

# Nevada Lithium provides positive update on Hydraulic Borehole Mining method and commences updated PEA for Bonnie Claire Lithium Project

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VANCOUVER, April 16, 2024 - [Nevada Lithium Resources Inc.](#) (CSE: NVLH; OTCQB: NVLHF; FSE: 87K) ("Nevada Lithium" or the "Company") is pleased to provide an update on the proposed Hydraulic Borehole Mining ("HBHM") mining method proposed to extract high-grade mineralized material at its 100% owned Bonnie Claire lithium project (the "Project" or "Bonnie Claire"), located in Nye County, Nevada. The Company is also pleased to announce the commencement of an updated Preliminary Economic Assessment ("PEA") on the Project.

Nevada Lithium's CEO, Stephen Rentschler, commented: "Nevada Lithium has received an updated assessment of the Hydraulic Borehole Mining (HBHM) method from an internationally recognized leader in the HBHM mining technique, Kinley Exploration LLC. We are delighted that Kinley has concluded that accessing depths to 3,000 ft, where we have recently confirmed the existence of an open-ended, mineralized high grade lithium zone, is achievable."

He continued, "As we continue the work towards Pre-Feasibility Study (PFS), we have also contracted Global Resource Engineering, Ltd. to update our existing Preliminary Economic Assessment (PEA). This update will incorporate the latest information on metallurgy, the proposed HBHM scenario outlined in the Kinley update, long-term lithium prices, and calculate a new mineral resource estimate incorporating drill results from the past two seasons."

Join Stephen Rentschler, CEO of Nevada Lithium, for a LIVE Virtual Event

Date and Time: Wednesday, April 17, 2024 at 12 pm ET / 9 am PT

[Click here to register for the event >](#)

## Highlights:

- Kinley Exploration LLC ("Kinley") has provided a working model based on HBHM that successfully extracts mineralized slurry between 1500ft and 2500 ft at Bonnie Claire
- Model focuses on extraction of previously intersected high-grade mineralization, illustrated by Hole BC2303C, which intersected 4,154 ppm Li over 680ft (see the Company's news release dated February 27, 2024), and currently open in several directions
- Operating production cost estimated to be USD \$ 14.28/ton, based on continuous mining rate of 100 tons per hour per mining unit
- Confidence that HBHM can access depths greater than 2,500 feet, as high-grade mineralization has been intersected below this depth
- Economics to be incorporated in updated PEA to be released summer 2024

## Background

At Bonnie Claire, lithium mineralization occurs within very fine-grained, volcanoclastic sediments. These sediments are almost 3,000 feet in thickness, and partially lithified for much of that depth. The resulting ground conditions of these rocks are not ideally suited to conventional underground mining methods. This has been addressed by proposing the innovative HBHM method. While this method has been used elsewhere, Bonnie Claire would see its use in the Great Basin for the first time.

## Kinley Exploration LLC

The Company has engaged Kinley to work with the Company's external consultants, Global Resource Engineering, Ltd. ("GRE"), to evaluate the application of HBHM technologies at the Bonnie Claire lithium deposit. The objective of this work is to establish a reasonable economic mining strategy to extract lithium in a continuous, cost effective and safe manner. The work focused on the zone of high-grade mineralization intersected from 1,500 feet to 2,500 feet depth, illustrated by Hole BC2303C, which intersected 4,154 ppm Li over 680ft (see the Company's news release dated February 27, 2024).

Kinley is an expert and world leader in Hydraulic Borehole Mining and is well respected internationally in its capacity to operate complex drilling programs and technology applications in the Oil, Mining and Geoscientific sectors. The company owns, develops, and practices proprietary mining technology with multiple patents and operational intellectual property methods specific to HBHM.

## Bonnie Claire HBHM Layout

HBHM is a surface-based mining method that uses a high-pressure water jet to disaggregate the mineralized material and evacuate the resulting slurry back to surface. Previous models at Bonnie Claire have used vertical primary production wells arranged in a honeycomb pattern. After processing, material was backfilled with concrete, to minimize surface disturbance.

Further discussions between the Company, Kinley and GRE have suggested that mineralized material may behave in a plastic manner & flow toward the production wells during extraction, which should increase the efficiency of the method. The current model combines an array of "Jet Wells" arranged within the targeted resource section and a single "Production Well" located outside the section, drilled and cased to the base of the section.

The proposed initial layout is outlined below, and illustrated in Figure 1.

- (1) Directionally drilled Production Well offset 280 feet from Mined section center;
- (32) "Jet" Wells centered and spaced within a 280-foot diameter surveyed section;
- Jet Wells cased and cemented to 1,500 then mined 1,500 to 2500 feet;
- Production well drilled and cased to 2,500 feet;
- Mineralized material between Jet Wells, when excited will flow to intake
- Number of Jet Wells may be reduced in future based on caving and pilot findings

The current mining application considered is to directionally drill a single large diameter Production Well centered under the targeted resource section to be mined (see image below). The well is drilled with a 280-foot offset from center of the target section. Construction of the Production Well would be to case the well to within 20 to 60 feet of the projected bottom of the target section. The bottom section will then be mined out to open an initial cavity. This directionally drilled well will be primarily vertical and turned under the center of the resource.

Next a series of "Jet" Wells will be drilled and cased to 1,500 feet in a mining pattern with engineered spacing to maximize the plastic flowing condition of the mineralized material between the wells. These will be centered and patterned above the Production Well. These wells will be drilled vertically in a 280-foot diameter section. The Jet Wells will be pilot drilled to total depth, and then jetted to initiate caving into the Production Well for pumping to the surface. A continuous hydraulic cutter, mounted on the intake of the Production Well will assist in slurring the mineralized material.

## Lifting Mineralized Material to Surface

Kinley has determined that the most economic lifting method for the targeted mining depth will be hydraulic airlift. This low energy method lifts by reverse flood pumping as slurry is lifted to surface with two-phase pumping. Air is injected in the internal slurry stream reducing the density of the fluid, and the weight of the annular fluid causes flow down the annulus and a vacuum is created at the intake of the Production Well.

## Jetting Wells and Flow

Kinley has modelled 32 Jet Wells at Bonnie Claire; this number may potentially be decreased once the rate

of flow of the mineralized material to the intake has been determined based on velocity and caving characteristics. Based on continuous mining at 100 tons per hour, the entire cavity would take approximately 4.25 years to extract. This work is completed without the requirement to move the Production Rig to a new operating platform location.

This mining strategy and method assumes that the cavity will not stay open long term and will not require backfill with the caverns, such as pumped tailings from processing or cementing. Based on geotechnical advice, the Company has assumed that caving or flow of mineralized material to the intake will occur and lead to increased production.

Figure 1: Proposed HBHM initial layout at Bonnie Claire. Wells (brown cylinders) are centered and spaced within a 280-foot diameter surveyed section. Slurry is hydraulically airlifted to a single directionally-drilled Production Well offset from Mined section center (Blue cylinder). Note: the figure depicts 13 wells for illustrative purposes. Actual modelling is based on 32 wells.

## Summary

The factors applied to the modeled method are a combination of estimated parameters, experiences in similar resource projects, and discussions with Bonnie Claire's advisor, Global Resource Engineering. Kinley estimates that the Production Mining unit and the Jet Mining unit can achieve a continuous mining rate of 100 tons per hour of mineralized material production with an operating cost of USD \$ 14.28/ton based on the current detailed cost input estimates.

### Access to Depths > 2,500 ft

The current HBHM model has focused on high grade mineralization that has been intersected between 1550 and 2500 ft. High-grade material has been intersected down to 2780 in at least one hole (see the Company's news release dated November 20, 2023), and the Company asked Kinley to comment on the application of the method at greater depths.

Kinley has concluded that the Hydraulic Borehole Mining method can successfully access material deeper than 2,500 ft. Hydraulic Airlift pumping is commonly used in drilling industrial large diameter wells up to 5,000 feet in undersea mining and in dredging applications. Therefore, hydraulic airlifting material from 3,000 ft is considered achievable with this mining strategy.

Increased OPEX above that identified in the economic model would occur as depths past 2,500 feet are mined. However, the presence of high-grade lithium mineralization at Bonnie Claire below 2,500 ft suggests a favorable trade-off in increased revenues versus increased costs. The Company will continue to study the impact of increasing the anticipated mining depth to include mineralization from 2,500 to 3,000 ft.

### Bonnie Claire Hydraulic Borehole Mining Pilot

Kinley has recommended a pilot study to examine the practicality of HBHM at Bonnie Claire. The Pilot is based on a single well cased to 2,200 feet. The driller will drill another pilot 150 feet away from the casing shoe to 2,350 feet and the pilot mining program will be conducted through the target mineralized material section between 2,200 and 2,350 feet.

## Preliminary Economic Assessment Update

The Company is pleased to announce that it has asked GRE to commence an update to its 2021 PEA. It is anticipated that the new PEA will include

- A new restated mineral resource estimate, including 2022 and 2023 drilling, which will include the lower high-grade mineralization, such as Hole BC2303C, which intersected 4,154 ppm Li over 680ft (see the Company's news release dated February 27, 2024),

- Detailed modelling of the hydraulic mining method, including productions rates, CAPEX and OPEX input, and projected water usage
- Updated metallurgical work demonstrating the ability to produce battery-grade lithium carbonate at the scale of a bulk sample (300kg) of mineralized sediment
- An updated economic model, including CAPEX, OPEX, NPV, mine life and payback

Much of the work to be included has been completed, and GRE have estimated that the new PEA can be completed in summer 2024. The resulting technical report will replace the Company's existing 2021 PEA (detailed below).

#### Retention of Market Maker

Subject to the receipt of approval by the Canadian Stock Exchange ("CSE"), the Company has retained Generation IACP Inc. ("Generation") to provide market making services with the objective of maintaining a reasonable market and improving the liquidity of [Nevada Lithium Resources](#)' common shares (the "Shares").

Under the issuer trading services agreement between Generation and Nevada Lithium (the "Agreement"), the Company has agreed to pay Generation a monthly fee of CAD \$7,500 plus applicable taxes. The initial term of the Agreement is six months, and such term will be automatically renewed for subsequent six-month periods unless terminated earlier by 30 days prior written notice. Commencing on the first anniversary of the Agreement, the fee payable to Generation will automatically increase annually by 3.0%. Notwithstanding the foregoing, Generation shall have the right to terminate the Agreement at any time upon prior written notice. Generation will not receive any Shares or options as compensation.

Nevada Lithium and Generation are unrelated and unaffiliated entities. Generation has informed the Company that it does not currently own any securities of Nevada Lithium; however, Generation and its clients may acquire a direct interest in the securities of the Company.

Generation is a Toronto-based, independently owned investment dealer providing innovative solutions for institutional, corporate, and individual clients in Canada and abroad. Established in 1998, Generation is a member of the Investment Industry Regulation Organization of Canada and a member firm of the Toronto Stock Exchange and the TSXV.

About [Nevada Lithium Resources Inc.](#)

[Nevada Lithium Resources Inc.](#) is a mineral exploration and development company focused on shareholder value creation through its core asset, the Bonnie Claire Lithium Project, located in Nye County, Nevada, where it holds a 100% interest.

Bonnie Claire has a current NI 43-101 inferred mineral resource of 3,407 million tonnes (Mt) grading 1,013 ppm Li for 18.372 million tonnes (Mt) of contained lithium carbonate equivalent (LCE), at a cut-off grade of 700 ppm Li<sup>2</sup>

The PEA for Bonnie Claire indicates a Net Present Value (8%) of \$1.5 Billion USD (after tax) using \$13,400 USD per tonne LCE and after-tax IRR of 23.8%. With an LCE price of \$30,000 USD per tonne, the Net Present Value (8%) of the Project is \$5.9 Billion USD (after tax) and an IRR of 60.3%<sup>2</sup>.

For further information on Nevada Lithium and to subscribe for updates about Nevada Lithium, please visit its website at: <https://nevadalithium.com/>

#### QP Disclosure

The technical information in the above disclosure has been reviewed and approved by Dr. Jeff Wilson, PhD, P.Geo, Vice President of Exploration for Nevada Lithium, designated Qualified Person under National Instrument 43-101.

The technical information in the above disclosure has also been reviewed and approved by Colin B. Kinley, CEO of Kinley Exploration LLC. Mr. Kinley is independent of the Company

<sup>2</sup>See Preliminary Economic Assessment NI 43-101 Technical Report on the Bonnie Claire Lithium Project, Nye County, Nevada authored by Terre Lane, J. Todd Harvey, MBA, PhD, Hamid Samari, PhD and Rick Moritz (Effective date of August 20, 2021, and Issue date of February 25, 2022) (the "PEA" or the "Preliminary Economic Assessment") as summarized in Nevada Lithium's news release dated October 13, 2021, which are available on Nevada Lithium's SEDAR+ profile at [www.sedarplus.ca](http://www.sedarplus.ca). Results of the Preliminary Economic Assessment represent forward-looking information. This economic assessment is, by definition, preliminary in nature and 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. There is no certainty that all or any part of the Mineral Resources will be converted into Mineral Reserves.

On behalf of the Board of Directors of [Nevada Lithium Resources Inc.](#)

*"Stephen Rentschler"*  
Stephen Rentschler, CEO

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#### Cautionary Note Regarding Forward-Looking Statements

This news release contains forward-looking statements and forward-looking information (collectively, "forward-looking statements") within the meaning of applicable Canadian securities legislation. These statements relate to matters that identify future events or future performance. Often, but not always, forward looking information can be identified by words such as "could", "pro forma", "plans", "expects", "may", "will", "should", "budget", "scheduled", "estimates", "forecasts", "intends", "anticipates", "believes", "potential" or variations of such words including negative variations thereof, and phrases that refer to certain actions, events or results that may, could, would, might or will occur or be taken or achieved.

The forward-looking statements contained herein include, but are not limited to, statements regarding: the performance of the Project and results of the 2023 Exploration and Development Plan (including, without limitation, its mineral resources, current claims and its ability to utilize global lithium needs); and the performance of lithium as a commodity, including the sustained lithium demand and prices.

In making the forward looking statements in this news release, Nevada Lithium has applied several material assumptions, including without limitation: market fundamentals that result in sustained lithium demand and prices; the receipt of any necessary permits, licenses and regulatory approvals in connection with the future development of Bonnie Claire in a timely manner; the availability of financing on suitable terms for the development; construction and continued operation of Bonnie Claire; the Project containing mineral resources; and Nevada Lithium's ability to comply with all applicable regulations and laws, including environmental, health and safety laws.

Investors are cautioned that forward-looking statements are not based on historical facts but instead reflect Nevada Lithium's management's expectations, estimates or projections concerning future results or events based on the opinions, assumptions and estimates of managements considered reasonable at the date the statements are made. Although Nevada Lithium believes that the expectations reflected in such forward-looking statements are reasonable, such information involves risks and uncertainties, and under reliance should not be placed on such information, as unknown or unpredictable factors could have material adverse effects on future results, performance or achievements expressed or implied by Nevada Lithium. Among the key risk factors that could cause actual results to differ materially from those projected in the forward-looking statements are the following: operating and technical difficulties in connection with mineral exploration and development and mine development activities at the Project; successful implementation of the HBHA program; estimation or realization of mineral reserves and mineral resources, requirements for additional capital; future prices of precious metals and lithium; changes in general economic, business and political conditions, including changes in the financial markets and in the demand and market price for commodities; possible variations in ore grade or recovery rates; possible failures of plants, equipment or processes to operate as anticipated; accidents, labour disputes and other risks of the mining industry; delays or the inability of Nevada Lithium to obtain any necessary approvals, permits, consents or authorizations, financing or other planned activities; the CSE's approval of the Company's proposed Agreement with Generation; changes in laws, regulations and policies affecting mining operations; currency fluctuations, title disputes or claims limitations on insurance coverage and the timing and possible outcome of pending litigation, environmental issues and liabilities; risks relating to epidemics or pandemics such as COVID-19, including the impact of COVID-19 on Nevada Lithium's business; as well as those factors discussed under the heading "Risk Factors" in Nevada Lithium's latest Management Discussion and Analysis and other filings of Nevada Lithium filed with the Canadian securities authorities, copies of which can be found under Nevada Lithium's profile on the SEDAR+ at [www.sedarplus.ca](http://www.sedarplus.ca).

Should one or more of these risks or uncertainties materialized, or should assumptions underlying the forward-looking statements prove incorrect, actual results may vary materially from those described herein as intended, planned, anticipated, believed, estimated or expected. Although Nevada Lithium has attempted to identify important risks, uncertainties and factors which could cause actual results to differ materially, there may be others that cause results not to be as anticipated, estimated or intended. Nevada Lithium does not intend, and does not assume any obligation, to update this forward-looking information except as otherwise required by applicable law.

A photo accompanying this announcement is available at  
<https://www.globenewswire.com/NewsRoom/AttachmentNg/6ab93d60-7fa3-43d2-8cf2-bc0950242d2f>

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