

# Nevada Lithium Resources Inc.

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NEWS RELEASE

## NEVADA LITHIUM ANNOUNCES ROBUST PRELIMINARY ECONOMIC ASSESSMENT FOR THE BONNIE CLAIRE LITHIUM PROJECT

**NPV(8%) \$1.5 BILLION AFTER-TAX AT \$13,400/TONNE LCE**

**Vancouver, British Columbia** – October 13, 2021 –Nevada Lithium Resources Inc. (the “**Company**”) (CSE: NVLH) is pleased to announce the results of a Preliminary Economic Assessment (PEA) for the Bonnie Claire Lithium Project, located in Nye County, Nevada. The PEA, completed in accordance with National Instrument 43-101 (NI 43-101) with Effective date of August 20, 2021, was carried-out by Global Resource Engineering Ltd. (GRE), of Denver, CO, USA.

The PEA highlights are as follows:

- **Average annual production of 32,300 tonnes of lithium carbonate equivalent (LCE)**
- **23.8% after-tax Internal Rate of Return (IRR)**
- **\$1.5 billion after-tax Net Present Value (NPV)** at an 8% discount rate
- **Upfront Capital costs of \$547M**, which includes \$126M in contingency
- Lithium carbonate price assumption of \$13,400/tonne
- Payback period of 6.7 years, after-tax
- 15,000 tonne per day processing rate over a 40 year mine-life
- Cash operating cost of \$5,974/tonne LCE
- All-in sustaining cost of \$6,057/tonne LCE
- Break-even price (0% IRR) of \$6,545/tonne LCE
- Overall lithium recovery of 74.7%

Stephen Rentschler, Company CEO comments, “*We are absolutely thrilled with the conclusions of the PEA on Bonnie Claire. The results demonstrate a very robust lithium Project, which is also one of the largest, if not the largest, lithium deposits in North America. The PEA also identified potential mining and recovery methods that we believe have ESG characteristics that will be attractive to lithium end-users. With current lithium prices significantly higher than the base case used in the PEA, the Project appears very well positioned to be a potentially significant and long-term contributor to the global lithium market.*”

*As evidenced by recent transactions, we believe the merger and acquisition environment in the lithium industry is very strong. Located in the world's #1 mining jurisdiction of Nevada, USA (2020 Fraser Institute Survey), we look forward to aggressively advancing Bonnie Claire through Prefeasibility and unlocking the value of this Project for our shareholders.”*

The following table shows the after-tax IRR and NPV sensitivity to changes in various costs and lithium prices (Table 1):

**Table 1: Bonnie Claire Lithium Project Sensitivity Analysis**

Variable	% of Base Case		
	50%	100%	150%
NPV8 (million \$)			
Capital Cost	\$1,755	\$1,497	\$1,235
Operating Cost	\$2,264	\$1,497	\$670
Lithium Price	-\$428	\$1,497	\$3,275
IRR			
Capital Cost	39.2%	23.8%	17.6%
Operating Cost	32.0%	23.8%	14.9%
Lithium Price	1.3%	23.8%	39.7%

Variable	Li <sub>2</sub> CO <sub>3</sub> Price			
	\$13,400	\$20,000	\$25,000	\$30,000
NPV8 (million \$)	\$1,497	\$3,248	\$4,572	\$5,897
IRR	23.8%	39.5%	50.2%	60.3%

*Note: IRR (internal rate of return) and NPV (net present value) are both shown after-tax*

Results of the PEA represent forward-looking information. This economic assessment is by definition preliminary in nature, and it includes inferred mineral resources that are considered too speculative to have the economic considerations applied to them that would enable them to be categorized as mineral reserves. There is no certainty that the preliminary economic assessment will be realized. Mineral resources are not mineral reserves as they do not have demonstrated economic viability.

The Bonnie Claire lithium deposit is a sediment hosted lithium occurrence situated within the Sarcobatus Valley, in Nye County, Nevada. At Bonnie Claire, lithium mineralization is not present in clay minerals but rather is present as lithium compounds (lithium carbonate and lithium salts) deposited within the fine grain clay, silt, and sand pore space of the rock units. The nature of the lithium mineralization at Bonnie Claire may provide for unique advantages in processing not amenable to typical clay deposits where the lithium is contained in the crystal lattice of the clay mineral species.

## Mining Method

The PEA applies a borehole mining method to extract in-situ mineralization and deliver it to the process plant at surface. The mining process involves high-pressure water pumped through drill holes into the formation while simultaneously pumping the resulting loosened material to the surface, where it is transported to the process plant for lithium extraction (Figure 1). The soft nature of the deposit material is anticipated to make it ideally suited to borehole mining methods. Assumptions made for the borehole mining method include a mining jet radius of 9.1 m (30 ft), minimum borehole spacing of 31.7 m (104 ft), a 5% dilution factor, and a minimum lithium grade of 1,200 ppm.

The use of borehole mining allows for the targeting of high-grade mineralization at depth as well as offering other Project benefits, including reduced surface disturbance (i.e. no open-pit) and reduced tailings at surface due to tailings backfilling underground. Collectively, **the method allows for significantly reduced surface disturbance** compared to a conventional open-pit approach.

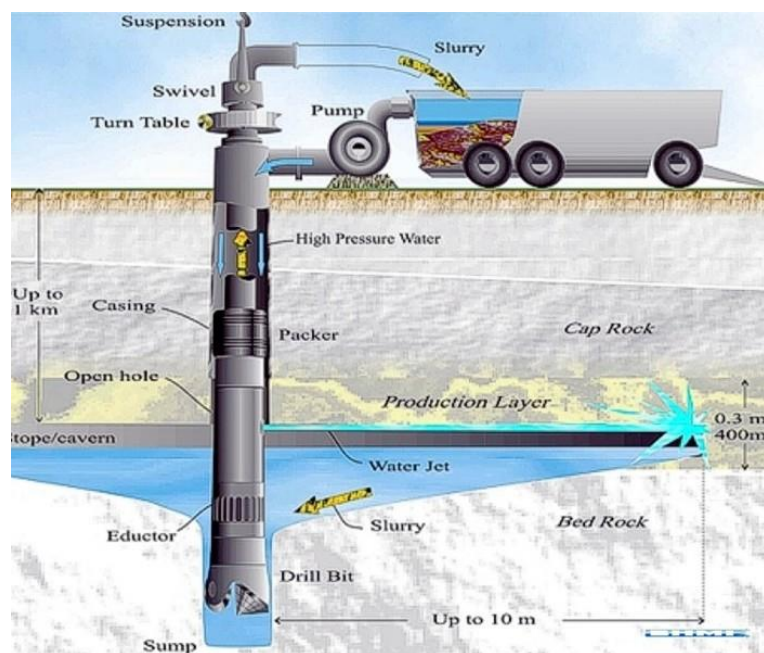


Figure 1: Diagram of borehole mining method (Source: BHMI, CC BY-SA 3.0 <<https://creativecommons.org/licenses/by-sa/3.0/>>, via Wikimedia Commons, accessed 8/3/2021)

## Lithium Processing and Recovery Methods

The lithium recovery process for Bonnie Claire has been developed by Hazen Research of Golden, CO, and is based on a pre-treatment approach developed by the US Bureau of Mines, followed by downstream industry-standard commercially proven unit operations. The Bonnie Claire process is divided into five (5) basic unit operations – feed preparation, pre-treatment, lithium extraction, impurity removal, and lithium carbonate production.

Pre-concentration of the lithium and rejection of calcite through size separation was shown to be effective. At a cut size of 45 microns ( $\mu\text{m}$ ), the coarse fraction contained approximately 90% of the calcite and less than 2% of the lithium, with a mass rejection of approximately 25%. The lithium bearing material is pretreated through thermal processing, which involves the calcination of the material with the addition of sodium sulfate. The lithium is subsequently extracted from the calcine in a hot water leach. High lithium extractions (up to 80%) have been achieved to date with significant optimization potential remaining.

The benefit of calcination and hot water leaching is that the resulting leach liquor contains minimal deleterious impurities compared to alternative direct acid treatments – particularly iron. As such, the lithium recovery is higher in the purification stage and the process is greatly simplified allowing for the use of conventional commercial unit operations.

The designed throughput for the process is 15,000 tonnes per day or 5,175,000 tonnes per year. The anticipated overall lithium recovery is 75% into the final marketable product. The target would be to produce a lithium carbonate product of 99.5% purity. No secondary products production has been investigated; however, the Bonnie Claire material does contain significant sodium and potassium, and therefore has the potential to produce agricultural fertilizer (glaserite) or potassium sulphate (sulphate of potash).

## Updated Mineral Resource Statement

The PEA is supported by an updated mineral resource estimate which is constrained by the borehole mining method only. As with the previous resource estimates, **the updated mineral resource estimate confirms Bonnie Claire to be one of the largest lithium deposits in North America** with a contained lithium carbonate equivalent (LCE) of 18.4 million tonnes (see Table 2). The mineral resource is supported by 2,056.7 m of RC drilling (8 holes) and 221.3 m of coring (2 holes) completed from 2016 through 2020.

**Table 2: Bonnie Claire Statement of Mineral Resource**

Class	Extraction Method Applied for Constraint	Mass (Million Tonnes)	Li Grade (ppm)	Li (Million kg)	Lithium Carbonate Equivalent (Million kg)
Inferred	Borehole	3,407.3	1,013.0	3,451.5	18,372.3

Source: “Preliminary Economic Assessment NI 43-101 Technical Report, Bonnie Claire Lithium Project, Nye County, Nevada” (Effective date of August 20, 2021). Cutoff grade of 700 ppm Li. The Qualified Person for the estimate is Terre Lane of Global Resource Engineering Ltd., of Denver, CO, USA. Resources are not Mineral Reserves and do not have demonstrated economic viability. There is no certainty that all or any part of the Mineral Resources will be converted into Mineral Reserves. Numbers in the table have been rounded to reflect the accuracy of the estimate and may not sum due to rounding. Assumes 68% recovery by borehole. The technical report is anticipated to be filed and available within 45 days, as required by NI 43-101, on the Company’s SEDAR profile at [www.sedar.com](http://www.sedar.com).”

## Project Ownership

The Company currently owns a 20% interest in the Bonnie Claire Project (the “Project” or “Property”) and holds an Option from Iconic Minerals Ltd. (Iconic) to acquire an additional 30% interest, for a combined 50% interest in the Project.

For further information concerning the Company and its business, please see the long form prospectus dated September 14, 2021 (the “**Prospectus**”) supporting its application for listing on the CSE. A copy of the Prospectus, as well as the recently completed Technical Report on Bonnie Claire, is available under the Company’s profile at [www.sedar.com](http://www.sedar.com).

## Qualified Person

Terre Lane, SME Registered Member, Principal Mining Engineer, Global Resource Engineering Ltd and Qualified Person as defined by National Instrument 43-101, has reviewed the technical information in this news release.

J. Todd Harvey, MBA, Ph.D., President and Director of Process Engineering, Global Resource Engineering Ltd and Qualified Person as defined by National Instrument 43-101, has reviewed the technical information in this news release.

Hamid Samari, PhD, Senior Geologist, Global Resource Engineering Ltd and Qualified Person as defined by National Instrument 43-101, has reviewed the technical information in this news release.

Rick Moritz, Principal Mining Engineer, Global Resource Engineering Ltd and Qualified Person as defined by National Instrument 43-101, has reviewed the technical information in this news release.

Darren L. Smith, M.Sc., P.Geo., Vice President of Exploration of the Company and Qualified Person as defined by National Instrument 43-101, has reviewed the technical information in this news release.

### **About Nevada Lithium Resources Inc.**

Nevada Lithium Resources Inc. is a mineral exploration and development company in the business of acquiring, exploring, evaluating, and developing natural resource properties. The Company currently owns 20% of the Bonnie Claire Lithium Project, Nevada, and holds an Option to acquire an additional 30% interest, for a combined 50% interest in the Project. The Bonnie Claire Project is prospective for sediment-hosted lithium and lithium brines, and currently hosts one of the largest lithium resources in North America.

### ***Forward Looking Information and Additional Cautionary Statements***

Certain information contained in this news release constitutes forward-looking information or forward-looking statements within the meaning of Canadian securities laws ("forward-looking statements"). All statements in this news release, other than statements of historical fact, which address events, results, outcomes or developments that the Company expects to occur are forward-looking statements. Forward-looking statements include statements that are predictive in nature, depend upon or refer to future events or conditions, or include words such as "expects", "anticipates", "plans", "believes", "estimates", "considers", "intends", "targets", or negative versions thereof and other similar expressions, or future or conditional verbs such as "may", "will", "should", "would" and "could". More particularly and without restriction, this news release contains forward-looking statements and information about the economic analyses for the Bonnie Claire Lithium Project and its potential for development and expansion, the anticipated IRR and NPV for the project, capital and operating costs, processing and recovery estimates and strategies, proposed mining method and development plans, mineral resource estimates and statements as to management's expectations with respect to, among other things, the matters and activities contemplated in this news release.

Such forward looking statements are necessarily based upon a number of factors and assumptions that, while considered reasonable by the Company as of the date of such statements, are inherently subject to significant business, economic and competitive uncertainties and contingencies. The assumptions made by the Company in preparing the forward looking statements contained in this news release, which may prove to be incorrect, include, but are not limited to: the specific assumptions set forth above and in the Technical Report; that the Company and Iconic are able to develop the property in the manner set out in the Technical Report; that the Company and Iconic are able to advance the property through to feasibility; that if viable, the Company and Iconic are able to obtain all necessary permits to develop the mine on the property; that the exchange rate between the Canadian dollar, and the United States dollar remain consistent with current levels or as set out in this press release; that prices for lithium remain consistent with the Company's expectations; that prices for key mining supplies, including labour costs and consumables, remain consistent with the Company's current expectations; that the current estimates of mineral resources, mineral grades and mineral recovery are accurate; and that there are no material variations in the current tax and regulatory environment. Many factors, known and unknown, could cause the actual results to be materially different from those expressed or implied.

By its nature, this information is subject to inherent risks and uncertainties that may be general or specific and which give rise to the possibility that expectations, forecasts, predictions, projections

or conclusions will not prove to be accurate, that assumptions may not be correct and that objectives, strategic goals and priorities will not be achieved. Factors that could cause future results or events to differ materially from current expectations expressed or implied by the forward-looking statements include: availability of financing to fund the proposed exploration and development activities, the ability of the exploration program to identify and expand mineral resources, operational risks in exploration and development for lithium, the ability to realize the PEA, delays or changes in plans with respect to exploration or development projects or capital expenditures, uncertainty as to calculation of mineral resources, changes in commodity and power prices, changes in interest and currency exchange rates, the ability to attract and retain qualified personnel, inaccurate geological and metallurgical assumptions (including with respect to the size, grade and recoverability of mineral resources), changes in development or mining plans due to changes in logistical, technical or other factors, title defects, government approvals and permits, cost escalation, changes in general economic conditions or conditions in the financial markets, environmental regulation, operating hazards and risks, delays, taxation rules, competition, public health crises such as the COVID-19 pandemic and other uninsurable risks, liquidity risk, share price volatility, dilution and future sales of common shares, aboriginal claims and consultation, cybersecurity threats, climate change, delays and other risks described in the Company's documents filed with Canadian securities regulatory authorities. Readers should refer to the risks discussed in the Company's long form prospectus dated September 14, 2021 and subsequent continuous disclosure filings with the Canadian Securities Administrators available at [www.sedar.com](http://www.sedar.com). Readers should not place undue reliance on forward looking statements.

ON BEHALF OF THE BOARD of DIRECTORS

**Nevada Lithium Resources Inc.**

***"Kelvin Lee"***

**Kelvin Lee,  
CFO and Director**

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***The CSE does not accept responsibility for the adequacy or accuracy of this release.***

***Cautionary Statement***

*This news release contains certain forward-looking information and forward-looking statements within the meaning of applicable securities legislation (collectively "forward-looking statements"). The use of any of the word "will" and similar expressions are intended to identify forward-looking statements. These statements involve known and unknown risks, uncertainties and other factors that may cause actual results or events to differ materially from those anticipated in such forward-looking statements. Such forward-looking statements should not be unduly relied upon. Actual results achieved may vary from the information provided herein as a result of numerous known and unknown risks and uncertainties and other factors. The Company believes the expectations reflected in those forward-looking statements are reasonable, but no assurance can be given that these expectations will prove to be correct. The Company does not undertake to update these forward-looking statements, except as required by law.*