

HALLGARTEN + COMPANY

Initiation of Coverage

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Noram Lithium

(TSX-V: NRM, OTCQB: NRVTF, FSE: N7R1)
Strategy: LONG

Key Metrics

Price (CAD)	\$0.27
12-Month Target Price (CAD)	\$0.84
Upside to Target	211%
12mth hi-low	\$0.10 - \$0.65
Market Cap (CAD mn)	\$24.00
Shares Outstanding (millions)	88.90
Options & Warrants (millions)	9.23
Fully Diluted (millions)	98.13

Noram Lithium

Prime Positioning in the Clayton Valley

- + The company's Zeus Project is in one of the best addresses in the rapidly evolving Lithium zone in the Clayton Valley, in close proximity to the US's leading Lithium production site, the Silver Peak facility of Albemarle
- + An upgraded Mineral Resource Estimate was issued in June of 2024 and a PEA is planned in the second half of 2024
- + Latest MRE prompts a pivot to a focus on the high-grade core of the Zeus deposit
- + A substantial Life of Mine envisaged at 14 years from high-grade ore (1,500ppm Li) plus 15 years from medium-grade ore (1,108 ppm Li) with an additional 18 years of potentially processing low-grade (814 ppm Li) stockpiles.
- + Exceptionally low implied strip ratio of 0.36:1
- + US-based ultimate end-users of Lithium (battery makers & OEMs – and the US government) are eager to see onshored Lithium sourcing
- + Nevada is, by most measures, regarded as the best jurisdiction in the US for mining
- + Strong cash position with CAD\$3.7mn as at the January 31, 2024
- ✗ The retracing of Lithium prices, in China, from ludicrous levels has taken down valuations in almost the whole Lithium complex, despite no serious company using the high prices as a benchmark
- ✗ Lithium extraction from clays is scientifically-proven, but has yet to see a major mining operation initiated
- ✗ The brutal reduction in valuations across the space has made equity funding more expensive (by being more dilutive)

Lithium Closer to Home

With Lithium in short supply, at least for now, the investment and development dollars are heading for the US jurisdiction that provides most opportunities at the least degree of hassle, which is Nevada. Noram Lithium has positioned itself next to Silver Peak, the largest producing Lithium mine in the US (belonging to Albemarle). In a few short years they have brought the project up to a level where a PFS shall shortly be published and have partnered with the well-known processing technologists, Kemetco, in perfecting a tried & true process for the extraction of Lithium from the clays at the Zeus project.

In this initiation of coverage, we shall look at the company's Zeus project, its prospects, its PEA and recent resources, the road to production and the Lithium outlook.

The US Pushes Back in Lithium

Before the Biden Administration launched its curiously named *Inflation Reduction Act* as a vehicle to

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kickstart the Green Revolution in the US, the global playing field was fairly even, but with US-based projects mainly disadvantaged by unsubstantiated investor perceptions of a torturous permitting process. That most of the Lithium projects were in Nevada (a notable exception being in North Carolina) helped mitigate concerns on permitting due to Nevada's long-term status as a mining-friendly jurisdiction. However, US-based projects did not have much of a home team advantage, but that is now radically altered.

The Zeus Project

The genesis of the Zeus project dates back to when Noram Lithium originally acquired land in the Clayton Valley in 2016. The project is located in central Esmeralda County, some 220 miles southeast of Reno, Nevada. The regional town of Tonopah is 41 miles northeast of the project, and the small community of Silver Peak lies six miles west of the project. Access from Tonopah is by traveling 22 miles south on US Highway 95, then 19 miles west on Silver Peak Road.

The initial land holding has been reduced to a holding of 146 Zeus placer and 136 Zeus II lode claims. Both types of claims cover approximately the same area. The land package covers 1,133 hectares (2,800 acres). The perimeter of Noram's claims is located within one mile (1.6 kilometers) of Albemarle's Silver Peak lithium brine operations.

Between Albemarle's operations and Noram's land position lies a property comparable in size to the Zeus Project and held by Century Lithium (TSX-v: LCE), which we covered in a recent report.

Local Context

The valley has a total watershed area of about 1,430 km² and the floor of the valley lies at an altitude of 4,320 ft above sea level. The surrounding mountains rise several thousand feet above the valley floor, with the highest surrounding mountain, Silver Peak at 9,380 ft asl. The valley is bounded to the west by the Silver Peak Mountain Range, to the south by the Palmetto Mountains, to the east by Clayton Ridge and the Montezuma Range, and to the north by the Weepah Hills.

There is no permanent surface water in the Clayton Valley watershed, all watercourses are ephemeral and only active during periods of intense precipitation. At the project itself, the terrain is dominated by mound-like outcrops of mudstone and claystone, cut by dry gravel washes across a broad alluvial fan.

Geology

The project is in the Great Basin physiographic region, within the Walker Lane province of the western Great Basin. The Clayton Valley is a closed basin near the southwestern margin of the Basin and Range geo-physiographic province of western Nevada. The valley is the lowest in elevation of a series of local *playa*-filled basins, with a *playa* floor of about 100 km², which collects surface drainage from an area of about 1,300 km².



Drill rigs on site at the Zeus Project

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The valley is fault-bounded on all sides, delineated by the Silver Peak Range to the west, Clayton Ridge and the Montezuma Range to the east, the Palmetto Mountains and Silver Peak Range to the south, and Big Smokey Valley, Alkali Flat, Paymaster Ridge, and the Weepah Hills to the north.

The western portion of the project area is dominated by the uplifted basement rocks of Angel Island which consist of metavolcanic and clastic rocks, and colluvium. The southern and eastern portions are dominated by uplifted, lacustrine sedimentary units of the Esmeralda Formation. Within the project area, the Esmeralda Formation is comprised of fine grained sedimentary and tuffaceous units, with some occasionally pronounced local undulation and minor faulting. Elevated Lithium concentrations, generally greater than 600 ppm, are encountered in the local sedimentary units of the Esmeralda Formation from surface to at least 142 meters below surface grade.

The Lithium-bearing sediments primarily occur as silica-rich, moderately calcareous, interbedded tuffaceous mudstone, claystone, and siltstone.

Formation

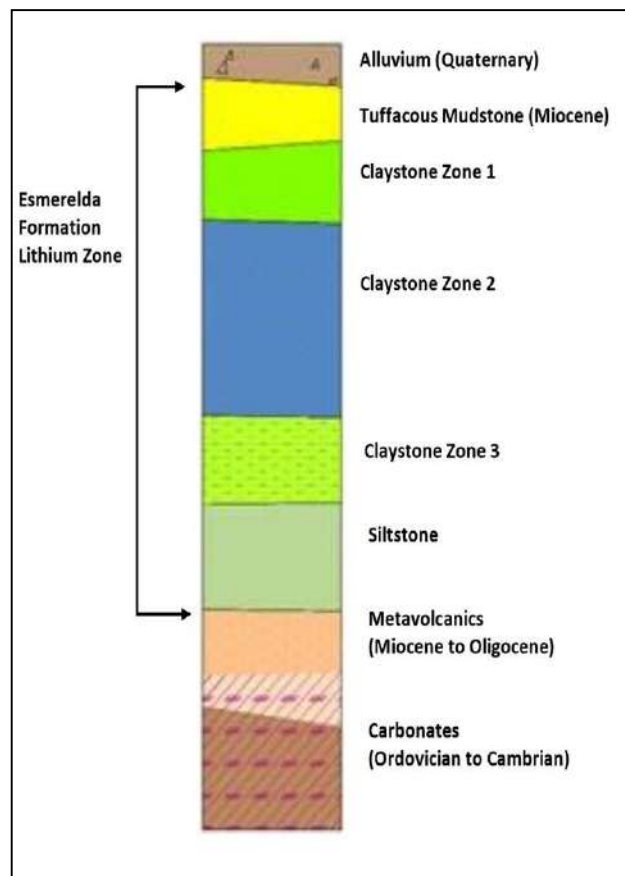
The valley lies within an extensional half-graben system between a young metamorphic core complex and its breakaway zone.

Multiple wetting and drying periods during the Pleistocene resulted in the formation of lacustrine deposits, salt beds, and Lithium-rich brines in the Clayton Valley basin. Extensive alteration of vitric material to zeolites and clay minerals has taken place in the tuffaceous sandstone and shale of the Esmeralda Formation, and anomalously high Lithium concentrations accompany the alteration.

The lacustrine sediment near the center of pluvial lakes in Clayton Valley is generally green to black calcareous mud. According to (Davis, et

al., 1986), about half of the sediments, by weight, are smectite and illite, which are present in nearly equal amounts, with the remaining half composed of calcium carbonate (10-20%), kaolinite, chlorite, volcanoclastic detritus, traces of woody organic material, and diatoms.

These tuffaceous lacustrine facies of the Esmeralda Formation contain up to 1,300 ppm Lithium and an average of 100 ppm Lithium. Lithium bearing clays in the surface *playa* sediments contain from 350 to 1,171 ppm Lithium. More recent work in 2012 confirmed elevated Lithium concentrations in the range



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of 160-910 ppm from samples collected on the northeast side of Clayton Valley. Miocene silicic tuffs and rhyolites along the basin's eastern flank have Lithium concentrations up to 228 ppm.

In the areas of the claim block where the Esmeralda Formation outcrops, the resulting topographic configuration (see photo below) consists of long rounded "ridges" of Esmeralda separated by gravel-filled washes. These ridges are generally 50 feet (15 meters) to 100 feet (30 meters) wide and have lengths of a few hundred to a few thousand feet, trending northwest.

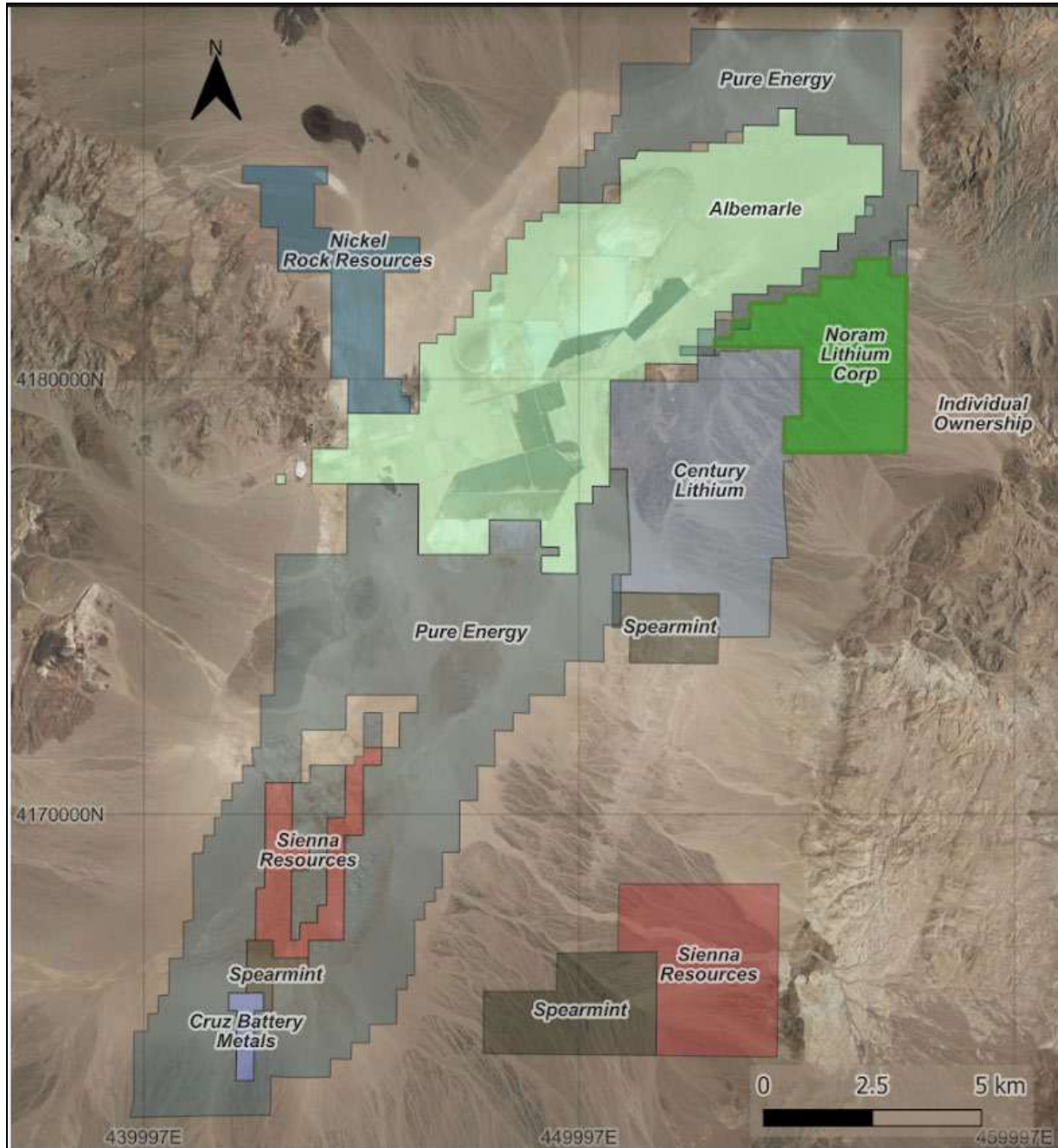


Closeology

There are five known Lithium clay projects that are advancing toward potential commercial production in the Clayton Valley. Some of the projects have completed extensive metallurgical testing.

The *playa* in the center of Clayton Valley was mined for salt as early as 1906, and later explored for potash during World War II. Lithium was noted during the 1950s. In 1964, Foote Minerals acquired leases and began production of Lithium carbonate at Silver Peak by 1967.

Production of Lithium carbonate from brine has continued to the present under several companies, currently under Albemarle Corporation. The Lithium mine in production in Nevada is Albermarle's Silver Peak operation here in the Clayton Valley.



During World War II the area was explored for other minerals and the American Potash Corporation leased the Clayton Marsh. In the 1950s Leprechaun Mining picked up the leases and determined that Lithium was present. In 1964 Leprechaun Mining reached an agreement with Foote Minerals to have Foote reconfigure the silver mill and started Lithium production in 1967.

Lithium has been produced at the valley continuously since 1967. The lithium is extracted from deep wells that pump brines from the basin beneath the Clayton Valley *playa*. The plant has been the only lithium producer in the United States in recent decades.

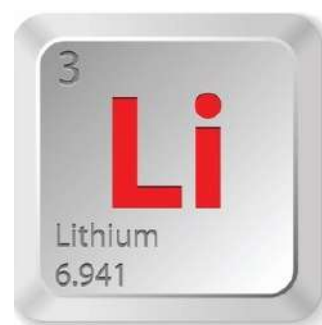
In 1988 Cyprus Minerals acquired the Foote operation and became Cyprus Foote Minerals. In 1998 Chemetall acquired the operation, and the name was changed to Chemetall Foote Corporation. Then in 2004 Rockwood Holdings acquired the Lithium operation. In 2010 a project funded in part by a \$28.4mn grant from the U.S. Department of Energy doubled the Lithium production. Albemarle Corporation purchased Rockwood Holdings for \$6.2bn in 2014.

The table below shows the players in the Clayton Valley, in some ways the table also represents the north to south distribution of the projects, with clearly less work having been done by those farther away from the motherlode of Albemarle’s operation.

Nevada Lithium Projects			
Company	Project	Mineralisation	Status
Albemarle	Silver Peak	Brine	Producing
Schlumberger/Pure Energy	Clayton Valley	Brine	PEA, Pilot Plant
Century Lithium	Clayton Valley	Clay/Claystone	PFS, Pilot Plant
Lithium Americas	Thacker Pass	Clay/Claystone	POO, Pilot Plant
Ioneer	Rhyolite Ridge	Clay/Claystone	Feasibility, Pilot Plant
Noram Lithium	Zeus	Clay/Claystone	PEA
Sienna Resources	Clayton Valley	Brine	
Spearmint Resources	McGee	Clay/Claystone	Resource
Cruz Battery Metals	Clayton Valley	Brine	

Lithium Brines Formation

Lithium (from Greek: *λίθος*, romanized: *lithos*, lit. 'stone') is a chemical element with the symbol Li and atomic number 3. It is a soft, silvery-white alkali metal. Under standard conditions, it is the least dense metal and the least dense solid element. Lithium ranks 27th in rank of elemental abundance.



Even with this relative scarcity there are a fairly large number of both Lithium mineral and brine deposits, but only comparatively a few of them are of actual or potential commercial value.

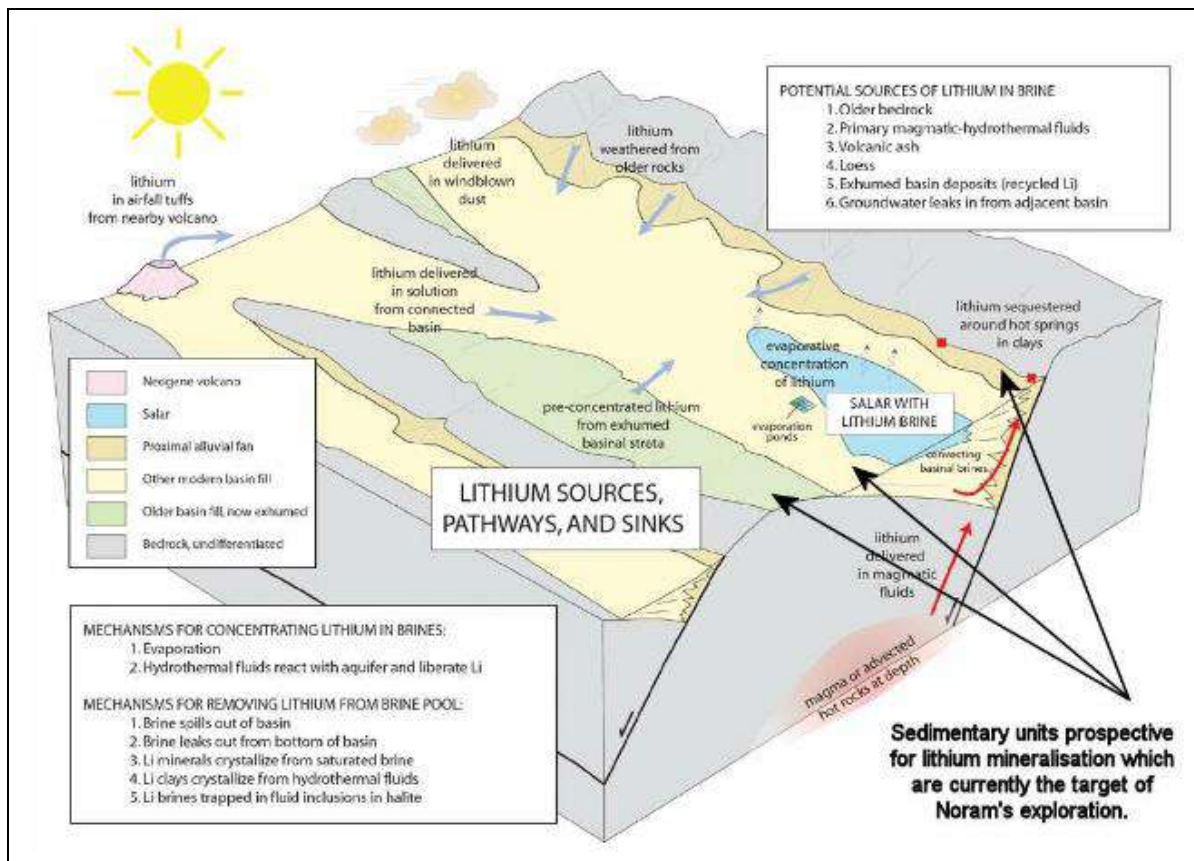
The deposits have been formed because of Lithium’s higher solubility in hot water than most other cations, so it sometimes has concentrated in flowing and cooling magma and/or its accompanying

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aqueous fluids, as well as in evaporating brines. Thus, hydrothermal fluids may be an important Lithium source. The high-Lithium brines usually have obtained most of their Lithium from geothermal waters, with perhaps some of the Lithium coming from surface leaching of volcanic ash, clays or other rocks.

However, Lithium is very difficult to leach from the lattice structure of all rocks and minerals, so little is dissolved unless the water is very hot.

The deposit type that is the focus of Noram's efforts at Zeus involves the production of lithium from *playa* lakebed sediments that have been raised to surface or near surface through block faulting. High evaporation rates at the playa surface, in combination with geothermal activity from hot crustal rocks underlying the basin, results in concentration of lithium in brine in the upper strata, leading to adsorption of lithium ions to interstitial sites within the clay particles. Seismic surveys have identified a well-developed fracturing and faulting pattern, resulting from tectonic extension that forms a conduit network for upward fluids migration.



Source: Bradley 2013

Exploration

The occurrence of Lithium in sediments of Clayton Valley was reported as early as the 1970s by the

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United States Geological Survey.

The high-grade core of the Zeus deposit outcrops at surface and consists of a layer of high-grade material approximately 60 metres thick, 1200 metres wide and 3000 metres long.

Noram has undertaken exploration on the property for lithium has been since the spring of 2016. The exploration work to date has included three phases of surface sampling and six phases of core drilling.



Phase I drilling occurred in December 2016 and January 2017. In all, 46 short diamond drill holes were drilled using backpack-style rigs for a total of 659.6 meters). Most of the holes were relatively shallow at between 9.1 and 15.2 metres. The drilling resulted in an inferred resource of 17 million metric tonnes reported in the NI 43-101 report in July 2017.

The Phase II drilling was completed in April and May 2018. It consisted of the deepening of nine of the core holes drilled during Phase I. The previous holes were not re-entered but were drilled from surface for a total of 739.4 metres.

The campaign of Phase III drilling commenced in November 2018 and was completed the following month. It consisted of 16 holes, again relatively shallow, with an average depth of 29.2 metres for a total of 467.9 metres. The objective of the program was to drill these shallow holes and later deepen the encouraging ones. The results from drilling Phases II and III provided the data to complete the third NI 43-101 report dated in February of 2019.

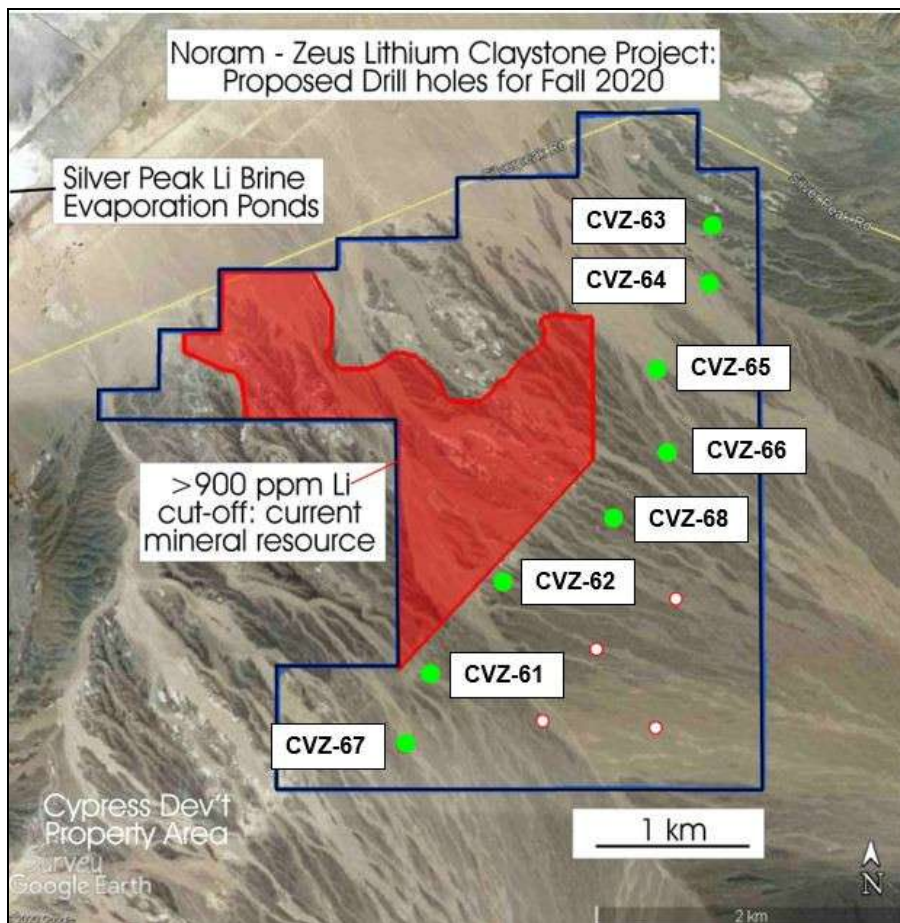
During the Phase IV drilling, which was completed during October and November of 2019, six core holes were deepened. These holes had been drilled to approximately 30 metres as part of Phase III with the

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idea that the most promising drill holes would be deepened in Phase IV.

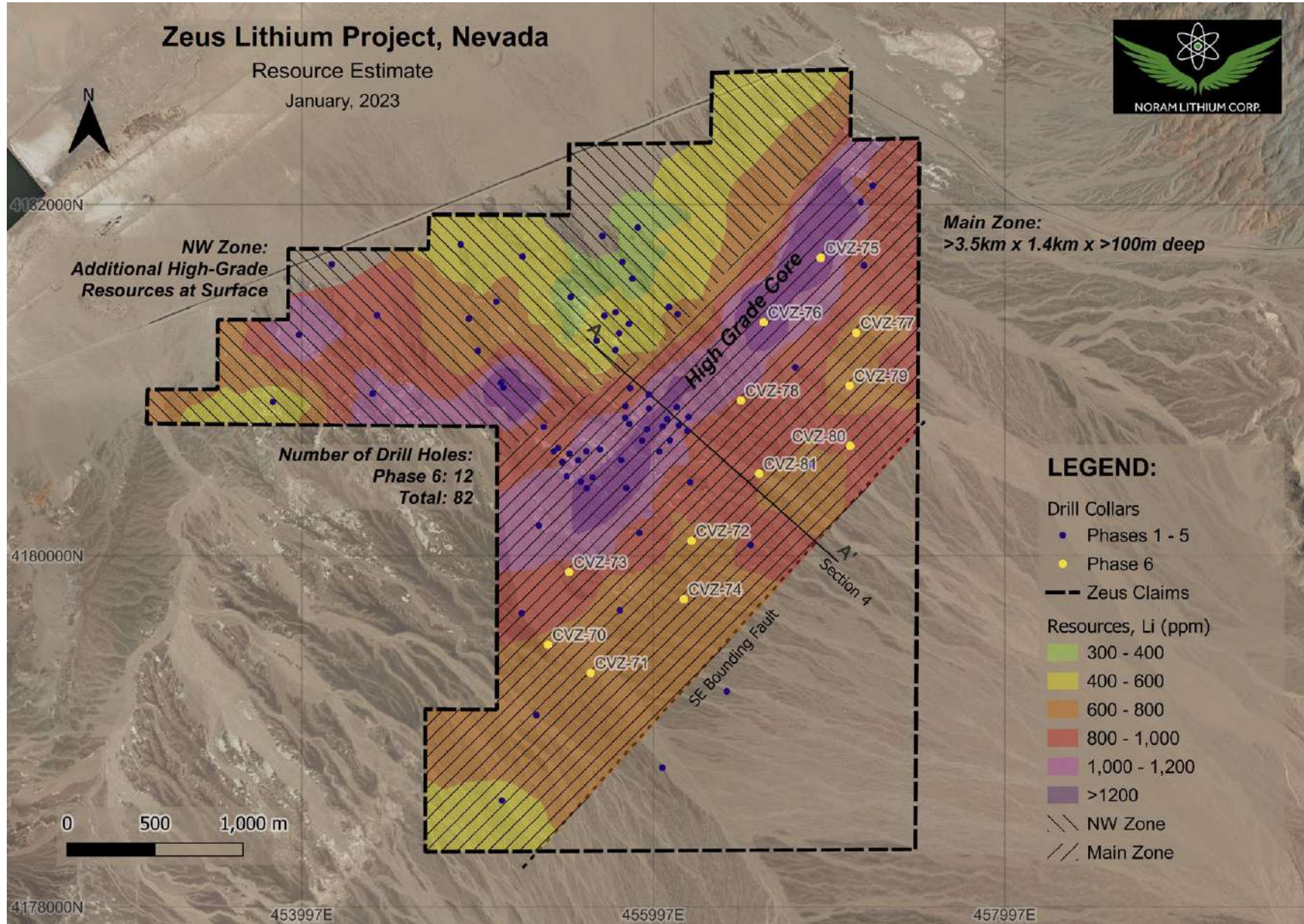
The Phase V drilling campaign was wound up in early 2021 with assays released in late April of that year. These included the results from core hole CVZ-68 which provided what was believed to be the best assay results for the Zeus property to date. It contained 398 feet (121.0 m) from 109-506 feet (33.2-154.2 m) at an average grade of 1018 ppm Li. This interval included 250 ft (76.2 m) from 216-466 ft (65.8-142.0 m) with an average of 1151 ppm Li.

The hole in question can be seen on the map below out to the right of the (then) resource area.



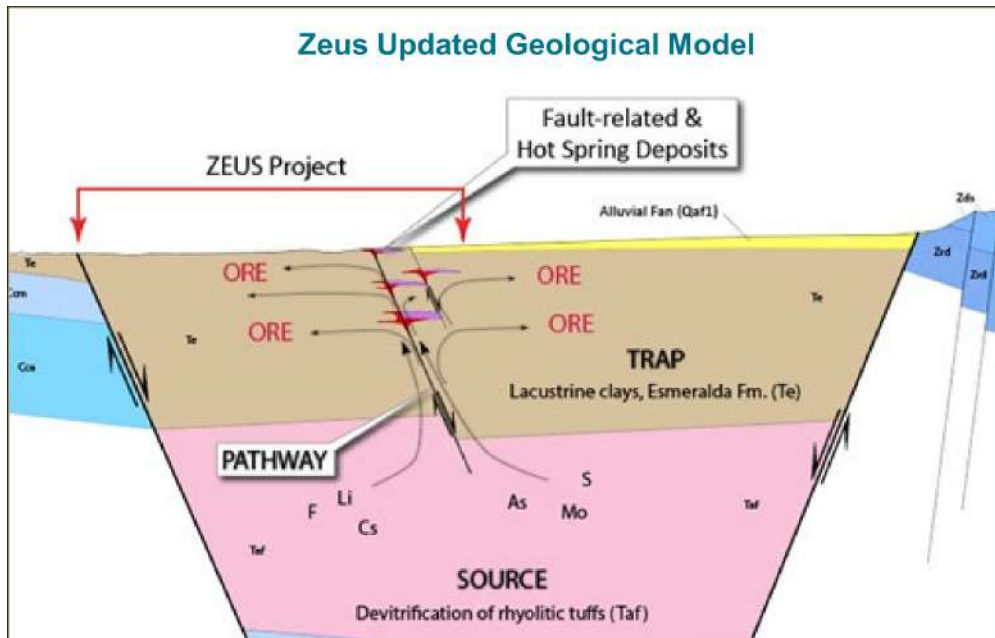
In 2022, Phase VI drilling (shown in photo that follows) was initiated and successfully completed. There has not been any significant geologic work on the Zeus Claims in the last few years, except for geologic logging of drill holes. Phase VI drilling was a program entirely comprising infill drilling to previous phases; core logging used previously identified units and no new geologic concepts were realized.

Thus, until January of 2023, there had been six phases of drilling, encompassing 82 drill holes at the Zeus project for a total of 4,863.82 meters (15,958.19 feet) and an average depth of 59.31 meters (194.61 feet). The map on the following page shows the outcome of those drilling campaigns.



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In November 2023, a ten-hole drill program began which was designed to test for the presence of a second high-grade layer, increase the drill density in the high-grade core of the deposit and complete step-out drilling to the south-east and north-west to validate the geological model (shown below).



In management's opinion this updated model improves confidence in the continuity of high-grade core.

That drilling program was completed in late January with 10 holes drilled for a total of 2,060 meters of diamond core drilling. The highlights of this campaign were:

Hole CVZ-085 with:

- 86.3 meters at 1,108 ppm Li from 19.2 meters to 105.5 meters, including:
 - 9.2 meters at 1,671 ppm Li from 55.6 meters to 64.8 meters

Hole CVZ-086 with:

- 98.0 meters at 1,125 ppm Li from 1.1 meters to 99.1 meters, including:
 - 2.8 meters at 2,234 ppm Li from 30.0 meters to 32.8 meters
 - 8.5 meters at 1,698 ppm Li from 37.8 meters to 46.3 meters

Hole CVZ-090 with:

- 97.3 meters at 1,043 ppm Li from 2.5 meters to 99.8 meters, including:
 - 3.0 meters at 1,620 ppm Li from 43.6 meters to 46.6 meters

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- 5.2 meters at 1,762 ppm Li from 53.8 meters to 59.0 meters

Hole CVZ-091 with:

- 88.5 meters at 1,072 ppm Li from 6.6 meters to 95.1 meters, including:
 - 7.7 meters at 1,689 ppm Li from 48.5 meters to 56.2 meters, and
 - 3.8 meters at 1,579 ppm Li from 64.0 meters to 67.8 meters

The campaign showed strong continuity in the deposit with +1,000 ppm Li from surface down to 100 meters in the high-grade core and that there is a consistent layer of high-grade (+1,500 ppm Li) material 2m to 10m thick over 2.5 kilometers of strike length along the high-grade core.

Extensive surface mapping, core re-logging and field survey work was conducted in 3Q23 by Big Rock Exploration (BRE). Fault related diamictites and hot-spring-related siliceous cherty rocks mapped on surface show the hydrothermal remnants of the origin of the lithium-rich clays at Zeus.

Outcroppings and shallow drilling to a maximum depth of 150 meters formed the basis of the January 2023 mineral resource estimate.

Then in November 2023, Noram launched a ten-hole drill program which was designed to:

- test for the presence of a second high-grade layer at the Zeus project
- increase the drill density in the high-grade core of the deposit
- complete step-out drilling to the south-east and north-west to validate the geological model

This drilling program was completed in late January with 10 holes drilled for a total of 2,060 meters of diamond core drilling. Assay results from the first two holes of the program, CVZ-082 and CVZ-083, showed step out drilling to the north-west has validated the geological model and expanded upon the known high-grade core of the deposit.

Assay results from three further holes, CVZ-087, 088 and 089, showed deeper drilling in the high-grade core had extended the high-grade mineralization, concentrated in the black, sulphidic clay layer below previous drilling depth. Assay results from the four holes confirmed and expanded on the previously announced holes in the high-grade core.

Resource & Reserves

The maiden Mineral Resource for the property was reported in a technical report titled “Lithium Inferred Mineral Resource Estimate, Clayton Valley, Esmeralda County, Nevada, USA” with an effective date in July of 2017. Several updates followed with the resource growing over time. There was a resource in late February of 2019, a further MRE came out in early August of 2020 and then an update in mid-March of 2023.

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Then on the 12th of June of 2024, the company published its latest resource reflecting work carried out on the Zeus project over the last year, including an updated geological model and a Phase VII drilling program completed in January 2024.

This resource featured:

- Indicated Resources of 564 million tonnes grading 956 ppm lithium for 2.9 million tonnes of contained Lithium Carbonate Equivalent (LCE)
- Additional Inferred Resources of 287 million tonnes at 861 ppm lithium; 1.3 million tonnes of contained LCE
- Constraining pit consists of a high-grade core plus a lower grade peripheral halo
- Sufficient high-/medium-grade Indicated Resources to support 29 years of mine-life, plus a potential 18 years of processing low-grade, at a nominal processing rate of 3.5mn tpa

The Indicated Resources within the high-grade core zone of 166 million tonnes grading 1,121ppm lithium are shown in the table that follows:

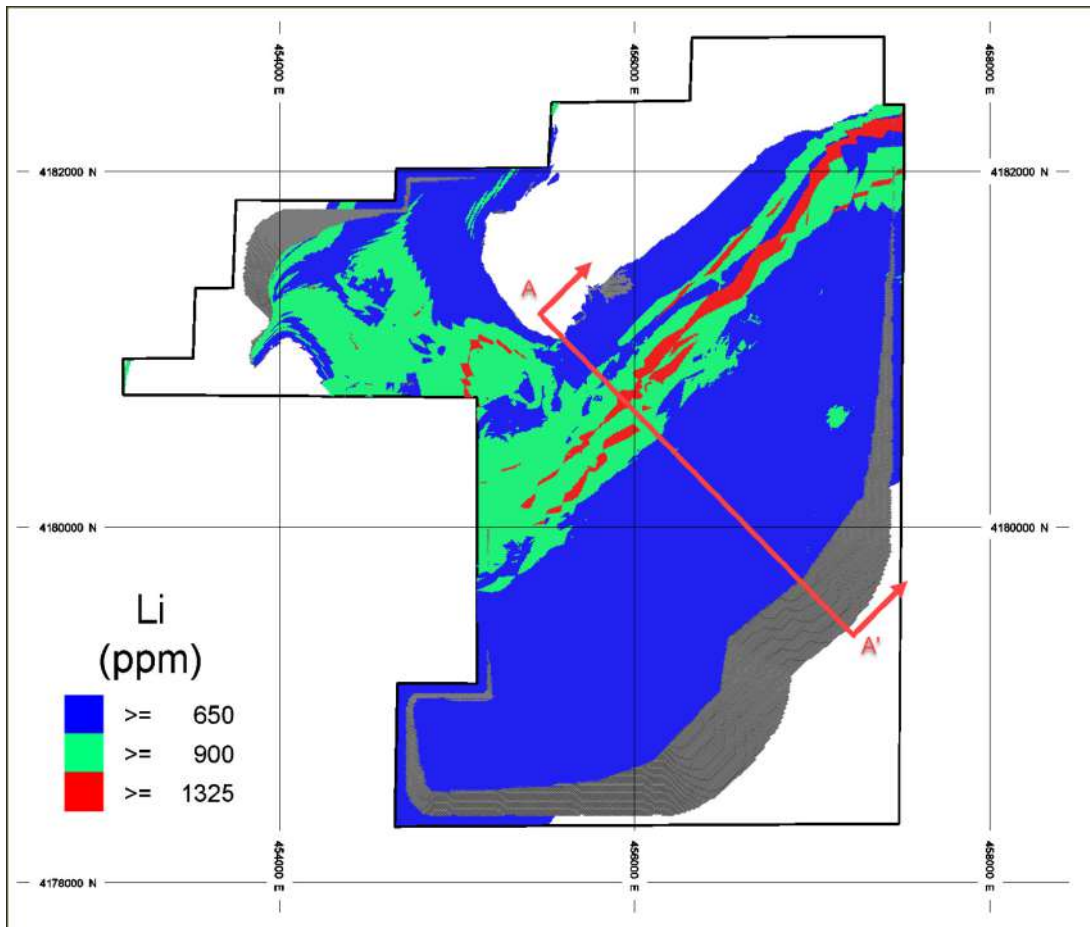
Zeus - High-Grade Core MRE - Indicated Category					
		Mineralisation	Li Grade	Contained Li	LCE
		mn tonnes	ppm	Tonnes	Tonnes
High Grade	>1,325 ppm Li	54	1,496	80,784	429,771
Medium Grade	900-1,325 ppm Li	49	1,108	54,292	288,833
Low Grade	< 900 ppm Li	64	814	52,096	277,151
Total		<u>167</u>	<u>1,121</u>	<u>187,172</u>	<u>995,755</u>

It is important to note the pivot in thinking at Noram prompted by (or prompting) the latest MRE. The focus is increasingly on the high-grade core, which is now expected to form the basis of engineering studies going forward on the Project. At nominal processing rates of 3.5mn tpa and metallurgical recovery of 83%, the goal is now to produce a meaningful US domestic supply of high-purity lithium carbonate (~23,000 tpa) in central Nevada at the Zeus project.

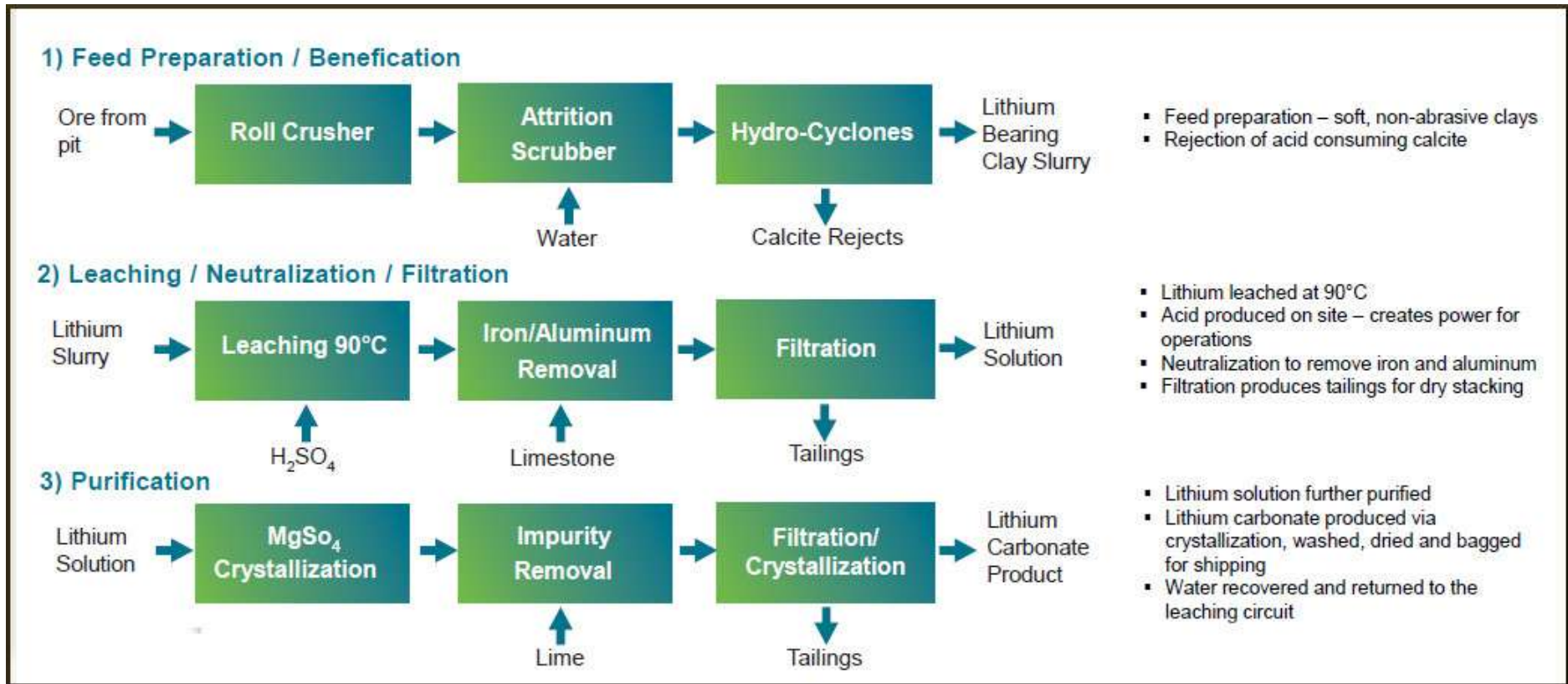
The full MRE (including the Peripheral Halo and the inferred of both zones) is:

Zeus MRE		Dry mass mn tonnes	Li Grade ppm	Contained Li Tonnes	LCE Tonnes
High Grade	Indicated	166	1,121	186,000	989,520
	Inferred	2	1,102	2,000	9,000
Peripheral Halo	Indicated	421	893	375,000	1,998,000
	Inferred	299	859	257,000	1,366,000
Total	Indicated	586	957	561,000	2,987,000
	Inferred	300	861	258,000	1,375,000

Below can be seen the plan view of surface expression of estimated lithium grades in the Zeus block model and constraining pit shell for the MRE.



The Process Proposed for the Zeus Project



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Processing

Sulphuric acid has been shown to be very effective in extracting lithium from Zeus ore.

Excluding high and low outliers, 8 out of 10 metallurgical tests, using 2-hour leach times, had extraction stage recoveries between 82.3% and 90.3%.

Testing to determine post-extraction lithium recovery is still underway. Overall recovery is therefore unknown. Filtration is challenging in parts of the flowsheet, however, technology exists which can separate water and solids sufficiently, and economically at current lithium prices.

Eventual Extraction Technologies

This process requires the development of new lithium extraction processes currently being investigated. Such processes are being tested by competitor companies and Noram has conducted initial testing on bulk samples from its Zeus claims. The processes being tested would extract lithium directly from lithium-rich mudstones and claystone, which occur at the surface over extensive portions of the Zeus claim group. We should offer the caveat that, up until now, globally there are no operations that currently produce lithium from clays on a commercial scale, although several companies are working toward that goal.

Metallurgy & Process Improvements

It is important to note that Noram is NOT relying upon some sort of “secret sauce” for its processing, rather relying on existing proven technologies.

In mid-September of 2023, the company announced various improvements to its envisaged processing flowsheet and metallurgy. In early 2023, Noram initiated a third round of metallurgical testing for Zeus at Kemetco Research Inc. based in Richmond, BC Canada. Since commencement of the program, a number of key results have been obtained to support the process design at Zeus which is based on known technology and is similar to other clay lithium projects in the United States.

The company has developed an integrated mass and energy balance which models the process, from mineralized material coming from the open pit through to high-purity lithium carbonate product. The mass & energy balance is supported by the results from the most recent round of metallurgical testing and will be the basis for the upcoming engineering studies on the project.

Highlights of the process development and laboratory work completed to-date:

- Feed preparation/beneficiation – coarse material (+75 μm) is rejected ahead of leaching, resulting in a 10% reduction in material mass and a 40% reduction in acid-consuming calcite.
- Sulphuric acid leaching - extraction of 89% lithium is achieved with 2 hours of retention time at 90°C.

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- Acid consumption has been reduced by approximately 20% by including a solid-liquid separation post leaching and recycling of the acid solution.
- Iron and aluminum removal - successfully achieved using limestone with only 2.6% lithium loss to the iron-aluminum residue.
- The process residues can be prepared for stable, long-term tailings storage using conventional process equipment.
- Magnesium and sodium can be successfully removed from solution by crystallization with lithium losses of only 2.7%.
- Overall lithium recovery for the process is estimated to be 83%.

Preliminary Economic Assessment

Following completion of the updated MRE, Noram's management expects its consultants to produce a mine plan focused on the high-grade core of the deposit. The mine plan is expected to form the basis of a Preliminary Economic Assessment to be completed in the second half of 2024.

Funding the project

Like other advanced companies in the battery metals space there exists the possibility that Noram could avail itself of funding from the Federal Government under Title 3.

The Class 4 capital expenditure estimate is PFS standard and yet will be included in the upcoming PEA.

A grant could theoretically cover up to 75% of the costs of the FS and the EIA. This would allay fears that the company might erode its currently comfortable cash position.

Lithium – Chronicle of a Shortage Foretold

The Battery Metal boom reached a frenzy in 2022 as the earlier unfulfilled dreams of Lithium developers morphed into the grim reality that government mandates, with strict timelines, had run into the roadblock of a mining community not ready with producing mines. This was due to the Lithium companies largely having run on empty (financially) until 2021-2. The Lithium, Cobalt and Graphite spaces were largely unfunded from 2011 to 2017, and then had a brief renaissance before erroneous Wall Street projections on "satisfied demand" pulled the rug again. In 2021 the OEMs (and governments) received a massive wake-up call that there was a looming Lithium supply shock.

The traditional long lead time of 5-10 years on major projects across the mining space had to be jettisoned as majors (end-users/offtakers/processors/battery makers) jockeyed to get positioned, frequently having to take the reins to ensure timelines were compressed to match the projected voracious unsatisfied demand for Lithium, in particular.

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Booms Aborted

Technically, we have had three battery metal booms now in the space of twelve years. Late arrivals on the scene do not seem to remember (or care to remember) the previous Messianic comings of the “EV revolution”. Each boom has left a legacy and calculating what these legacies are is muddled, particularly if one is/was a shareholder of now-departed Canada Lithium, Altura Mining, Nemaska Lithium or the many fallen in Cobalt space.

The surge of 2009-2010 only brought Lithium to the fore. The previous burnout of Cobalt, before the 2008 Crash, was still too fresh in memories to levitate that metal. Graphite was not yet on the radar but did manage to have a very brief day in the sun in 2013.

Then, in 2017, the market experienced Battery Metal Mark 2 with the conjuncture of Lithium and Cobalt and a plethora of lesser battery metals (e.g. Vanadium and Manganese). Graphite scarcely managed a murmur though. This boom also faded fast. Cobalt collapsed, under the sheer weight of non-serious promotional activities, while most of the Lithium newcomers scarcely raised enough money to sustain (begin?) their exploration campaigns. That boom died the death but left (like the first one) a residue of projects that had moved forward just enough to survive the three years until 2021 brought Battery Metal Mark 3.

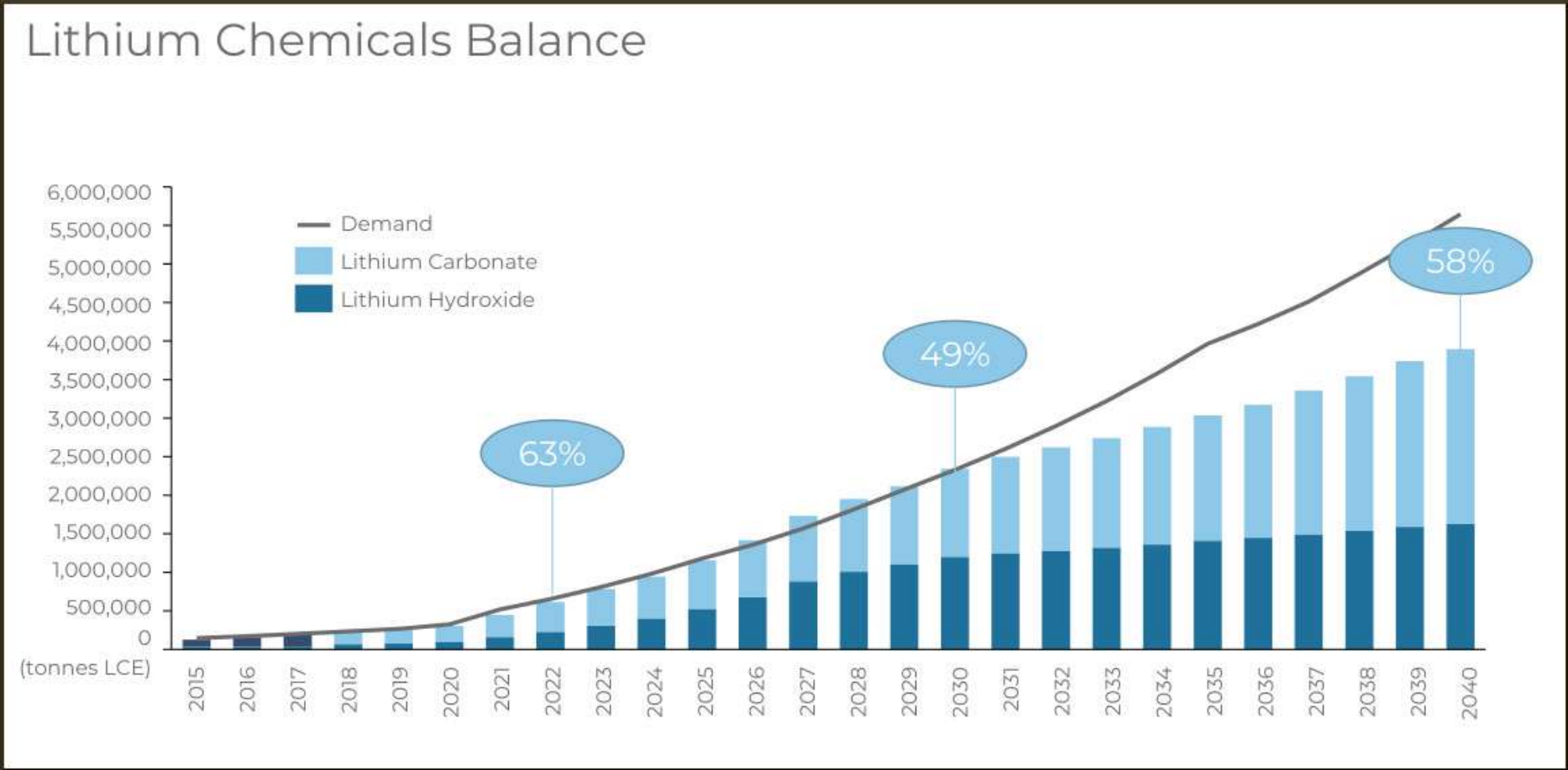
Firing Up Again?

The Great Pause (2017-20) was caused by a combination of a surfeit of non-serious parties (particularly in Cobalt), a sheer lack of money in the mining equity markets and the poor uptake of EV/HEV/BEVs in the Western consumer markets. No-one was going to gear up mega-battery plants (excepting Panasonic disguised as Tesla) just because the Norwegians managed great EV penetration.

Nevertheless, as one can see from the data from Benchmark on the following page, there is a looming deficit in the provision of key Lithium chemicals for the most used battery formulations.

As the fog has cleared the non-Chinese players have finally started to gear up with a massive putsch in Europe and the US (not to mention Korea and Japan) towards creating an EV battery industry that was not China dependent. Much has been achieved, but independence from China is not one of those things. However, the pace of transactions gathered pace during 2022, very much a transition year, and a global EV battery industry is finally appearing from the mist.

Western carmakers are gearing up, led by real demand whereas Chinese carmakers were gearing up based upon subsidies and severe suasion from above.



Source: Benchmark Minerals Intelligence

Wednesday, June 19, 2024

Is the baton passing to the West (in that we include Japan & Korea)? The big Chinese players in Lithium (and in EV/battery production) seem to be suffering a degree of indigestion from overindulgence/overproduction. On the production side, Tanqi seemed to be suffering serious heartburn. Meanwhile companies like CATL are revising their portfolio of exposures to Lithium plays and either rationalizing or taking profits. This is maybe a sign that economic rationality instead of sheer *machismo* is moving to the fore.

Whither the EV Boom?

The EV revolution was always predicated upon users paying more for their new vehicles than they had paid for those ICEs being dispatched to the scrapheap. All this seemed rosy in 2019, but not in 2023, as the world slid into a recession (or at least a serious slowdown). However, we still have government mandates dictating that EVs are in by 2030 (though most moving later now), and ICEs are out, but the hard-pressed consumer is already being ordered to surrender their higher-emission ICEs in major cities, like London, as a *de facto* shakedown by politicians in search of funds.

For these economic groups to remain in the car-owning fraternity will require substantially lower prices for EVs. That in turn will require lower EV battery prices, which cannot be achieved in any scenario of “premium pricing” of EV battery inputs (particularly Lithium).

The affordability issue for EV buyers is crimping (if not stalling) EV sales across Western economies while the price gap is destined to price many lower income consumers out of car-ownership. But the challenge was always a long-term one, not a short-term story of soaring and plunging prices. What we have seen in 2022-23 was essentially the acclimatization to the growth of an industry where the long-term potential is a great unknown.

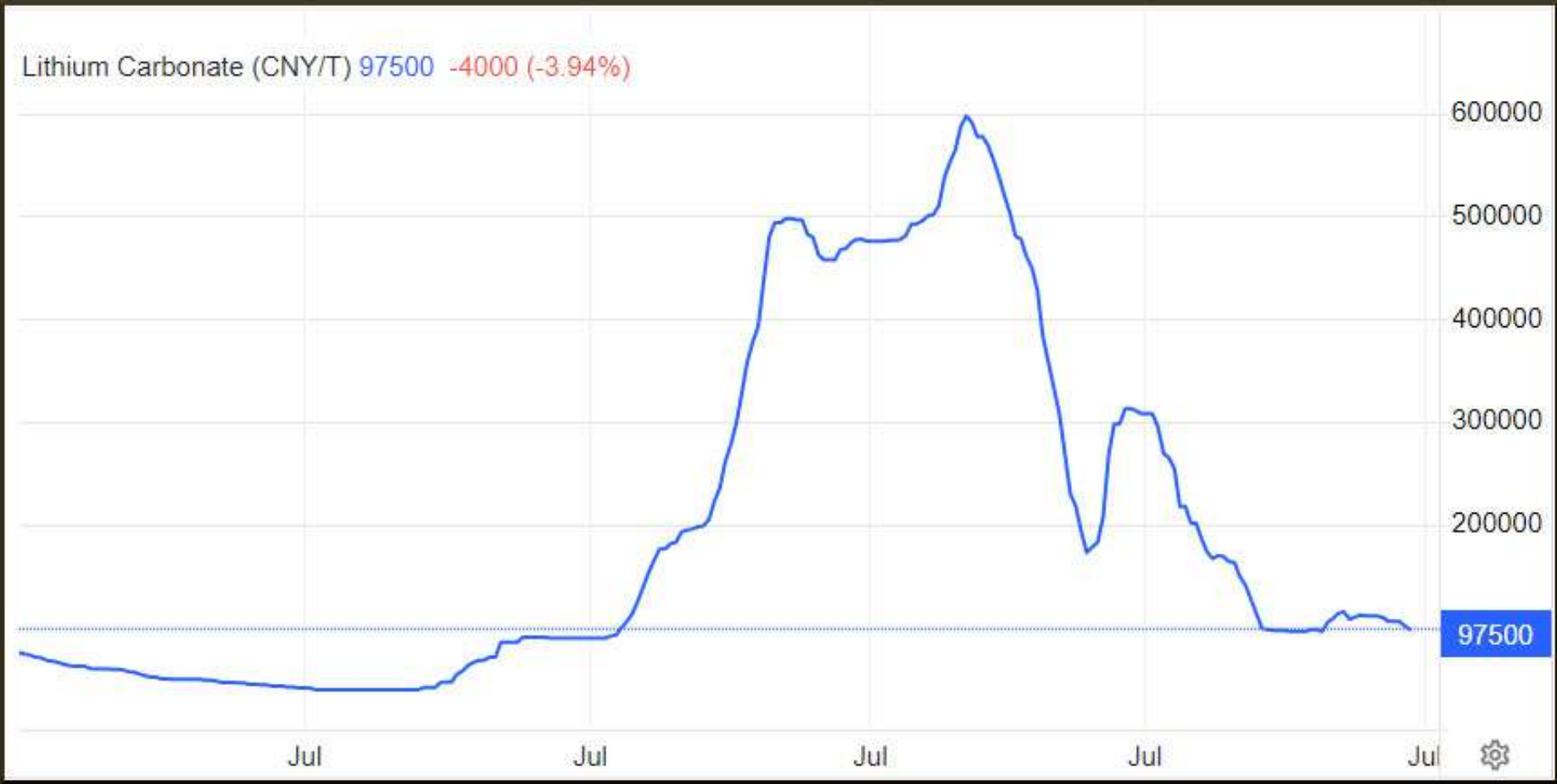
Pricing – Chinese Own-Goal?

Most Western companies watched in bemusement as the price of Lithium for delivery in China soared over most of 2022, Initially they were pleased to see higher prices, but then prices went into an insane overdrive (as shown on the chart on the following page).

This surge resulted in concerns being raised that the inevitable pullback would also pull a rug from under the legitimate companies in the West trying to develop Lithium resources to a production phase. Those concerns proved to be all too prescient.

The peak Lithium price in Yuan was equivalent to around US\$87,000 per tonne, whereas most Western companies were using prices that were a mere fraction of this level in their models for PEAs and PFSs.

In the case of Noram, the price in its calculations in the PFS was 80% lower.



Source: Trading Economics

And yet surely as night follows day, even the most cautious Western Lithium developers have seen their stock prices caught up in the black hole created by feckless Chinese speculation.

Clearly there is further to go as the Lithium price, and moreover the Chinese speculators, have a true Wile E. Coyote moment, finding there is no solid ground under their feet until much, much lower. Clearly there are some very burnt fingers here, and at what point their misery ends remains an unknown. We would expect the price to settle between \$US15,000 - \$30,000 during 2H24. These are price levels at which most of the serious developers are still looking to make substantial returns that exceed the projections of their models.

Firing Up for the Next Leg?

Does this mean that the Battery Boom Mark 3 is over? Are we on the cusp of a new more measured period of more stable prices and production/consumption scenarios? Is this Battery Boom Mark 4 or just the second leg of Mark 3?

The market undoubtedly needed to cool off (but the process has been brutal and quite indiscriminate). Even in the darkest hour though we still saw major deals being done like Alpha Lithium in Argentina and wild bids for Liontown in Australia and a major (successful) offer for Azure Minerals.

The Lithium space still has maybe four times more companies than are needed. One should not confuse the entire universe of supposed Lithium plays with the subset of serious developers (with serious partners) that are moving towards the final goal of production. Noram has shown itself to be within the latter category.

Nevada as a Mining Jurisdiction

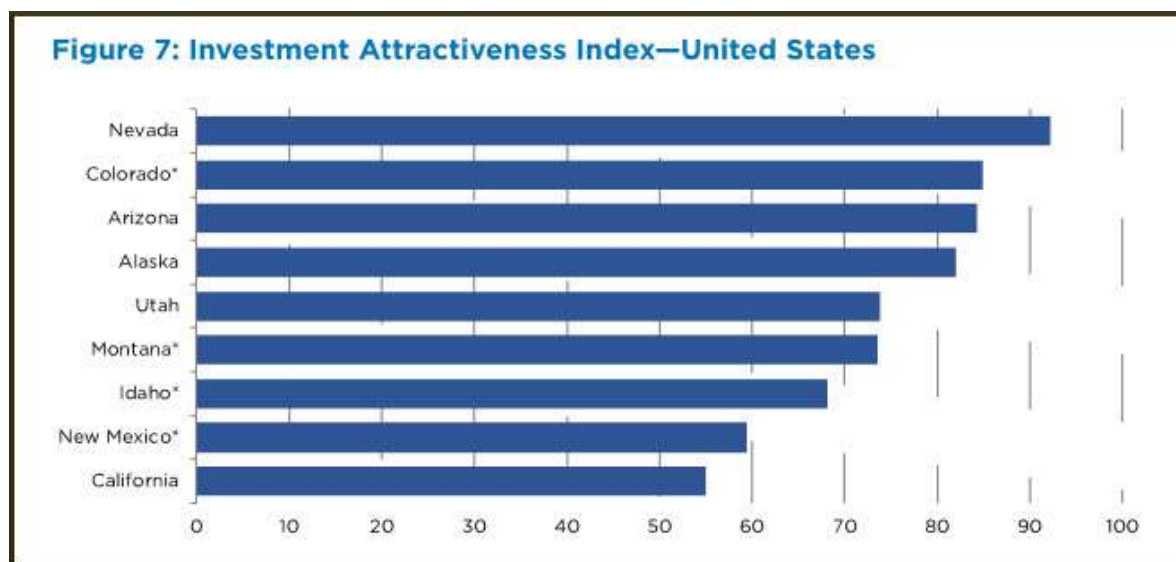
The continual high ranking of Nevada in the Fraser Institute surveys reinforced to investors (particularly in North America) that things closer to home can be not only more convenient, but safer. So, during the period when the gold price was languid (2012-19) investors preferred to focus their dollars on Canada and “friendly parts” of the US, with Nevada at the top of that list. US investors, in particular, have been most highly predisposed towards projects in that country, with Nevada way ahead of other states in investors’ perceptions and affections.

The latest mining survey from the Fraser Institute (the independent, non-partisan Canadian policy think-tank) was that for 2022. However, as the data set went up to November of 2022, the survey came out in mid-2023 and represents the latest version. The survey remains the most respected (though flawed) survey of the fluctuating fortunes of the world’s mining jurisdictions.

In 2023, the top jurisdiction in the world for investment based on the Investment Attractiveness Index was Nevada moving up to displace the previous year’s leader, Western Australia.

The state ranked 1st also in terms of Policy Perception. The state was coming up roses on all fronts with respondents expressing decreased concern over the state’s regulatory duplication (-14 points), taxation

regime (-14 points), uncertainty concerning protected areas (-12 points), and disputed land claims (-12 points).



Nevada continues to rank as one of the most attractive jurisdictions globally for mining investment. In particular, policy factors driving this attractiveness include permitting systems that provide legal and regulatory stability. There is no corporate or personal income tax, no inventory tax, no franchise tax, no unitary tax, and no special intangible tax.

Royalties

In February of 2022, Noram entered into a royalty agreement with Lithium Royalty for the sale of a 1% gross overriding royalty on the Zeus Lithium Project for total compensation of US\$5mn.

“Recent” Financing

The February 2022 royalty deal was part of a bigger US\$14mn strategic financing with Lithium Royalty Corp. and Waratah Capital Advisors Ltd.

Concurrent to the aforementioned royalty agreement, Noram closed a private placement of 13,986,011 shares at a price of \$0.825 per share for gross proceeds of US\$9mn. The main participants were:

- Lithium Royalty Corporation (LRC) subscribing to 2,331,002 shares or approximately US\$1.5mn
- Waratah Capital Advisors Ltd. Electrification and Decarbonization AIE LP (E&D) subscribing to 10,878,011 shares or approximately US\$7mn
- Warren Road Capital Corporation (WRCC) subscribing to 777,001 shares or US\$500,000

This transaction took Noram up to a cash holding of CAD\$18mn at that time.

It is interesting to note that the financing of February 2022 gave LRC, E&D and WRCC the right, but not the obligation, to invest an additional US\$9mn once and only if the common shares of Noram reach CAD\$1.50 per share. LRC, E&D, and WRCC shall have this right for only thirty calendar days from the date Noram's share price reaches CDN\$1.50 per share.

To avoid holding creep, at no point will the total investment by the related equity investors be allowed to increase, in aggregate, over 19.99% of the outstanding share capital of the company.

Shareholders

Waratah/LRC exited their equity position in late 2023 hence the strong volumes at that time. Thus the current shareholder distribution is around 12% Management & Insiders and the other 88% distributed widely amongst non-reporting shareholders.

Board & Management

Sandy MacDougall, Chairman (on medical leave) & Founder, is an Economics graduate of the University of British Columbia has over 30 years of experience in the investment banking and finance industry. He was a former investment advisor at Canaccord Capital Corp. and was involved in numerous significant financings in Canada and abroad for a wide range of companies. His experience includes extensive exposure to precious and base metal projects throughout North and South America.

Cyrus Driver, a non-executive director (and interim Chairman), is a chartered accountant and was a founding partner of the firm Driver Anderson in 1982 and is a retired partner in the firm of Davidson and Company LLP. His wide knowledge of the securities industry and its rules have enabled him to give valuable advice to clients with respect to finance, taxation and other accounting related matters. He currently serves as director and/or chief financial officer of several TSX-V listed companies.

Greg McCunn, CEO & director, has thirty years of extensive experience in mining in both the base metal and precious metal industries. He is an engineer and additionally holds an MBA. He has led multiple junior mining companies from the exploration stage through the transition to project development, permitting, financing, construction and into operations. He was formerly the CEO of a number of TSX and NYSE-listed public companies, including Alio Gold and Galiano Gold and has over a decade of experience as a Chief Financial Officer. As an executive, he has raised over \$600 million in equity and debt financing from the Canadian and US capital markets, completed over \$1 billion in merger and acquisition transactions, and put three mines into production on three continents.

Anita Algie, CFO and Director, has over 17 years of experience in management, listings, compliance, corporate structure and development for exploration and resource-based public companies. She is the former President, CEO and Director of American Lithium Corp. (LI-TSXV) and First Cobalt Corp. (FCC-TSXV) and has served on numerous boards during her career in the public markets and specializes in sourcing, acquiring and developing non grass roots properties. Shee has also successfully completed several CPC Qualifying Transactions with the TSX Venture Exchange.

Arthur Brown, a non-executive director, brings 36 years of business experience to Noram's board. He has served on the boards of eight other companies in sectors ranging from technology to oil & gas and mineral exploration. He has substantial knowledge and experience in corporate structure and development, financings and venture capital.

Dr. C Tucker Barrie, a non-executive director, is an economic geologist with over 30 years of experience as consultant to the mining industry and to governments globally. In recent years, he has served as a senior executive for several TSX-listed companies, providing expertise in the exploration and development of numerous base and precious metal projects, and for critical metals development. He is a researcher in metallic mineral deposits and their host rocks and has published over 70 journal and technical papers. He returned in 2024 to Noram as a Director after serving as its President and CEO during early-stage exploration/development of the Zeus Lithium Project from 2019 to 2021.

Glenn Barr, Vice President - Project Development, has more than 25 years of experience in complex mining project development. His work included leading engineering studies, overseeing metallurgical test work programs and integrating environmental protection measures into project design. He has recently been Vice President, Project Development for Twin Metals in Minnesota State. Previously, he held various roles at Stantec and Teck Resources. As an Engineering Liaison at Stantec, he guided the environmental and engineering consultants in ensuring alignment and work efficiencies. While at Teck Resources, he was integral in the development and commercialization of a novel hydrometallurgical process and was a key member of the team that engineered and constructed a hydrometallurgical processing plant in Brazil. He holds a Bachelor of Science, Chemistry from the University of Victoria.

Risks

The whole Lithium industry finds itself in a different world, with some constants from the previous "boom", but also quite a few things have changed. However, it is worth enumerating some of the risks that may be faced:

- Ongoing weak Lithium prices (though wild fluctuations upwards are also a risk)
- Financing difficulties for mine builds facing players without deep-pocketed partners
- Failure of demand to match rising production (i.e. build it and no-one comes)
- That processing solutions for Lithium clays do not match the expectations of companies operating with these mineralisations

Prices retreated somewhat in late 2016 and then recovered in 2017 despite several projects moving into production. Supply is unlikely to suppress prices at this point as demand is expanding with significant vigour and, as in Lithium 1.0, many of the "likely" projects will not be built as they are in the hands of pure promoters. The biggest "danger" is the overfocus on Chinese spot-prices which have become a hobby horse of speculators in that country creating wild fluctuations to the upside and downside over the last 18 months.

Financing is not coming from markets but from end-users or processors. In the case of Noram Lithium we would see the offtaker being most likely a player in the battery/Gigafactory space allied, or not, with an automaker, headquartered or with operations in the US/North America.

There is softness in EV sales at the current time, but the direction of travel over the long-term is up, and steeply so, in many projections. If anything, greater production will help to keep prices for EVs in the affordable range, which is where they need to be for broad offtake. TOO high prices are the enemies of the EV trend.

With regards to processing technology, we would note that the authors of the most recent Mineral Resource Estimate included the caveat that, up until now, globally there are no operations that currently produce lithium from clays on a commercial scale, although several companies are working toward that goal.

Conclusion

As we noted at the beginning the Biden Administration's *Inflation Reduction Act* as a vehicle to kickstart the Green Revolution in the US, has tipped the playing field to advantage US-based projects in a radical alteration to the *status quo* in the global Lithium space.

Over the last decade, since the fading of the first Lithium boom in 2010, the complications of spodumene extraction and processing have created a major pivot towards producers from non-hard rock sources, whether they be brine from *salaras*, from unconventional sources or from clays.

Lithium developers in Nevada, like Noram Lithium, are having their day in sun, with US investors in particularly seeing an inherent advantage arising from being a Lithium mining operation based not just in North America but also in the United States. If the Lithium conversion and end-use industries (i.e. batteries) should be the beneficiary of Washington's largesse, then it would be illogical to not also officially sponsor the evolution of a greater US sourcing of the raw inputs of the battery value chain.

We are initiating Noram Lithium with a **LONG** rating and propose a 12-month target price of CAD\$0.84, which while a significant uplift from the current level, is only slightly above the 12-month high. However, one must be cognizant that there is a long climb ahead out of the hole into which stock prices of even good companies have fallen.



Important disclosures

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