

# Clayton Valley, Nevada

From Drilling to PEA in under 2 Years

Basic Shares  
Outstanding:

**72.0 m**

FD Shares  
Outstanding:

**98.3 m**

Market  
Capitalization:

**C\$14.4 m**





# Forward Looking Statements

Some of the statements in this document may be deemed to be "forward-looking statements." All statements in this document, other than statements of historical facts, that address events or developments that management of the Company expects, are forward-looking statements. Although management believes the expectations expressed in such forward-looking statements are based on reasonable assumptions, such statements are not guarantees of future performance, and actual results or developments may differ materially from those in the forward-looking statements. The Company undertakes no obligation to update these forward-looking statements if management's beliefs, estimates or opinions, or other factors, should change. Factors that could cause actual results to differ materially from

those in forward-looking statements, include market prices, exploration and development successes, continued availability of capital and financing, and general economic, market or business conditions. Please see the public filings of the Company at [www.sedar.com](http://www.sedar.com) for further information.

Qualified Person as defined by National Instrument 43-101 and supervised the preparation of the technical information in this presentation is William Willoughby, PhD, PE, Director and CEO of Cypress.



# Cypress Capital Structure

TSX Venture Symbol	CYP
US OTCQB Market	CYDVF
Frankfurt Exchange Symbol	C1Z1
Basic Shares Outstanding	72.0 Million
FD Shares Outstanding	98.3 Million
Market Capitalization	C\$14.4 Million
Cash Position	C\$2.5 Million





# Investment Highlights

1

**Large Scale Lithium asset strategically located in United States** (located in Nevada – top USA mining jurisdiction)

2

**Management team key capabilities across mine development and capital markets**

3

**Project has advanced rapidly from first drill hole to PEA in 18 months**

4

**Project is fully financed through key derisking catalysts: Drilling, Metallurgical Study, and Prefeasibility Study (Q1 2019)**



# Key Management & Directors

## **William Willoughby, PhD, PE** **DIRECTOR, CHIEF EXECUTIVE OFFICER**

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Dr. Willoughby is a mining engineer with 38 years of experience in all aspects of natural resources development. Since 2014, he has been principal and owner of consulting firm Willoughby & Associates, PLLC. Prior to that, he was President and COO of International Enesco Ltd., which was acquired by Denison Mines in 2014. He previously held various positions with Teck (Cominco). Dr. Willoughby has been a Professional Engineer since 1985 and received his Doctorate in Mining Engineering & Metallurgy from the University of Idaho in 1989.

## **Donald C. Huston** **CHAIRMAN, PRESIDENT**

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Don Huston serves as Chairman of the Board and President of Cypress Development Corp. Mr. Huston has been associated with the mineral exploration industry for over 30 years and has extensive experience as a financier and in-field manager of numerous mineral exploration projects in North America. He was born and raised in Red Lake, Ontario and spent 15 years as a geophysical contractor with C.D. Huston & Sons Ltd. as mineral exploration consultants in northern Ontario, Manitoba and Saskatchewan. Mr. Huston serves as a director of four Canadian public resource companies.

## **James G. Pettit** **DIRECTOR, CHIEF FINANCIAL OFFICER**

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Jim Pettit serves as a Director and acting Chief Financial Officer of Cypress Development Corp. Mr. Pettit is currently serving on the board of directors of five publicly traded companies and offers over 25 years of experience within the industry specializing in finance, corporate governance, executive management and compliance. Jim was previously Chairman and C.E.O. of Bayfield Ventures Corp. which was bought by New Gold Inc. in January 2015.



# Lithium Deposit Types

	Sedimentary	Brine	Hardrock
Mine Product	<b>Lithium Carbonate (Li<sub>2</sub>CO<sub>3</sub>)</b>	Lithium Carbonate (Li <sub>2</sub> CO <sub>3</sub> )	Spodumene Concentrate (6% Li <sub>2</sub> O)
Typical Grade	<b>1000-3000ppm Li</b>	500-1000ppm Li	4500-7000ppm Li
Production Steps	<b>Mining Acid Leaching Evaporation Crystallization</b>	Pumping of Brine Evaporation Crystallization	Mining Crushing and Grinding Roasting Acidification
Estimated Cash Costs (\$/tonne Li <sub>2</sub> CO <sub>3</sub> )	<b>~4000*</b> <b>*Clayton Valley PEA</b>	2500 – 4000	+6000



# Lithium: US “Critical Mineral”

- US Government designated Lithium as a **“Critical Mineral”** of strategic importance in December 2017. (Executive Order 13817 – A Federal Strategy to Ensure, Secure and Reliable Supplies of Critical Minerals)
- **“Critical Mineral”** designation favours domestic sources of Lithium across the supply chain
- Section 3 of the policy calls for identification of new sources of the minerals, increasing exploration mining and processing and streamlining permitting





# Clayton Valley Highlights

## Size

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Major lithium resources, multi-million tonne  
LCE

## New

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First hole February 2017  
Rapidly advancing, PFS by Q1 2019

## Location

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Next to Albamarle's Silver Peak brine operation

## Mining

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Flat deposit, no overburden  
Soft clay, no drill & blast

## Metallurgy

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Leachable clay, low acid consumption  
Potential by-products, including REEs





# Clayton Valley Project Preliminary Economic Assessment

## After-Tax Cash Flow Analysis

### Internal Rate of Return (IRR)

32.7%

### Net present value (NPV 8%)

\$1.45-billion

### Base case price for lithium carbonate

\$13,000/tonne

### Payback Period

2.7 years

### Operating Rate

15,000 tpd for 40 years

### Average production lithium carbonate

24,042 tonnes

### Capital Cost Estimate

\$482-million over 2 years

### Net Lithium Recovery

81.5%

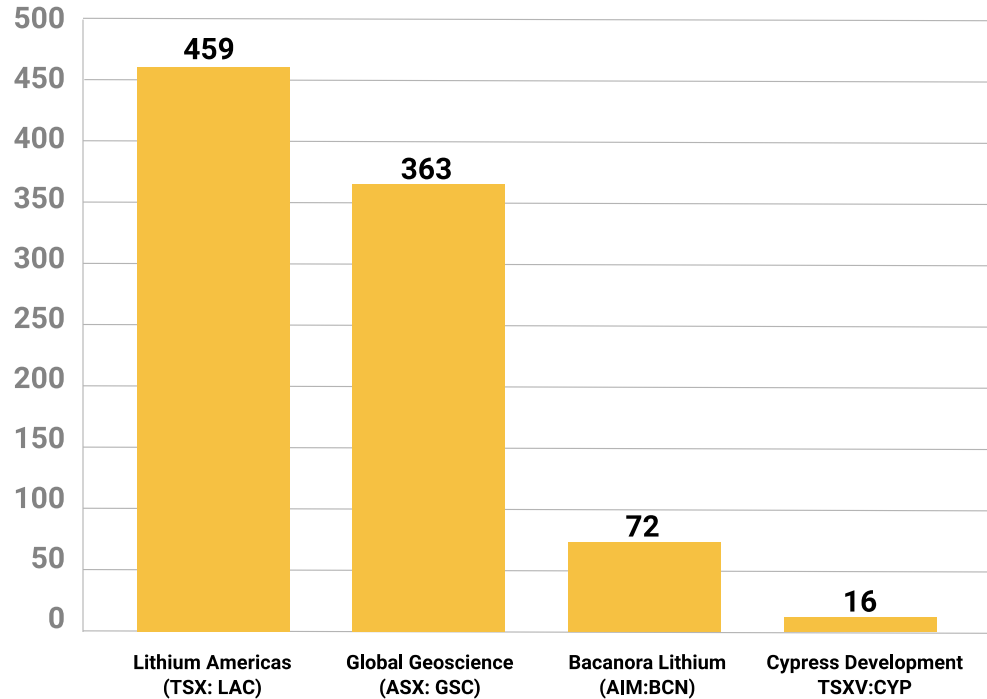
### Operating Cost for Lithium

\$3,983/tonne



# Sedimentary Hosted Lithium Comparable Projects

Market Capitalization (CAD)



Project	Clayton Valley (CYP)
Operating Cost	~4000 / tonne LCE
Development Stage	PEA → PFS
Market Cap (C\$)	< 20 MM

Project	Thacker Pass (LAC)
Operating Cost	~4000 / tonne LCE
Development Stage	PFS
Market Cap (C\$)	459 MM <small>*Argentina + Nevada Assets</small>

Project	Rhyolite Ridge (GSC)
Operating Cost	3500 - 4000 / tonne LCE
Development Stage	PFS
Market Cap (C\$)	363 MM

Project	Sonora (BCN)
Operating Cost	~3900 / tonne LCE
Development Stage	FS
Market Cap (C\$)	72 MM



# Key Events

## 2014

Albemarle Corporation (NYSE: ALB) acquires Rockwood Holdings for \$6.2B. Purchase includes Silver Peak Lithium Mine located in Clayton Valley

## 2016

Cypress acquires Clayton Valley claims. Reports 3,070 ppm Li in a surface sample of claystone

## Sept 2017

Begins leach testing on drill core

## Sept 2018

Preliminary Economic Assessment completed

## 2015

Tesla Motors breaks ground on USD \$5 billion, 35 GWh factory near Reno

## March 2017

Drilling commences on Dean property

## June 2018

Maiden 43-101 Resource Estimate announced



# Project Location



**Option to Earn 100%**

Held Property

**5700 Acres**

Placer and Lode Claims

**3% NSR**

Buy-down to 1% NSR for \$2 million



# Clay Deposit

- Extensive volcanic-derived claystone east and south of brine field and Angel Island
- Lithium in illite and montmorillonite clays to depth of at least 120 m below surface
- Fault bounded to east and west and east
- Shallow redox boundary.



Drill Hole ID	Depth (m)	Length (m)	Average Li (ppm)
DCH-01	4.4	31.5	1,140
DCH-02	0.5	53.8	1,036
DCH-03	8.5	27.4	999
DCH-04	1.5	49.7	1,127
DCH-05	8.5	67.1	1,129
DCH-06	14.6	16.8	1,013
DCH-07	32.2	19.0	974
DCH-09	11.3	58.2	1,093
DCH-10	8.5	55.8	1,108
DCH-11	8.2	55.2	1,209
DCH-13	23.8	82.3	1,221
DCH-15	20.1	104.2	1,106
DCH-16	14.6	107.9	1,199
DCH-17	14.6	94.5	1,050
GCH-04	3.7	26.2	1,077
GCH-05	84.7	25.0	1,018
GCH-06	3.0	96.9	1,142



# Resources

## Property Wide (pit constrained)

	Indicated			Inferred		
Cut-off Grade Li ppm	Tonnes (Million)	Li ppm	Tonnes LCE (million)	Tonnes (million)	Li ppm	Tonnes LCE (million)
300	831.0	867	3.834	1,120.3	860	5.125

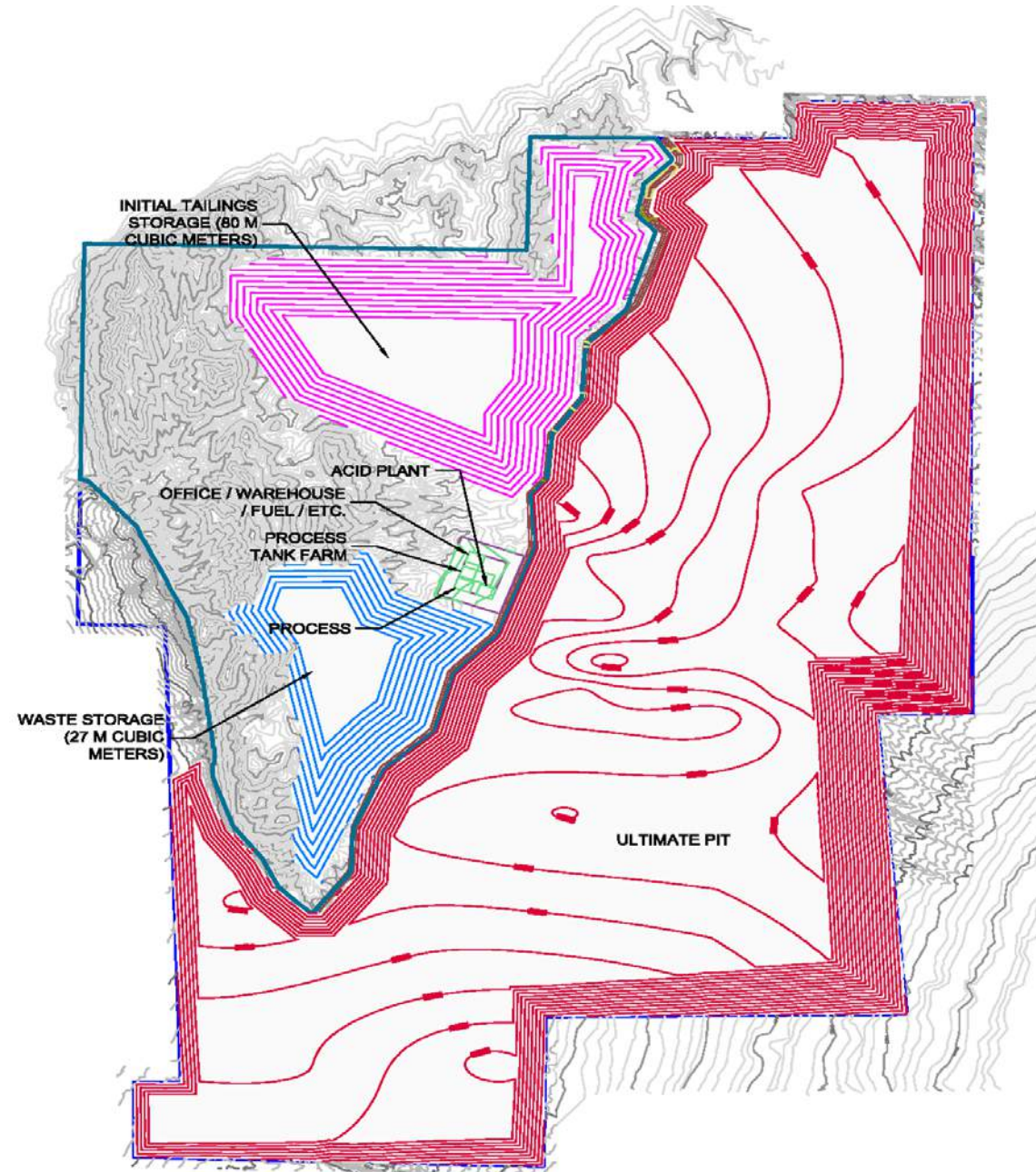
## Initial Pit Shell

	Indicated			Inferred		
Cut-off Grade Li ppm	Tonnes (million)	Li ppm	Tonnes LCE (million)	Tonnes (million)	Li ppm	Tonnes LCE (million)
300	365.3	942	1.832	160.5	992	0.847
600	361.3	946	1.820	158.5	997	0.841
900	198.0	1,105	1,164	106.8	1,119	0.626



# Mining

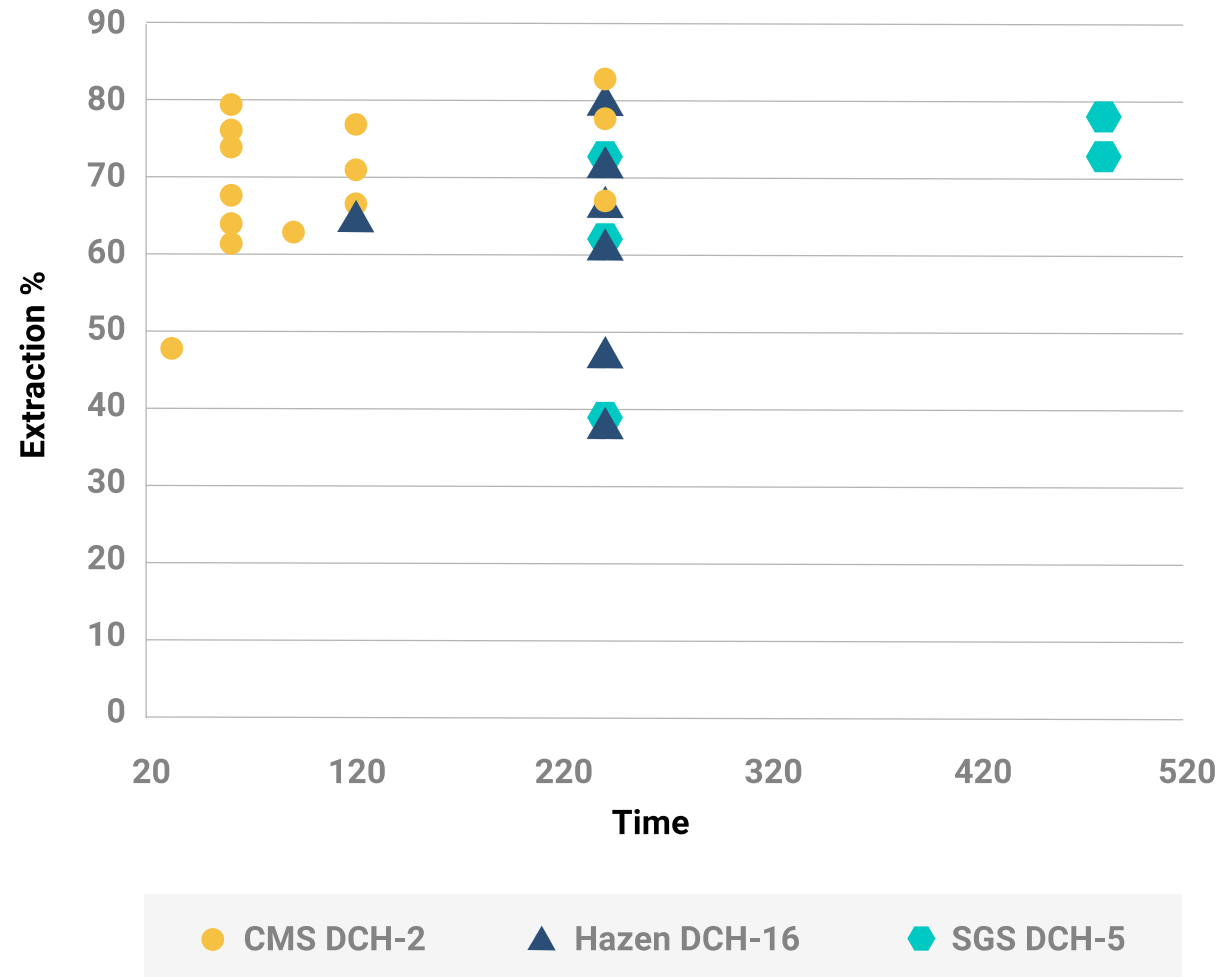
- Soft material, no drilling and blasting
- Pit to 120m depth, 30° pit slope
- 15,000 tpd
- <0.1 waste to feed
- Production with loader, feeder breaker
- Slurry pipeline to mill





# Lithium Extraction

- Acid leachable clays, not hectorite
- 4 to 8 hours agitated leach
- 50-80C solution of 5% H<sub>2</sub>SO<sub>4</sub>
- 81.5% extraction
- Acid consumption 125 kg/t







# Lithium Recovery

- Standard treatment by evaporation, purification and crystallization
- Low reagent consumptions
- Recovery to battery grade product on-site



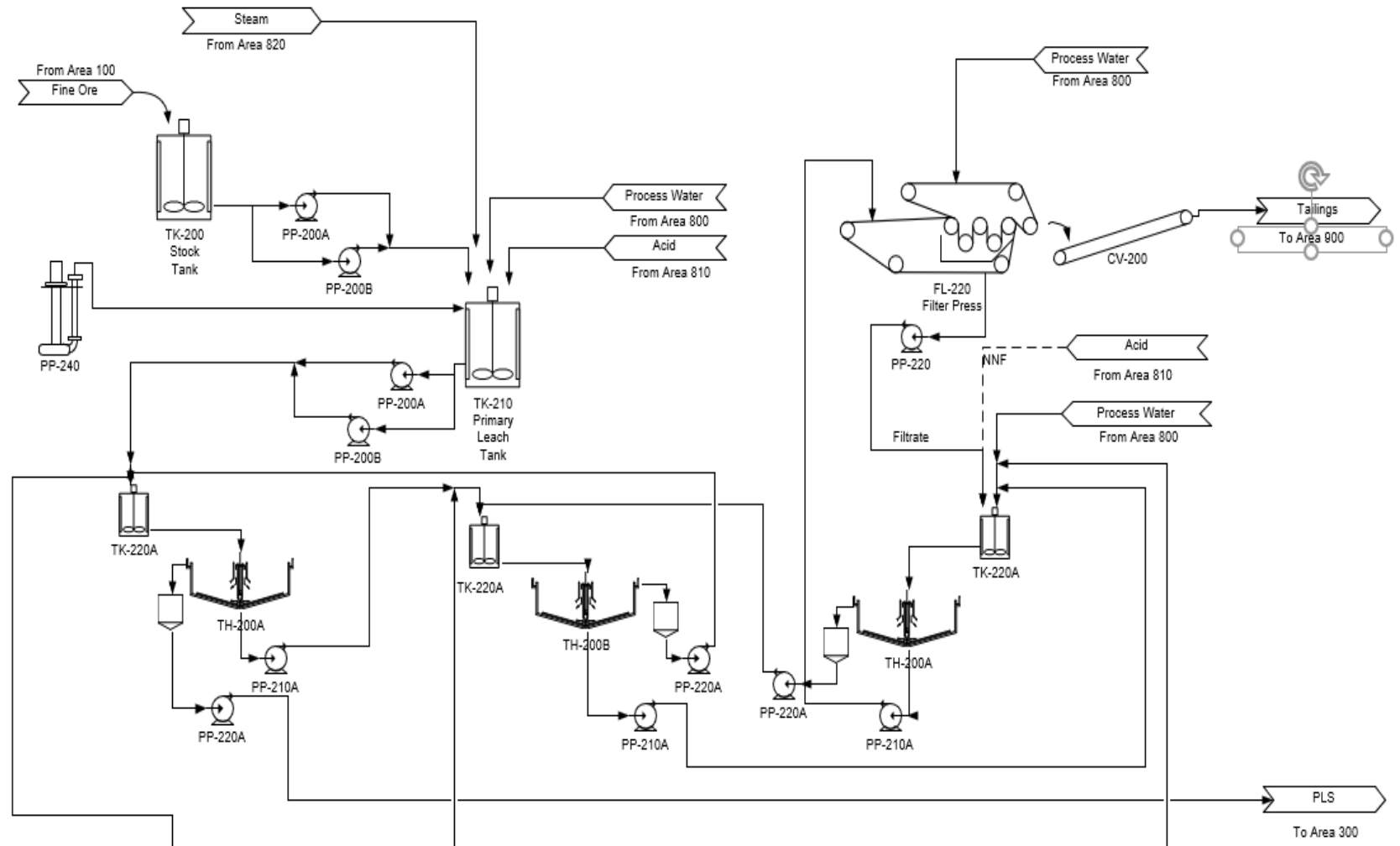
Brine PH	Li	Mg	K	Ca	Na	Mn	Fe
1	173	4225	1087	593	1997	98	183
6	157	3172	984	473	1807	5	0
10	172	16	1063	756	1978	ND	ND
12	193	2	1223	2	7097	ND	ND

VALUES IN PPM



# Process Flow Sheet

- Leach circuit
- Agitated tank leach
- pH and temp control
- Heat with steam from acid plant





# Capital Cost Estimate

	USD (Millions)
Mine Development and Equipment	35
Plant feed prep, leaching, purification and lithium recovery	163
Acid plant	105
Tailings	25
Site utilities	17
Infrastructure and G&A capital	38
<b>Direct Capital Costs</b>	<b>383</b>
Working capital	24
Contingency (20% of Direct Costs)	76
<b>Indirect Capital Costs</b>	<b>99</b>
<b>TOTAL CAPEX</b>	<b>482</b>



# Operating Cost Estimate

Operating Cost	\$ Per Tonne Of Mill Feed	\$ Per Tonne of LCE
Mining	1.73	395
Plant Labor	1.45	330
Reagents & supplies	12.70	2,893
Power	0.94	210
G&A	0.68	155
<b>TOTAL OPEX</b>	<b>17.50</b>	<b>3,983</b>



# Upcoming Catalysts & Newsflow

## Q1 2019

### Infill Drill Program

Drill core to provide material for further metallurgical study

## Q1/Q2 2019

### Prefeasibility Study

Incorporating results of Metallurgical Study and Infill drill program

## Q1 2019

### Metallurgical Study

Ongoing bench tests to refine production and cost parameters

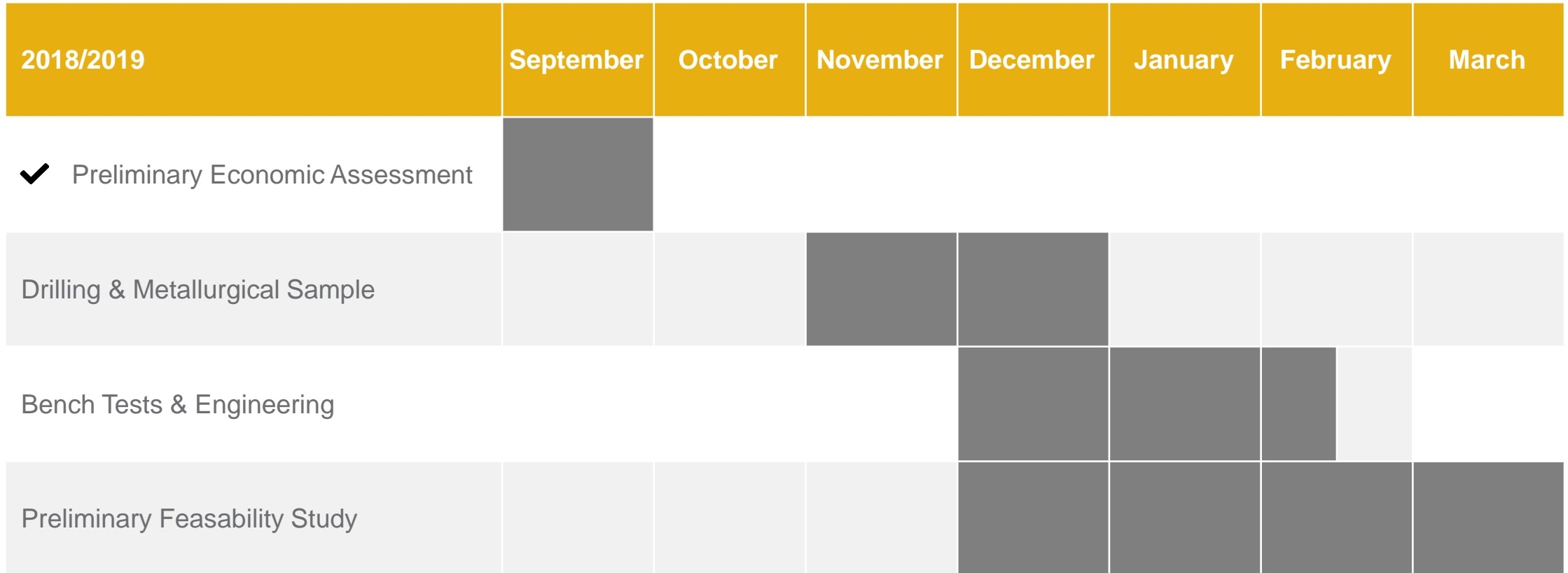
## 2019

### Additional Potential Catalysts

Updates related to water sources, permitting milestones



# Timeline

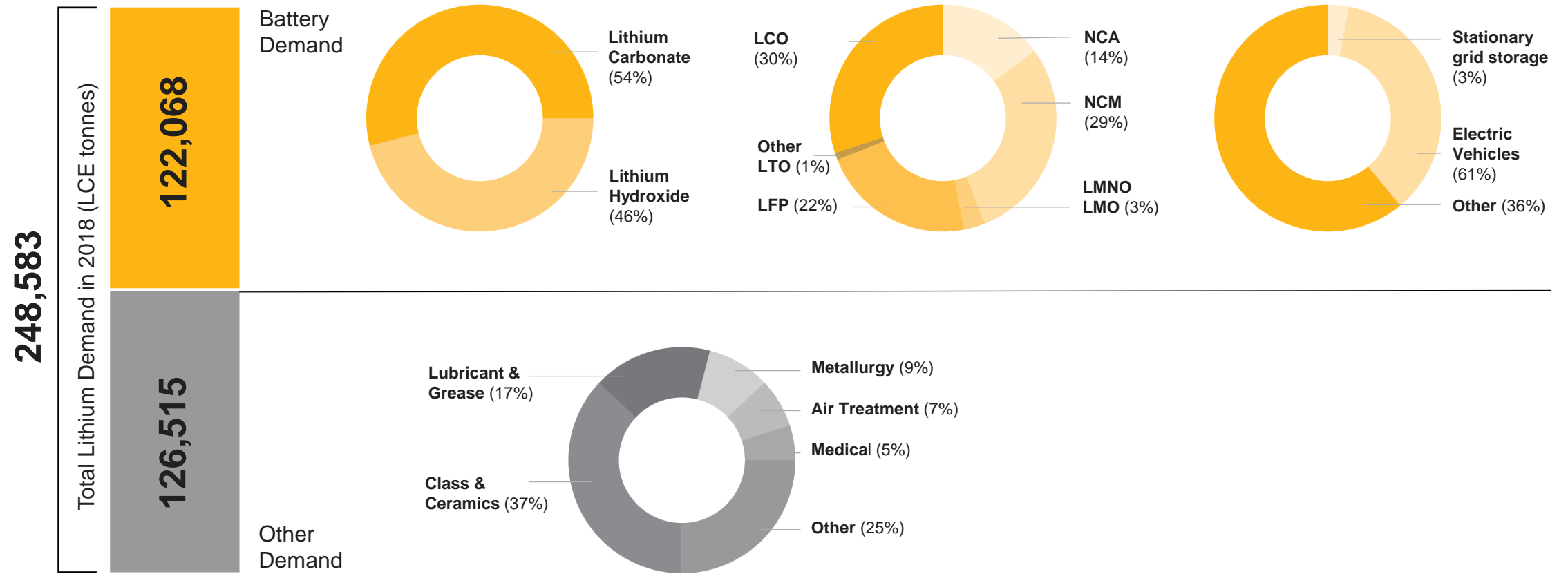




# Appendix: Lithium Market Fundamentals



# Current Lithium Supply and Breakdown by End-Use

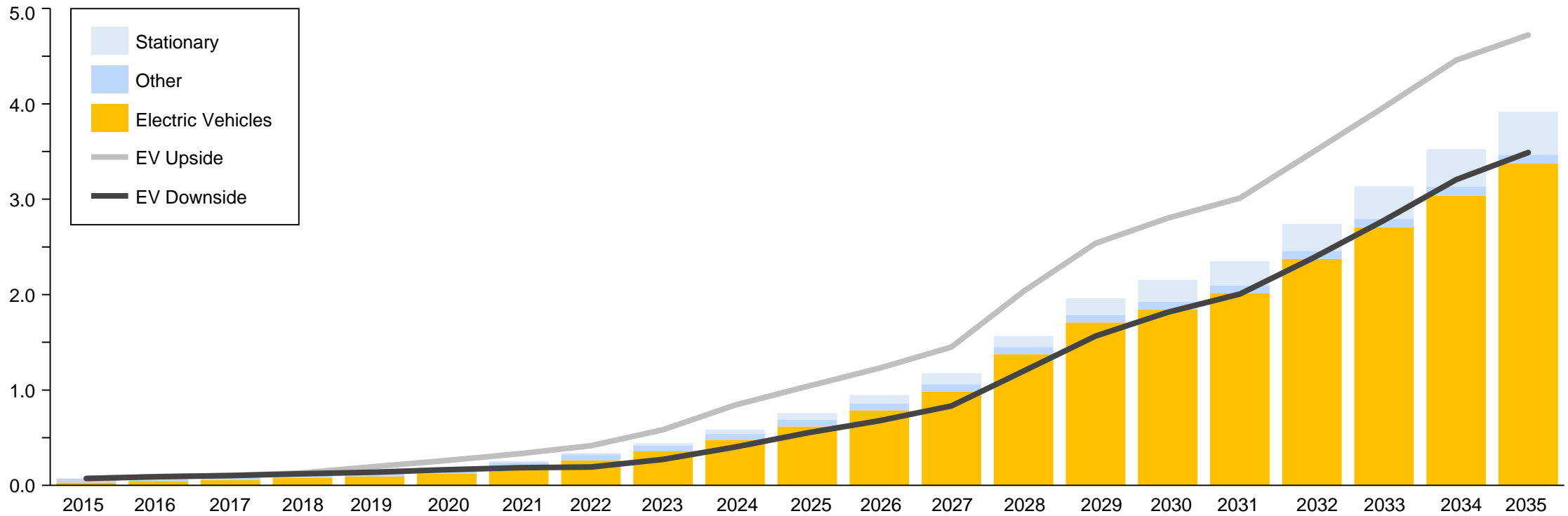






# Lithium-ion Battery Demand by End Use Sector

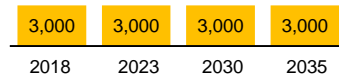
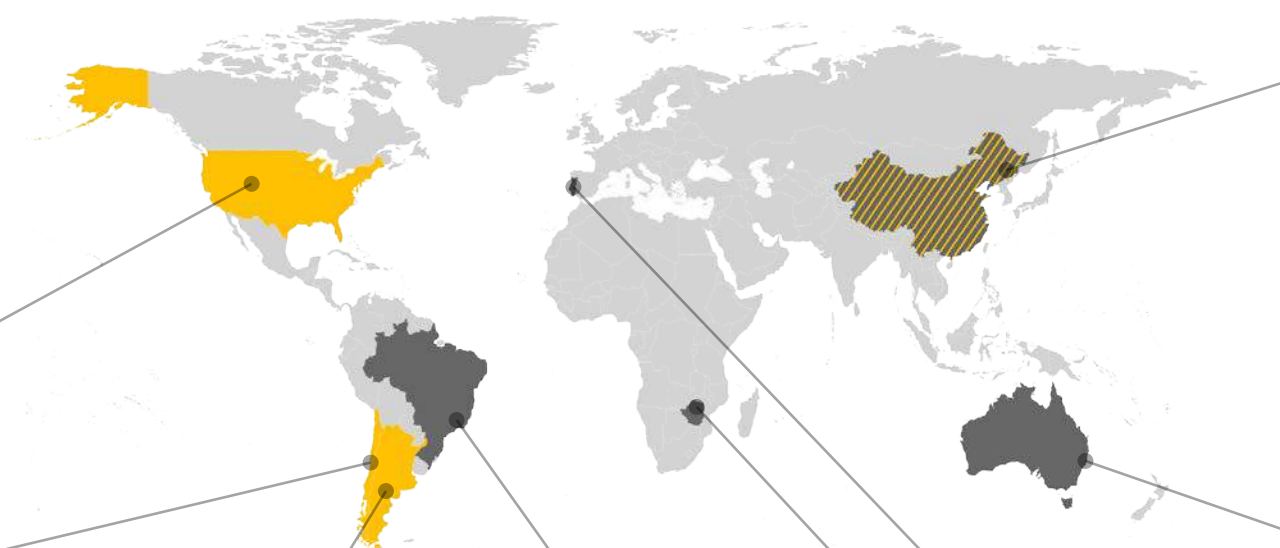
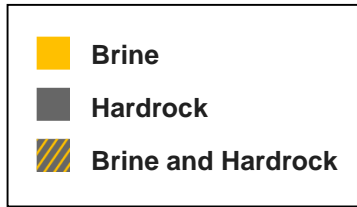
The chart below outlines the key drivers of demand for lithium-ion batteries over the forecast period. As can be seen the major growth area is for EVs, followed by stationary (grid) applications. In our base case scenario we expect that demand will be approximately 135,000 MWH in 2018, reaching 760,000 MWH by 2025, and 4M MWH by 2035.



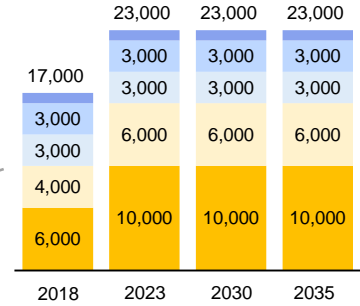
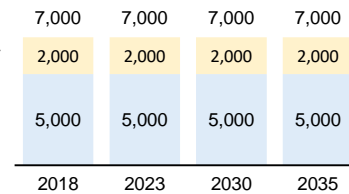
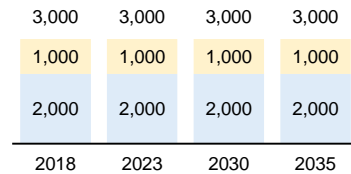
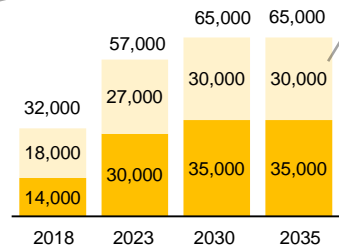
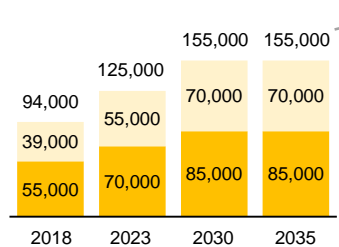


# Brownfield Lithium Capacity Forecast to 2035

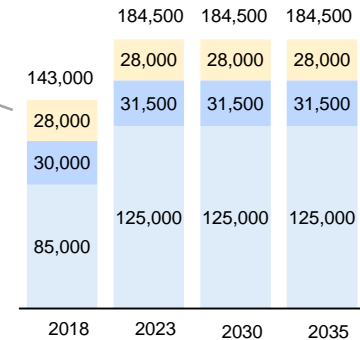
'000 LCE tonnes



Albemarle



Yichun Tani  
 Jiangxi Special Electric  
 Tibet Mineral Development  
 Qinghai Lithium  
 Fozhao Lanke



Albemarle

SQM

FMC

Orocobre

Arqueana de Minérios e Metais Ltda.

Companhia Brasileira de Lítio

Sociedade Mineira de Pegmatites

Bikita Minerals

Galaxy Resource

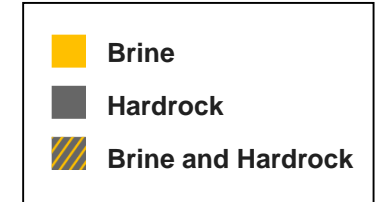
Neometals

Talison

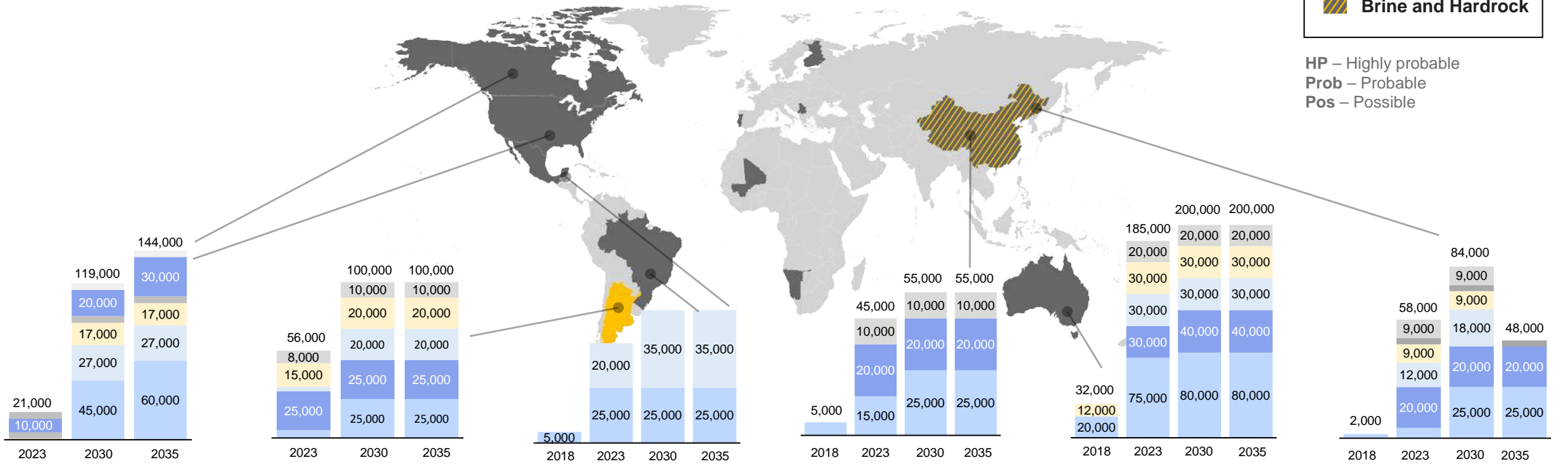


# Greenfield Lithium Capacity Forecast to 2035

'000 LCE tonnes



**HP** – Highly probable  
**Prob** – Probable  
**Pos** – Possible

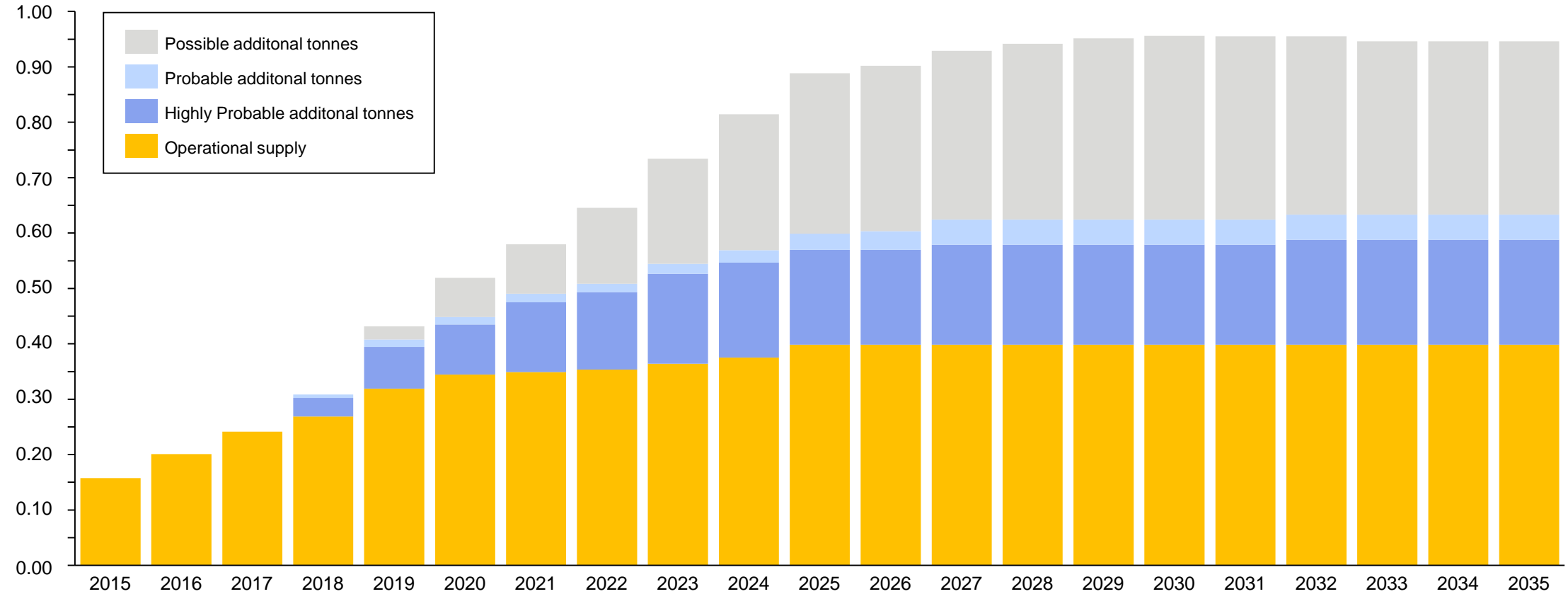


- Galaxy Resource (Pos)
- Argosy (Pos)
- Bacanora Minerals Ltd (Pos)
- China Minmetals (Pos)
- Tawana Resources (Pos)
- Savannah - Portugal (Pos)
- Nemaska Lithium (HP)
- Galaxy Resource (HP)
- AMG (HP)
- Chinese Producers (Pos)
- Altura Mining (HP)
- Grupo Mota - Portugal (Pos)
- Piedmont Lithium (Pos)
- LSC (Pos)
- Chinese Producers (Prob)
- Core Exploration Ltd (Pos)
- Keliber - Finland (Pos)
- Pure Energy Minerals (Pos)
- Lithium Americas (Pos)
- Kidman Resources SQM (Pos)
- Birimian Limited - Mali (Pos)
- Global Geoscience (Pos)
- Millennial Lithium (Pos)
- Pilbara Minerals (HP)
- Rio Tinto - Serbia (Pos)
- Lithium Americas (Pos)
- Desert Lion Energy - Namibia (Prob)



# Lithium Capacity Forecast to 2035

Million LCE tonnes



SOURCE: BENCHMARK MINERAL INTELLIGENCE – CYPRESS DEVELOPMENT CORP – AUGUST 2018



# Lithium Demand-Supply Balance, 2015-2035

For the supply forecast we have divided the forecast into three main phases, which reflect the development of the market over time, these are:

### Phase 1, 2015-2018:

In this phase the supply-demand balance is very tight, with demand growing faster than new capacity expansions. New supply is largely from development of brownfield sites at operating producers

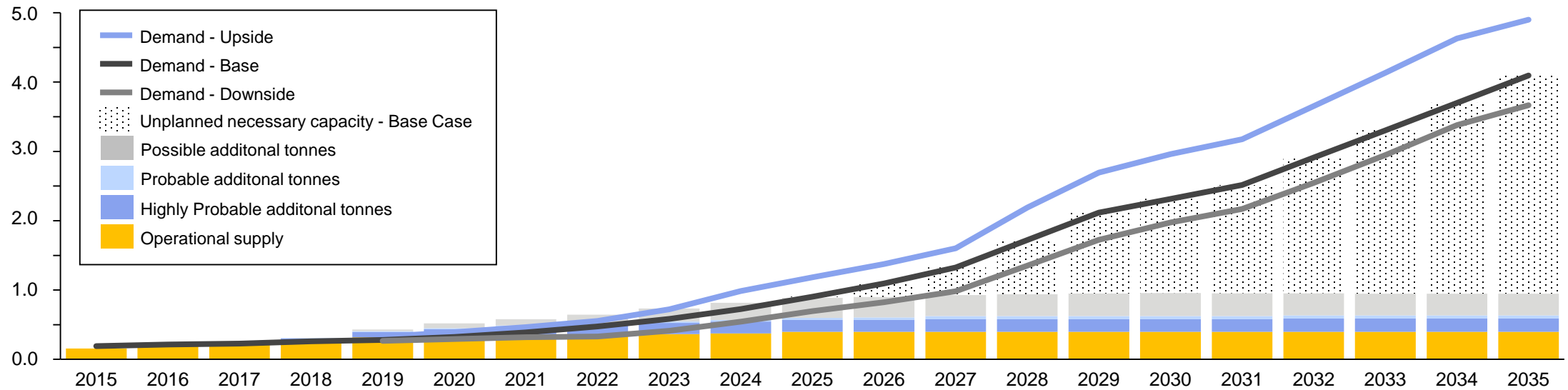
### Phase 2, 2019-2025:

Phase two sees new supply start to come online from greenfield projects, as well as expansions at existing producers. The market moves into a period of relative oversupply by the end of the period

### Phase 3, 2026-2035:

Towards the latter part of the forecast period there is a marked requirement for further as yet announced lithium capacity to come on-stream to meet rising demand. We expect that prices will remain in a range needed to stimulate this new investment, given that geological constraints are not an issue.

Million LCE tonnes



SOURCE: BENCHMARK MINERAL INTELLIGENCE – CYPRESS DEVELOPMENT CORP – AUGUST 2018

# Contact

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