



# CORPORATE UPDATE

NOVEMBER 2018

# CAUTIONARY STATEMENT



Certain statements contained in this presentation, including all statements that are not historical facts, contain forward-looking statements and forward-looking information within the meaning of applicable securities laws (“forward-looking information”). Such forward-looking information includes, but is not limited to, statements or information with the respect to the overall objectives and strategic plans, work programs, exploration budgets and targets and mineral resource estimates of Pure Energy Minerals Limited (“Pure Energy” or the “Company”). Readers should review all of the Company’s public disclosure including its most recent Annual Information Form and the risk factors contained therein, the technical reports on its properties, and its audited financial statements and Management's Discussion and Analysis (MD&A), all as filed on [www.sedar.com](http://www.sedar.com) from time to time.

Forward-looking information includes, but is not limited to, statements related to activities, events or developments that the Company expects or anticipates will or may occur in the future, including, without limitation; statements related to the Company's release of the PEA Technical Report (“PEA”) for the Clayton Valley Lithium Project (“Project”); the economic analysis of the Project; the mineral resource estimate for the Project; the estimated annual production of LiOH-H<sub>2</sub>O and LCE; the availability and development of more sustainable technologies for use at the Project; the expected mine life; the estimated NPV of the Project; the estimated IRR of the Project; estimated average operating costs; estimated capital costs; estimated EBITDA; the estimated payback period for the Project; the estimated timeline for construction of the Project; the estimated production schedule at the Project; anticipated chemistry of brines at the Project; expected growth in the market for lithium hydroxide; anticipated changes in battery formulation technologies; estimated market prices for lithium hydroxide; anticipated lithium recovery levels at the Project; expected pilot plant testing at the Project; design work at the Project; and the development of a timeline for completion of a feasibility study for the Project. Forward-looking information is often identified by the use of words such as "plans", "planning", "planned", "expects" or "looking forward", "does not expect", "continues", "scheduled", "estimates", "forecasts", "intends", "potential", "anticipates", "does not anticipate", or "belief", or describes a "goal", or variation of such words and phrases or states that certain actions, events or results "may", "could", "would", "might" or "will" be taken, occur or be achieved. Forward-looking information is based on a number of factors and assumptions made by management and considered reasonable at the time such information is provided. Forward-looking information involves known and unknown risks, uncertainties and other factors that may cause the actual results, performance, or achievements to be materially different from those expressed or implied by the forward-looking information.

A number of other factors may adversely impact Pure Energy and the Project, including: the Company’s inability to complete further mineral resource and mineral reserve estimates; the inability to complete a subsequent feasibility study; the inability to anticipate changes in brine volume or grade due a number of factors; changes to the economic analysis; the failure to obtain necessary permits to explore and develop the Project; environmental issues or delays; inability to successfully complete additional drilling at the Project; and inability to obtain financing for future exploration and development work and construction of a plant at the Project. Although Pure Energy has attempted to identify important factors that could cause actual actions, events, or results to differ materially from those described in the forward-looking information, there may be other factors that cause actions, events, or results not to be as anticipated, estimated, or intended. There can be no assurance that forward-looking information will prove to be accurate. The forward-looking information contained herein is presented for the purpose of assisting investors in understanding the Company's plan, objectives, and goals and may not be appropriate for other purposes. Accordingly, readers should not place undue reliance on forward-looking information. Pure Energy does not undertake to update any forward-looking information, except in accordance with applicable securities laws.



**Mineral resources which are not mineral reserves do not have demonstrated economic viability. The category of inferred resource is the least reliable resource category and is subject to the most variability. Until mineral reserves and resources are actually mined and processed, the quantity of mineral reserve and resource grades must be considered as estimates only. Patrick Highsmith MSc., CPG., is a qualified person as defined by NI 43-101, and has supervised the preparation of the scientific and technical information that forms the basis for this presentation. Mr. Highsmith is not independent of the Company as he is a director.**

The PEA is based upon a process flow sheet that may change, which would impact all costs and estimates. Operating costs for the Project were based upon assumptions including future energy costs, water costs, labor, regulatory costs and other variables that are likely to change. Capital costs were based upon plant equipment and other items thought to be necessary for production. Lithium hydroxide monohydrate price forecasts were based upon third-party estimates and management assumptions that may change due to market dynamics. Changes in estimated costs to acquire, construct, install, or operate the equipment, or changes in projected pricing, may adversely impact Project economics.

**The economic analysis included in the PEA is based upon inferred mineral resources only. Mineral resources that are not mineral reserves do not have demonstrated economic viability.** The PEA is preliminary in nature and includes inferred mineral resources that are considered too speculative geologically to have the economic considerations applied to them that would enable them to be categorized as mineral reserves. There is no certainty that the Project envisioned by this PEA will be realized. The mineral resource estimates, upon which the PEA is based, rely upon assumptions outlined in the “Resource Estimate” section of the technical report relating to the PEA. Some figures in the resource estimate may have been calculated using a factor to convert short tons to metric tonnes.



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## **PATRICK HIGHSMITH**

*MSc, CPG; Director*

Senior mining professional with over 25 years multi-commodity experience, including exploration, operations, and business development with BHP Billiton, Rio Tinto, and Newmont.

Founding CEO of Lithium One Inc. and co-engineer of friendly 2012 merger with Galaxy Resources.



## **MARY LITTLE**

*MSc, MBA; Director*

More than 20 years mining industry experience, including senior positions at Newmont, Cyprus Amax, and WMC Ltd. Founding CEO of Mirasol Resources, led a major asset transaction, valuing the project at more than \$60 million.



## **MICHAEL DAKE**

*Co-Founder; Director*

Seasoned junior company start-up specialist. More than 15 years of PubCo experience in investor relations and market advisory roles. Led and supported numerous successful capital raises.



## **FRANK WELLS**

*MBA; Director, Interim CFO*

Over 35 years of experience as a financial analyst, business development specialist, financial officer, and director including senior positions with Santa Fe Pacific Gold, Newmont, and Central Asia Metals Ltd. Extensive financial modeling experience in lithium, gold, copper, lead-zinc, rare earth elements, and chromite sectors



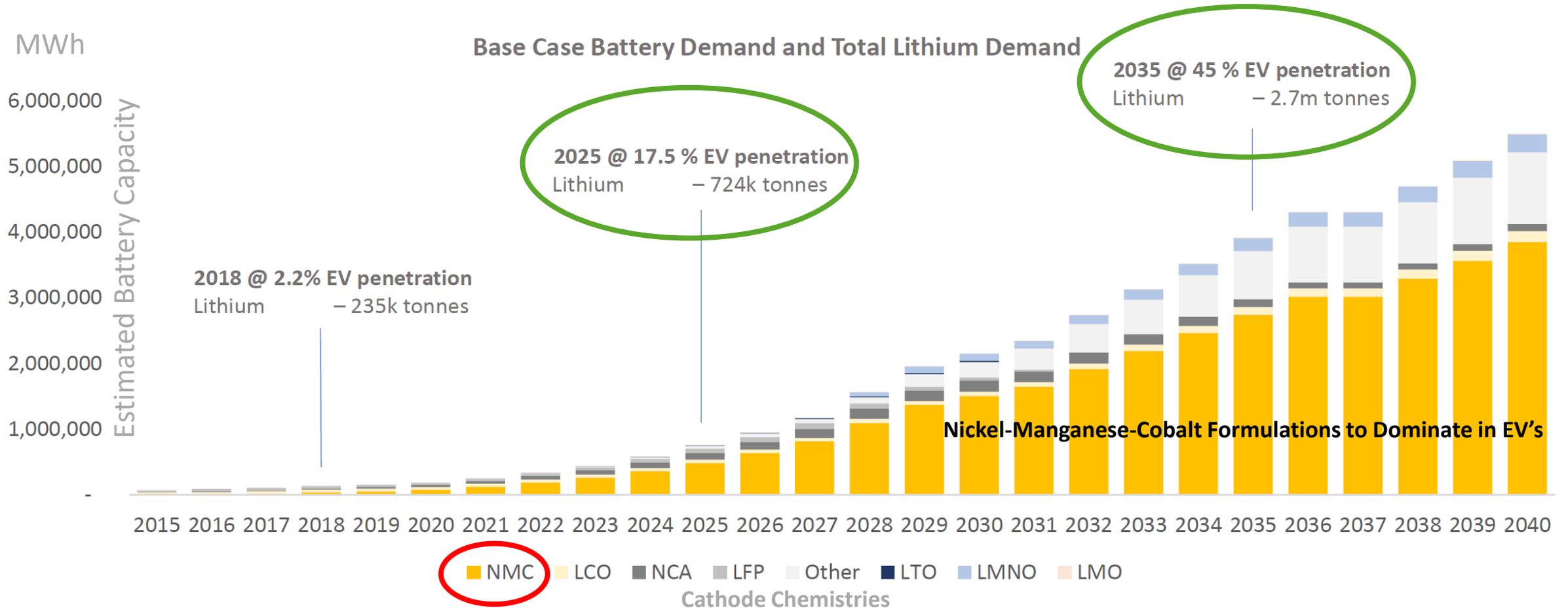
## **WALTER WEINIG**

*MSc, PG, PMP; Vice President*

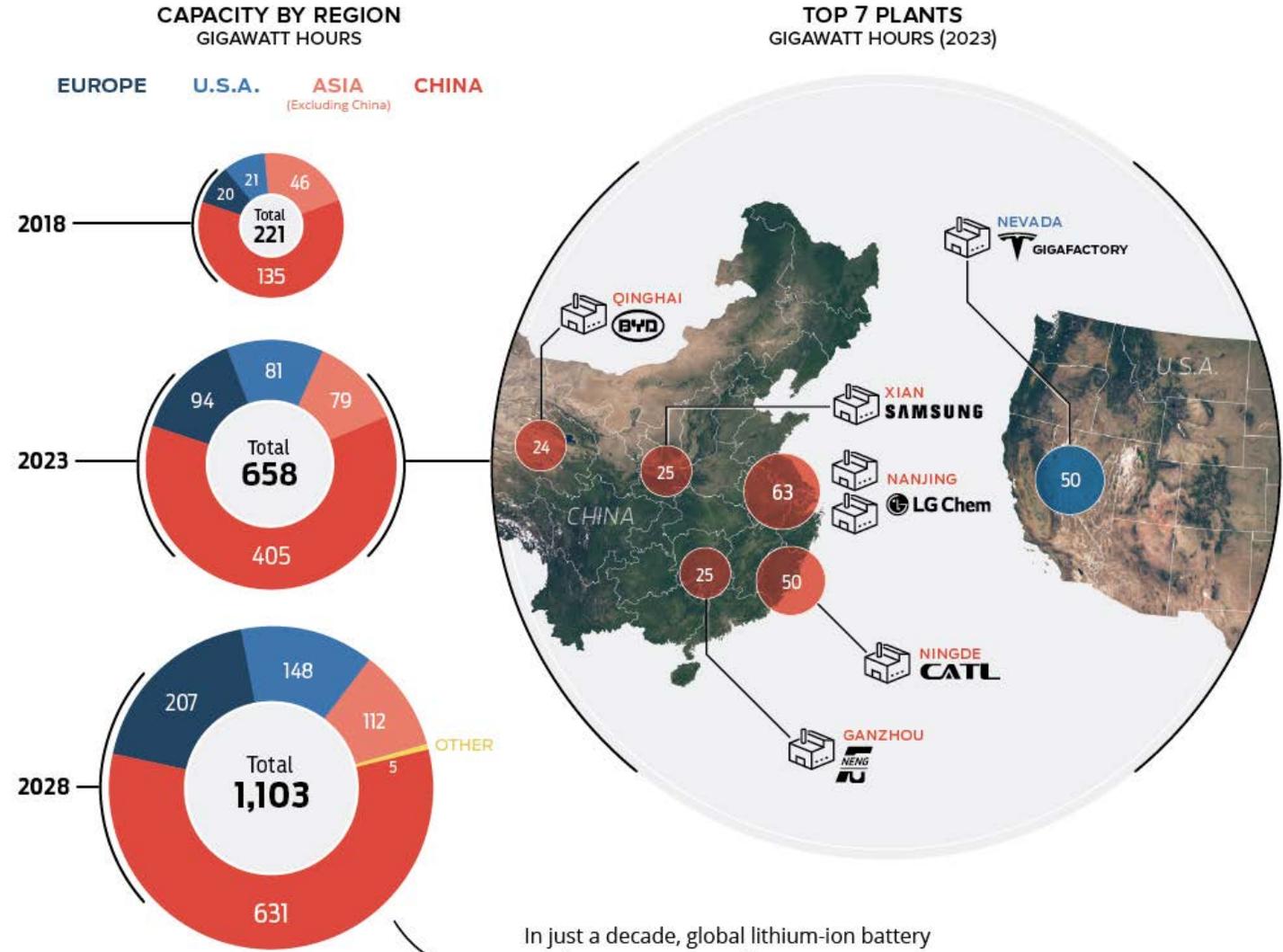
Over 30 years of experience in mining hydrogeology, permitting, and project management at sites around the globe. Held senior positions at large and small technical consultancies and operations director at a scientific research facility hosted in a closed underground gold mine.

# THE BATTERY BUSINESS IS GROWING AND RELYING ON LITHIUM

THE SMART FORECASTERS SEE THE MOVE TO NMC CATHODES AND LITHIUM HYDROXIDE



# MUCH MORE THAN JUST TESLA! 1.1 TWh ANNOUNCED (SO FAR)

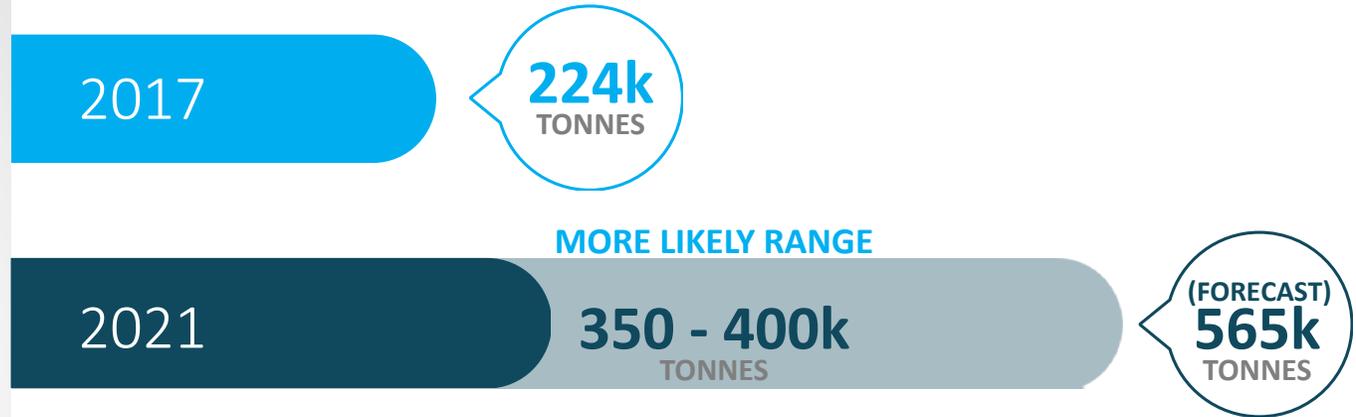


In just a decade, global lithium-ion battery production capacity will increase **399%** to surpass the **1 TWh** mark.

MORGAN STANLEY  
FORECASTS HUGE  
RAPID GROWTH IN  
SUPPLY...

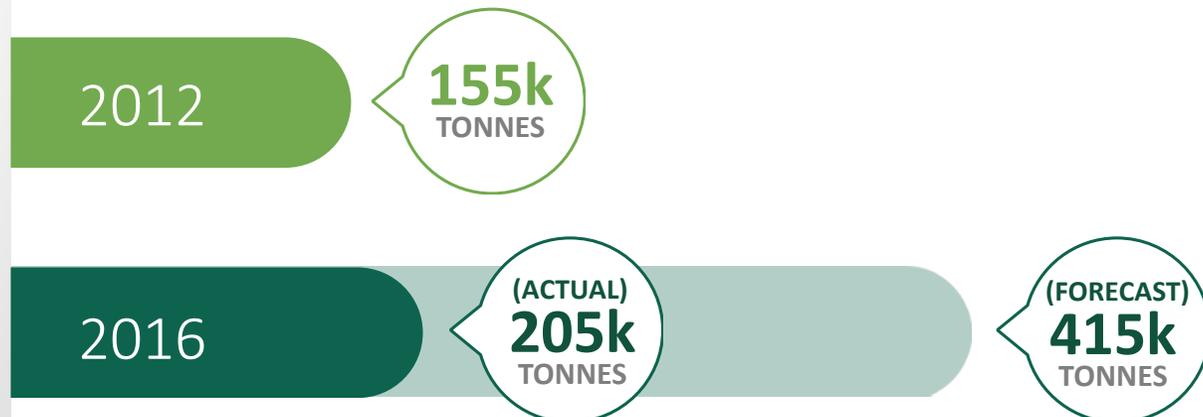
**WHAT IF HISTORY  
REPEATS ITSELF?**

### Morgan Stanley Forecast Lithium Supply (2017-2021)



ACTUAL SUPPLY IN 2021 AND BEYOND MAY FALL WELL SHORT OF FORECASTS

### Historical Lithium Supply Forecast vs. Actual (2012-2016)\*



\* - Orocobre corporate presentation, May 2017



## World-Class Infrastructure

Power Lines, Roads, and North America's Only Lithium Producer...

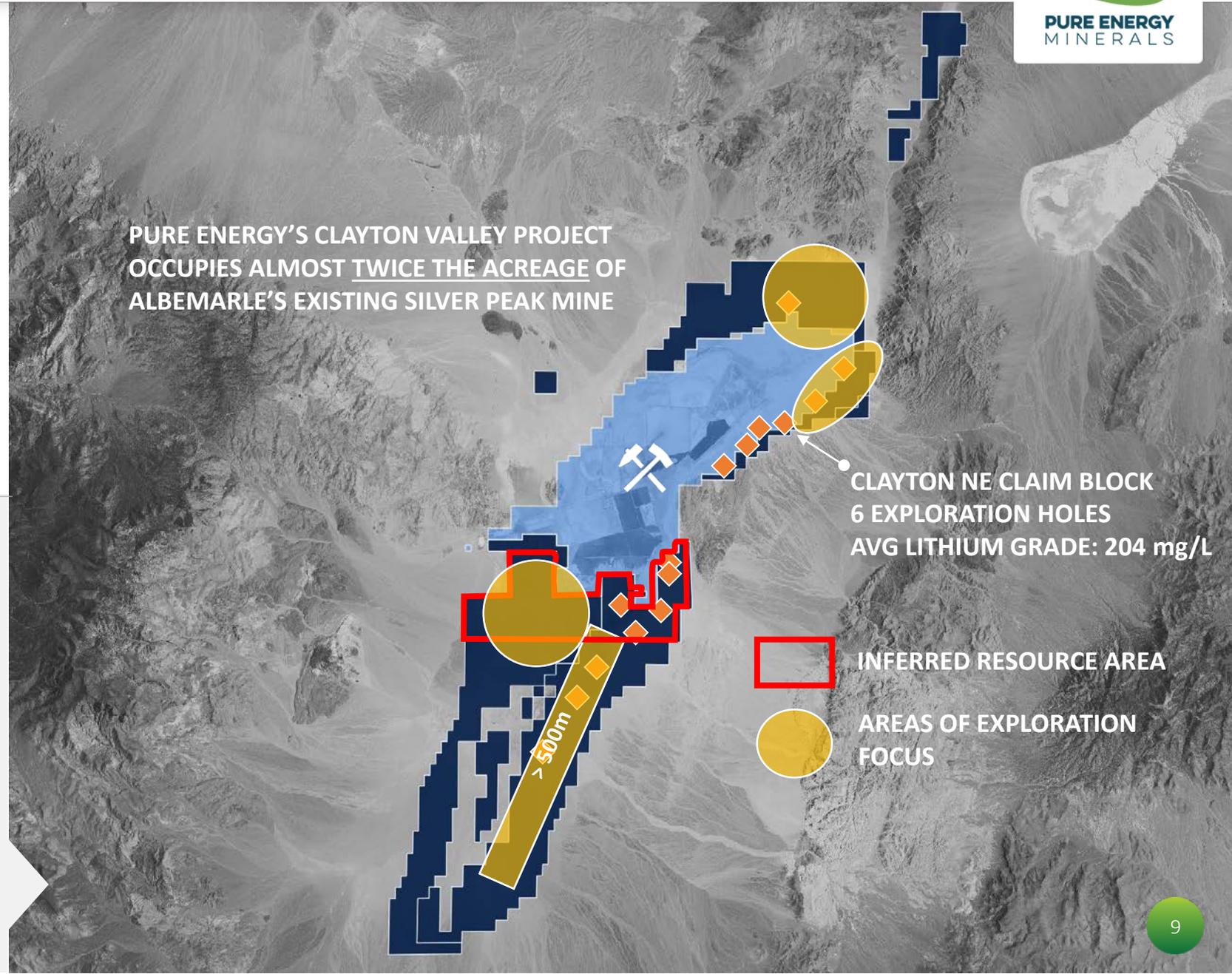
# CONSOLIDATED LAND POSITION: THE CLAYTON VALLEY PROJECT DOMINATES THE BASIN



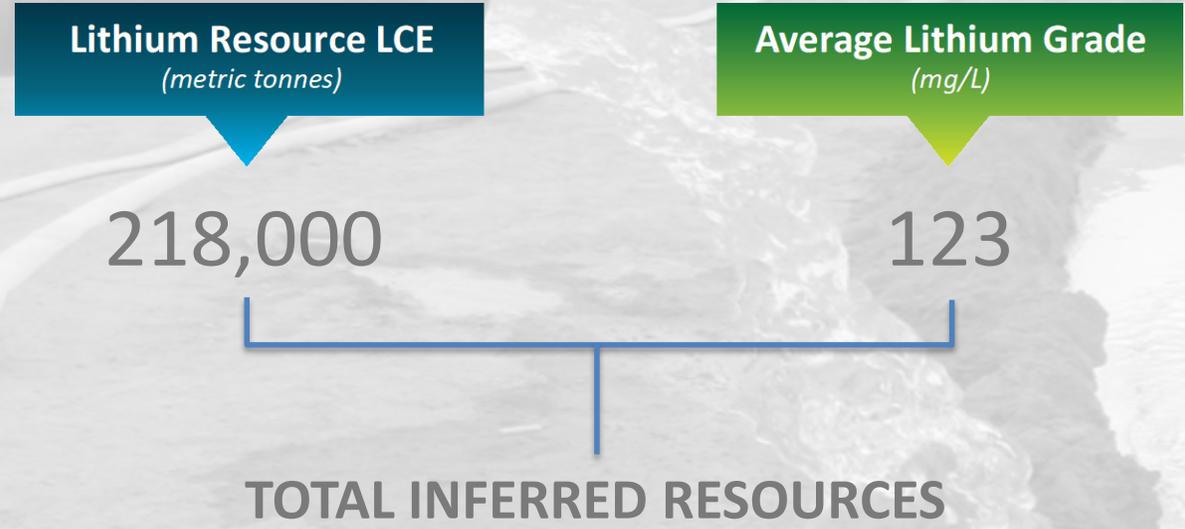
## EXPANDED PURE ENERGY CLAIMS:

**TOTAL: 23,360 ACRES  
(9,450 HECTARES)**

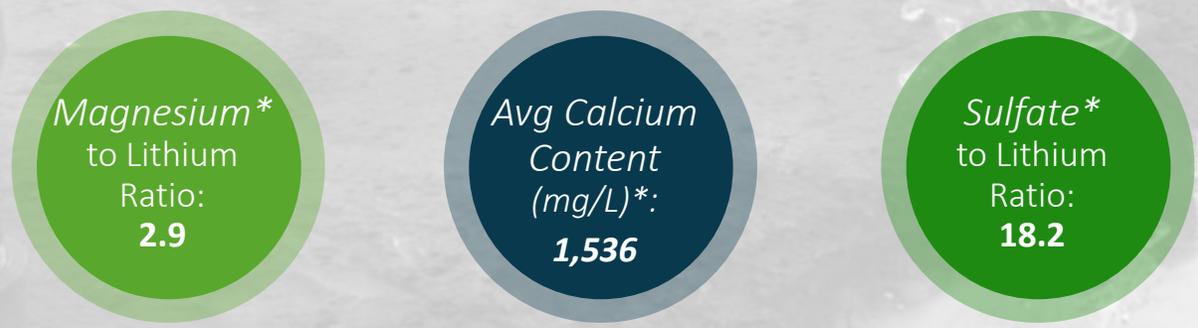
-  Pure Energy Claims
-  Albemarle Silver Peak Mine (~13,000 Acres)
-  Exploration Holes & Wells



## RESOURCES & KEY TECHNICAL PARAMETERS



## WORLD-CLASS CHEMISTRY



\* Chemistry derived from global average calculations from database, June 2017

**NOTE:** Mineral resources that are not mineral reserves do not have any demonstrated economic viability. Inferred resources are the least reliable resource category and are subject to the most variability. Please see the Company's full technical report at [www.sedar.com](http://www.sedar.com) or [www.pureenergyminerals.com](http://www.pureenergyminerals.com) for details on how the resource was derived and for the reporting details in terms of lithium metal (Li) and lithium hydroxide monohydrate (LiOH•H<sub>2</sub>O).

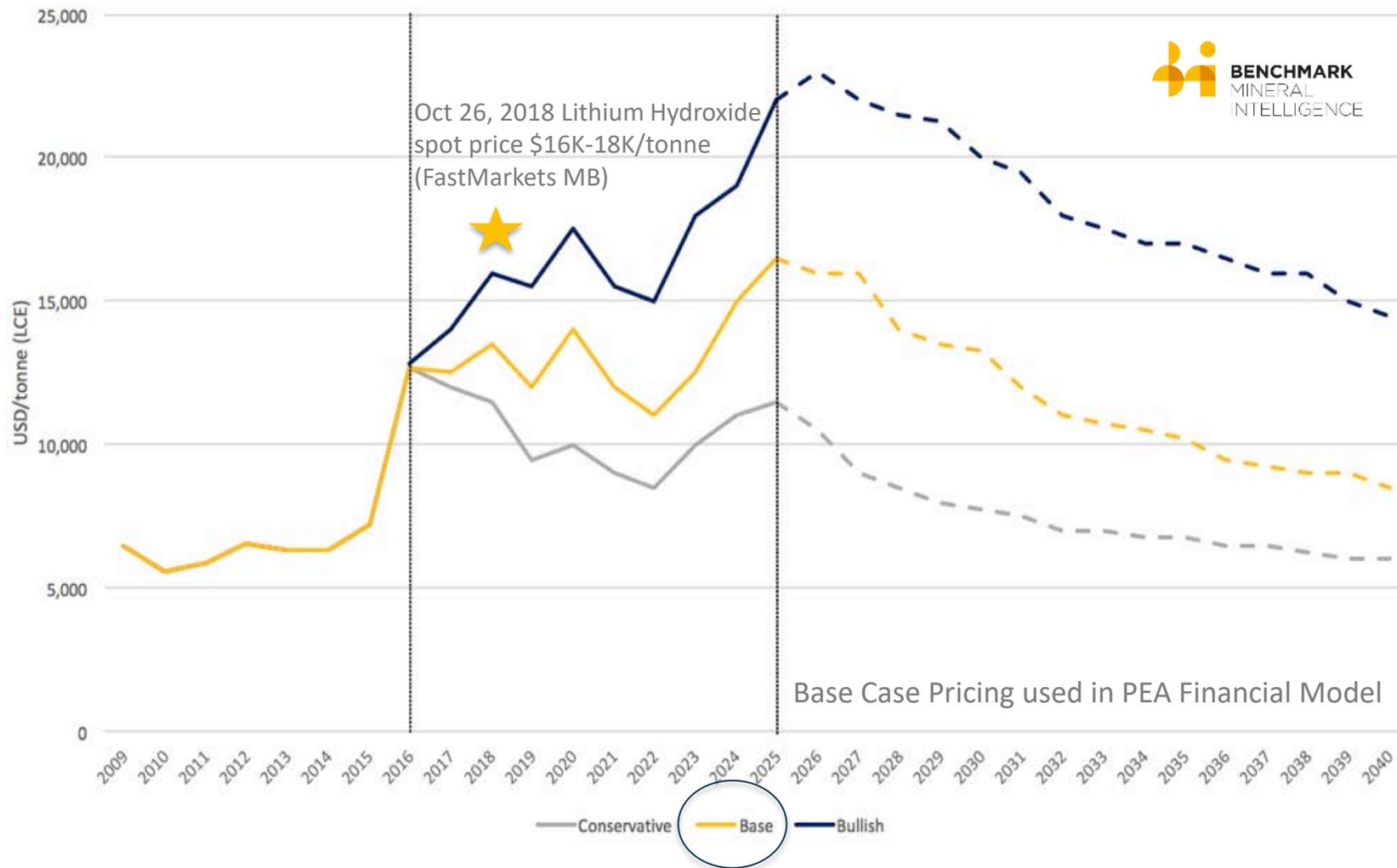


<b>Key Project Economic Indicators (Currency in US \$)</b>	
Average Annual Production (Lithium Hydroxide)	<b>10,300 tonnes</b>
After Tax - Net Present Value (8% Discount)	<b>\$264 million</b>
After Tax - Internal Rate of Return (IRR)	<b>21%</b>
Mine Life	<b>20 years</b>
Annual Project EBITDA* (name plate production)	<b>\$100 million</b>
Total Initial Capital Costs (30% Contingency)	<b>\$297 million</b>
Direct Operating Costs LiOH·H <sub>2</sub> O (Steady State)	<b>\$3,217/tonne</b>

\* - The economic analysis is based upon inferred mineral resources only. Mineral resources that are not mineral reserves do not have demonstrated economic viability. This PEA is preliminary in nature and includes inferred mineral resources that are considered too speculative geologically to have the economic considerations applied to them that would enable them to be categorized as mineral reserves. There is no certainty that the Project envisioned by this PEA will be realized

\*\* - EBITDA is a non-IFRS earnings measure which does not have any standardized meaning prescribed by IFRS and therefore may not be comparable to EBITDA presented by other companies. EBITDA represents earnings before interest expense, income taxes, depreciation and amortization. Investors are cautioned that this non-IFRS financial measure should not be construed as an alternative to other measures of financial performance calculated in accordance with IFRS.

## A Dynamic Pricing Model Based on Real Market Analysis



### KEY ASSUMPTIONS:

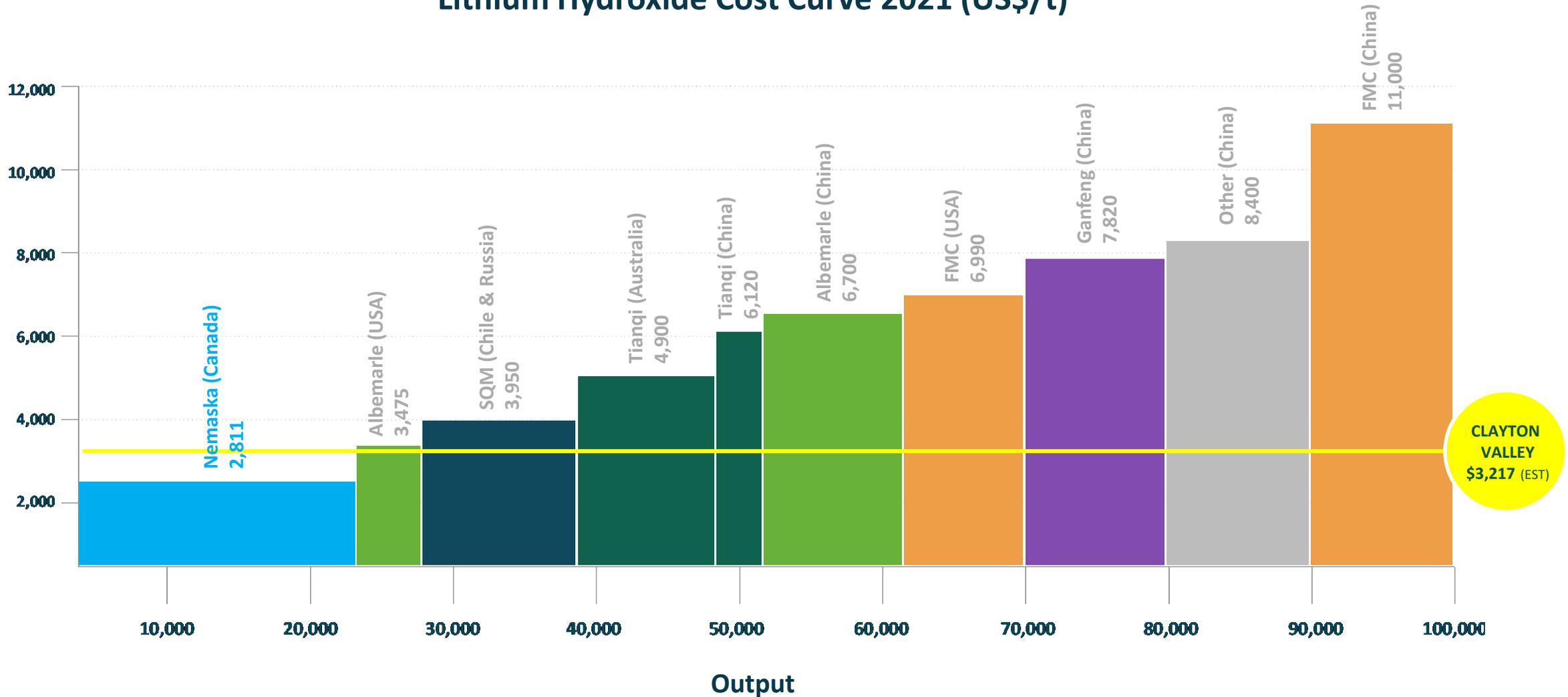
**100% Equity Financing**

### Production Ramp-up over ~15 months:

- 4,100 tonnes LiOH•H<sub>2</sub>O in 2021
- 10,800 tonnes LiOH•H<sub>2</sub>O in 2022
- 11,400 tonnes LiOH•H<sub>2</sub>O in 2023

**Effective Tax Rate of 20%**

## Lithium Hydroxide Cost Curve 2021 (US\$/t)



CLAYTON VALLEY PROJECT



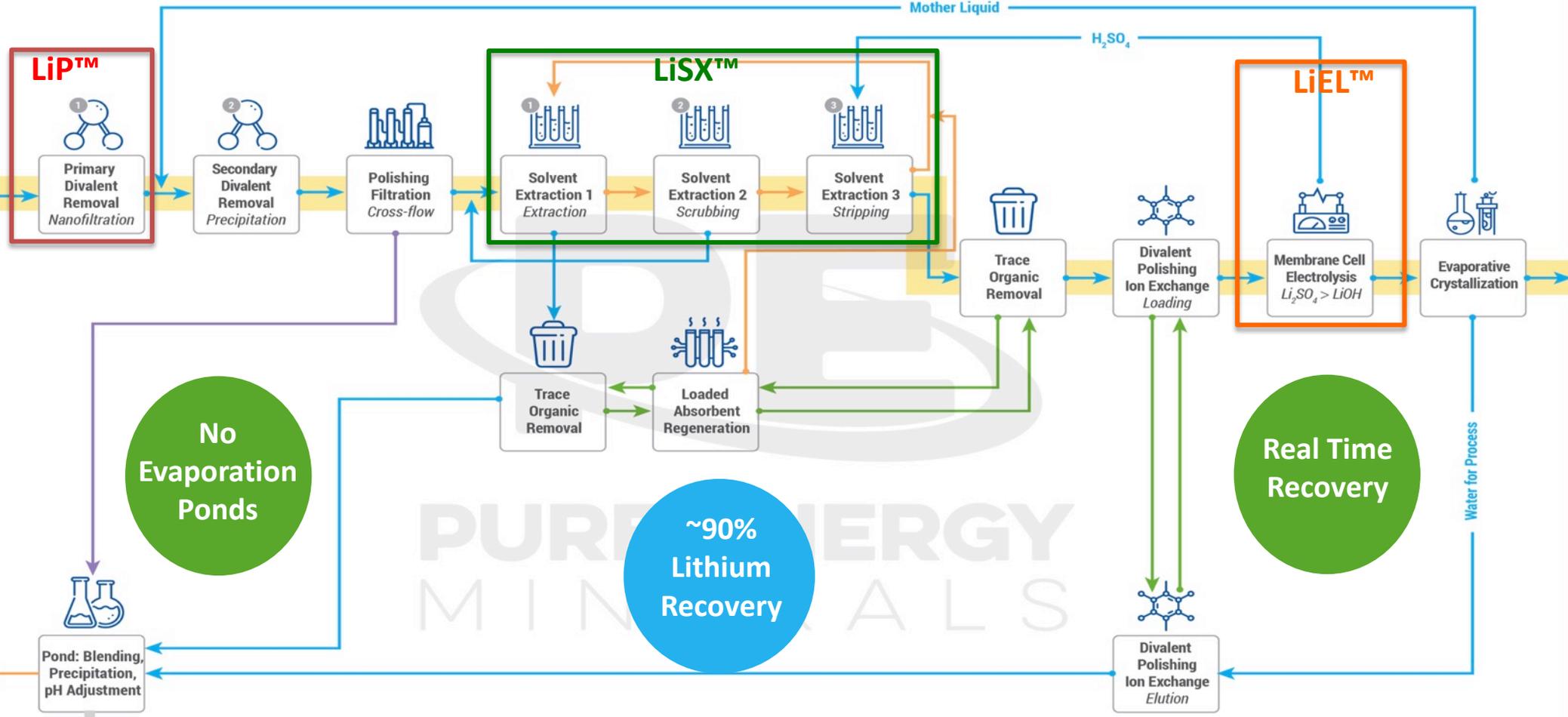
# THERE IS A BETTER WAY: BETTER, FASTER, AND GREENER LITHIUM RECOVERY!



PUMP FROM WELLFIELD

SEDIMENT REMOVAL - FILTRATION

RETURN TO BASIN

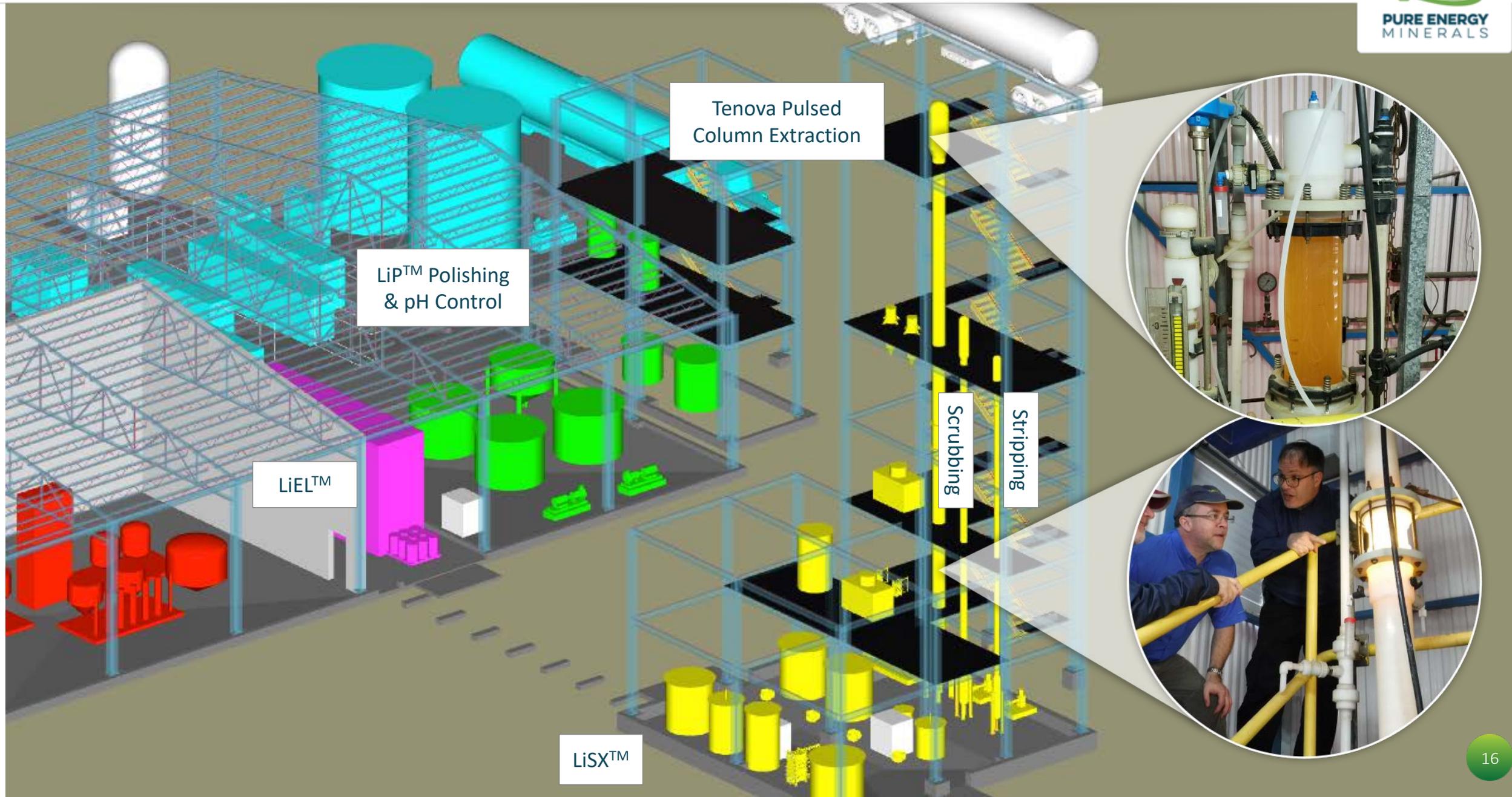


LiOH·H<sub>2</sub>O PRODUCT

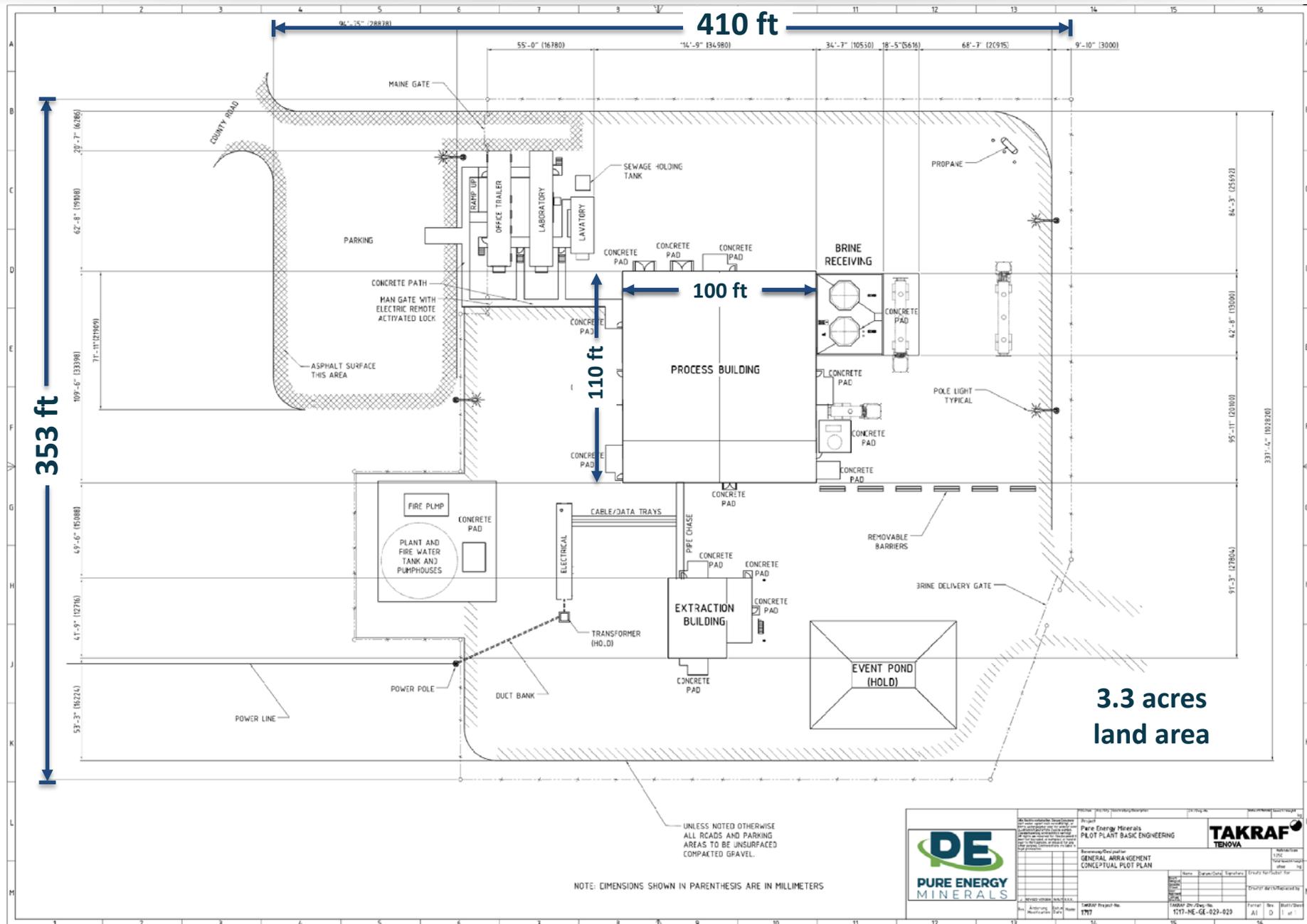
## Clayton Valley Project Lithium Processing Flowsheet

→ Aqueous Streams (liquid and gas)    
 → Organic Streams    
 → Slurry Streams (can be dilute slurries)    
 → Solid Streams    
 Li flow path

# CLAYTON VALLEY PILOT PLANT DESIGN - PROOF IS ON THE WAY!



# PILOT PLANT BASIC DESIGN: CONCEPTUAL LAYOUT



**PURE ENERGY MINERALS**

**TAKRAF TENOVA**

Project: Pure Energy Minerals  
 Plot Plant Basic Engineering  
 GENERAL ARRANGEMENT  
 CONCEPTUAL PLOT PLAN

Rev	Description	Date
1	Issue for Review	
2	Issue for Construction	

Project No: 1717  
 Revision: 022-020  
 Date: 11/17/2024

## PROJECT HIGHLIGHTS

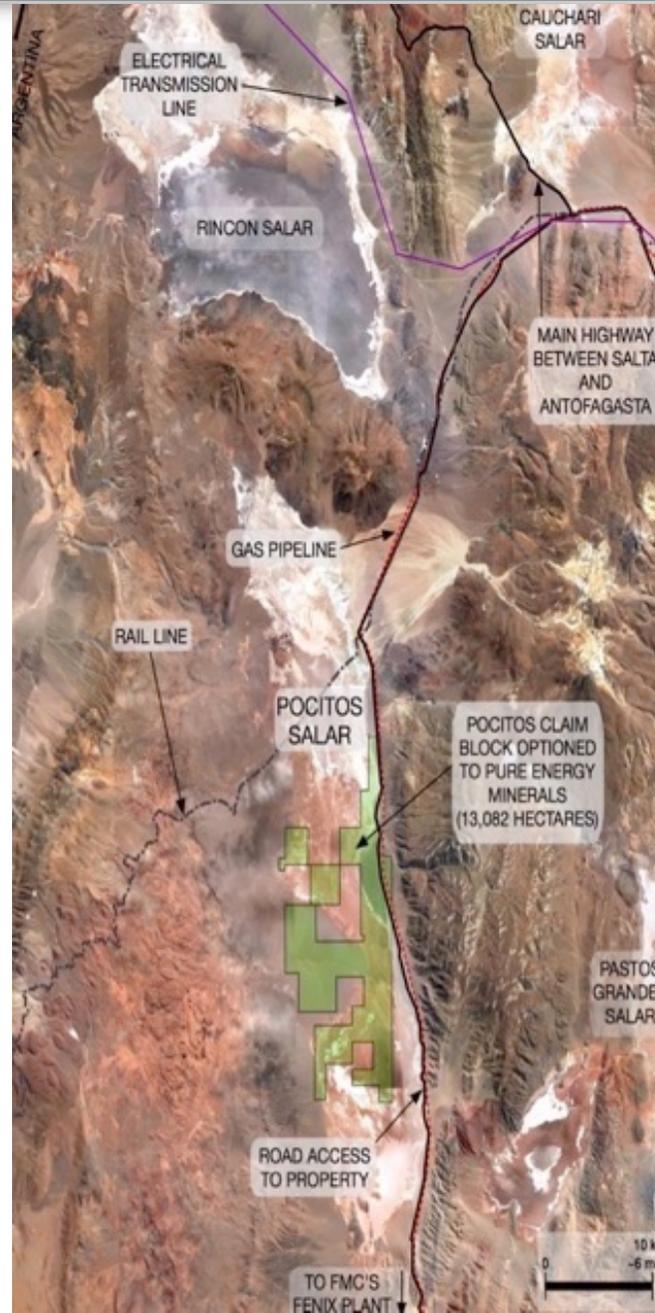
### Surface Sampling & Geophysics Complete

- Lithium anomalies
- Zonation of brine chemistry
- Large conductive zones suggest brine
- Geological mapping

### Environmental Impact Report Complete

### Phase 1 Drilling (2 holes) Complete:

- Coring to 400 meters depth
- Lithium anomalies to over 300 meters (deepest samples taken)
- Zones of enhanced brine inflow



Strong Leadership with Relevant Experience

Pioneering Direct-to-Hydroxide from Brine

Better, Faster, Greener Lithium Recovery

Major Milestones in 2018, Pilot Plant is Next

Opportunities for Paradigm Shift & Re-Valuation with Pilot & Strategic Investor



TSXV:PE



OTCQB:PEMIF

**PURE ENERGY**  
MINERALS

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