A
	Verification of sampling and assaying	<ul> <li>The verification of significant intersections by either independent or alternative company personnel.</li> <li>The use of twinned holes.</li> <li>Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.</li> <li>Discuss any adjustment to assay data.</li> </ul>	• N/A
	Location of data points Data spacing	<ul> <li>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.</li> <li>Specification of the grid system used.</li> <li>Quality and adequacy of topographic control.</li> <li>Data spacing for reporting of Exploration Results.</li> </ul>	<ul> <li>N/A</li> <li>N/A</li> </ul>

Criteria	JORC Code explanation	Commentary
and distribution	<ul> <li>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.</li> <li>Whether sample compositing has been applied.</li> </ul>	
Orientation of data in relation to geological structure	<ul> <li>Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type.</li> <li>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.</li> </ul>	• N/A
Sample security	The measures taken to ensure sample security.	• N/A
Audits or reviews	The results of any audits or reviews of sampling techniques and data.	• N/A

Criteria	JORC Code explanation	Commentary
Mineral tenement and land tenure status	<ul> <li>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.</li> <li>The security of the tenure held at the time of reporting along with any known impediments to obtaining a license to operate in the area.</li> </ul>	<ul> <li>Existing Placer Claims WH 1 to WH 334 have been staked and duly recorded with Esmeralda County and filed with the Bureau of Land Management (BLM).</li> <li>BLM receipts for the filing of the WH Placer Claims (Alkali Lake North) are in the possession of the Company. The claims have been staked by Sierra Lithium LLC, a wholly owned US subsidiary of Nevada Lithium Pty Ltd.</li> <li>Lode Claims have been staked in two blocks at Alkali Lake North: AC 1 – 63 were staked in December 2022. The Company has 90 days from the date of marking out to record the claims with Esmeralda County and file them with the Bureau of Land Management. Recordation and filing of these claims are underway. AC 64 – 158 were staked in February 2023 and these claims are in the process of being filed.</li> <li>On acceptance by the BLM the Lode Claims will be recorded as "Filed".</li> </ul>

Criteria	JORC Code explanation	Commentary
Exploration done by other parties	<ul> <li>Acknowledgment and appraisal of exploration by other parties.</li> </ul>	<ul> <li>There is no record of lithium exploration on any of the subject placer or lode claims.</li> <li>American Lithium Corporation and Blackrock Silver have identified significant lithium-clay resources in properties 11kms north of the RLC claims hosted by the Siebert Tuff, which is a unit within the Siebert Formation. The Siebert Formation is in excess of 180m thick in the Tonopah area.</li> <li>Dajin Resources Corporation is conducting exploration on Alkali Lake 9km to the southwest of RLC's Alkali Lake North property and has reported lithium values up to 383 ppm in 12 surface samples. Dajin has completed extensive geophysical surveys including gravity surveys which indicate a local sub-basin more than 1200m deep. This sub basin continues to the north and may be connected to the basin that is covered by RLC's placer claims at its Alkali Lake North project.</li> <li>The Silver Peak Lithium Operation is located 25km southwest of RLC's Alkali Lake North property. Albemarle does not report lithium production from Silver Peak, but production has been estimated to be about 6,000 tonnes of lithium carbonate per year.</li> </ul>
		<ul> <li>There is significant historical gold-silver mining and recent exploration activity immediately east and north of the Company's Lode Claims. This includes the Hasbrouck-Divide area where West Vault Mining Inc. ("West Vault" or the "Company") (TSXV: WVM, OTCX: WVMDF) has announced filing on SEDAR an independent NI 43-101 Pre-feasibility Study ("Technical Report") prepared by USA-based engineering firm RESPEC Company LLC ("RESPEC") for West Vault's 100% owned Hasbrouck Gold Project located near Tonopah, Nevada.</li> </ul>
)		<ul> <li>In the Tonopah area Blackrock Silver Corp TSX-V: BRC is exploring the historic West Tonopah silver-gold lode system and has announced a stope optimized mineral resource estimate of 2.975M tonnes grading 446 g/t AgEq for 42.65M ounces AgEq, one of the highest-grade undeveloped silver projects in the world.</li> </ul>
Geology	• Deposit type, geological setting, and style of mineralisation.	• Although there is no sub-surface geological information available there is a generally accepted geological model for lithium brines in closed basins in Esmeralda County, Nevada. Where drill hole data exists, the basins are characterized by multiple alternating aquifers consisting of sandy or

Criteria J	ORC Code explanation	Commentary
		<ul> <li>gravelly beds with intercalated fine grained sediments including clay beds (derived from decomposition of tuffa deposits), fine volcanic ash layers, and alluvial silty deposits and lacustrine clay and mudstone. In Clayton Valley at least eight lithium brine enriched aquifers have been recognized. In Alkali Lake Valley there is less sub-surface geologic data available. The geology is interpreted to consist of the Tertiary Esmeralda Formation overlain by Pleistocene Lake sediments and Quaternary alluvium and gravels.</li> <li>Lithium enriched clay deposits have been identified in the Siebert Tuff which is a volcaniclastic sediment correlative of the Esmeralda Formation. The Siebert Tuff has an estimated age of 13 to 17 My (Bonham and Garside, 1972)</li> <li>The Tonopah district is one of the largest historic silver districts in North America, producing 174 Mozs Ag &amp; 1.8 Mozs Au from 7.5Mt. Mined from underground from 1900 to 1930, with peak years producing up to 14,000,000cz/ year AgEq; Victor vein was 24m thick where production ceased. Tonopah is a quartz-adularia epithermal vein system with Ag:Au ratio of 100:1. The mineralized veins occur in the ring fracture zone associated with a Miocene resurgent caldera.</li> <li>Gold mineralisation also occurs in stockworks, and veins associated with rhyodacite domes that were emplaced during resurgent volcanic activity. This is the style of mineralisation that may be present in the recently staked RLC Lode Claims.</li> </ul>
Drill hole • Information	<ul> <li>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: <ul> <li>easting and northing of the drill hole collar</li> <li>elevation or RL (Reduced Level – elevation above sea level in metres) of the drill hole collar</li> <li>dip and azimuth of the hole</li> <li>down hole length and interception depth</li> <li>hole length.</li> </ul> </li> <li>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.</li> </ul>	<ul> <li>RC drill holes are planned to test lithium clay targets down to a maximum depth of 150m. Drill holes will be sampled using a rotary splitter on 1.0m intervals.</li> <li>Gold potential – the RC drill holes in the lode claims will also be sampled and analysed for gold and silver as they are interpreted to be in areas with similar geology to the Hasbrouck-Divide gold deposits.</li> <li>RC drill holes will be used to test shallow brine targets including a shallow ~ 200m deep 2D AMT target that coincides with interpreted Pleistocene Lake sediments. Sampling will be done using a plastic sleeve bailer at selected depths in the drill hole.</li> </ul>

	Criteria	JORC Code explanation	Commentary
	Data aggregation methods	<ul> <li>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.</li> <li>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.</li> <li>The assumptions used for any reporting of metal equivalent values should be clearly stated.</li> </ul>	• N/A
	Relationship between mineralisation widths and intercept lengths	<ul> <li>These relationships are particularly important in the reporting of Exploration Results.</li> <li>If the geometry of the mineralisation with respect to the drill hole angle is known, its nature should be reported.</li> <li>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').</li> </ul>	• N/A
N	Diagrams	<ul> <li>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.</li> </ul>	• N/A
	Balanced reporting	<ul> <li>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.</li> </ul>	• N/A
	Other substantive exploration data	<ul> <li>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.</li> </ul>	<ul> <li>2D magneto telluric surveys carried out by Zonge International in 2017 over Alkali Lake North has defined two conductive layers that are compatible with brine layers.</li> <li>A 3D AMT survey carried out by Industrial Imaging Inc in 2018 and with follow-up survey in 2021.</li> </ul>
	Further work	<ul> <li>The nature and scale of planned further work (e.g., tests for lateral extensions or depth extensions or large-scale step-out drilling).</li> <li>Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive.</li> </ul>	<ul> <li>RC drilling to test for lithium in clay is planned and funding for this activity is currently being sought. Further geophysical work is under consideration to better define existing brine targets on Alkali Lake North and tests for the presence of lithium bearing brine by drilling at these targets remain to be planned.</li> </ul>

# The following sections have not been included as no Mineral Resources or Reserves have been reported:

# **Section 3 Estimation and Reporting of Mineral Resources**

(Criteria listed in section 1, and where relevant in section 2, also apply to this section.)

# Section 4 Estimation and Reporting of Ore Reserves

(Criteria listed in section 1, and where relevant in sections 2 and 3, also apply to this section.)