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CYP (TSX-V) | CYDVF (OTCQB) | C1Z1 (Frankfurt)

Clayton Valley Lithium Project

By: Todd Fayram Continental Metallurgical Services, LLC





ABSTRACT

ABSTRACT – CYPRESS MINING CORP. – CLAYTON VALLEY LITHIUM PROJECT

With the advent of the electric car and other high energy storage uses, the need for battery metals such as lithium, cobalt, vanadium, and nickel are on the forefront of the demand curve to meet a growing sector in the mining industry. Due to many of these metals coming from either unfriendly or dangerous countries, a focus on finding these metals within North America has become a focus of the US Government and the mining industry. The US government has identified lithium along with many other metals as critical and strategic to the future of the United States. To this end, Cypress Development Corp is developing a deposit of lithium-bearing clay located in Clayton Valley in Southwest, Nevada. This Powerpoint presentation identifies the progress and current path forward to bringing the Clayton Valley Lithium Project into production.



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 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.



Key Management & Directors

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

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**

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**

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: 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





Project Location



100% owned Property

5700 Acres

3% NSR

Federal Placer and Lode Claims

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



Clayton Valley Highlights

Size

Major lithium resources, multi-million tonne LCE

New

First hole February 2017
Rapidly advancing, PFS by Q2 2019

Location

Next to Albamarle's Silver Peak brine operation

Infrastructure

Full greenfield site
Only 65kv power available to site area

Mining

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

Metallurgy

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

Environmental

Permitting as open pit mine
Expect 75 to 90% recycle of water
Use dry stacking methods Reclaim to look like playa
No archeological issues noted
No flora and fauna issues expected



Lithium Deposit Types

	Sedimentary	Brine	Hardrock
Mine Product	Lithium Carbonate (Li₂CO₃)	Lithium Carbonate (Li ₂ CO ₃)	Spodumene Concentrate (6% Li ₂ O)
Typical Grade	1000-3000ppm Li	500-1000ppm Li	4500-7000ppm Li
Production Steps	Mining Acid Leaching Evaporation Crystallization	Pumping of Brine Evaporation Crystallization	Mining Crushing and Grinding Roasting Acidification
Estimated Cash Costs (\$/tonne Li ₂ CO ₃)	~4000* *Clayton Valley PEA	2500 – 4000	+6000



Sedimentary 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

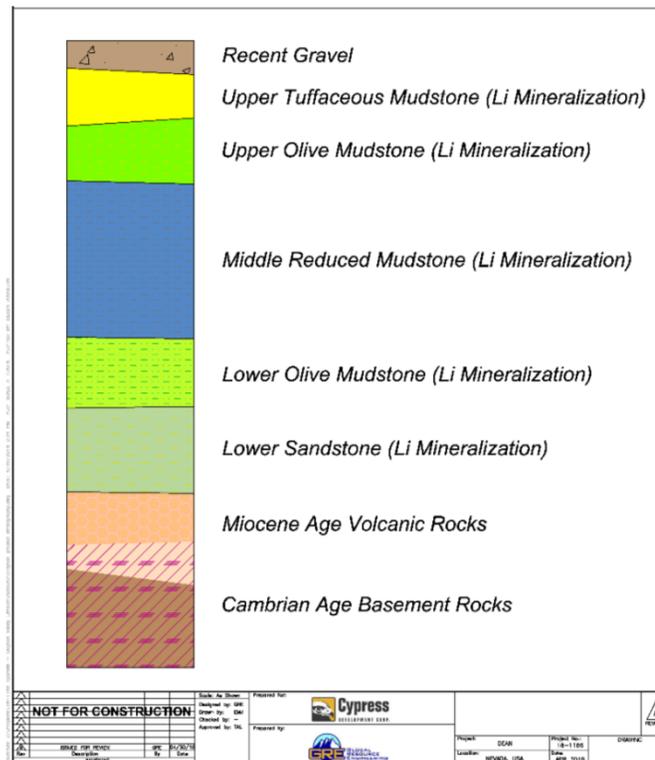


Drill Hole ID	Depth (m)	Length (m)	Average Li (ppm)
DCH-01	4.4	31.5	1,140
DCH-02	0.5	53.8	1,036
DCH-03	8.5	27.4	999
DCH-04	1.5	49.7	1,127
DCH-05	8.5	67.1	1,129
DCH-06	14.6	16.8	1,013
DCH-07	32.2	19.0	974
DCH-09	11.3	58.2	1,093
DCH-10	8.5	55.8	1,108
DCH-11	8.2	55.2	1,209
DCH-13	23.8	82.3	1,221
DCH-15	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



Sedimentary Clay Deposit

- Thin (1 to 5 m) gravel overburden
- Lithium in illite (75%) and montmorillonite (20%) mudstones (clays) to depth of at least 120 m below surface
- Lithium values range from 800 ppm to over 1,500 ppm.
- Deposit is rich magnesium, rare earths, and other soluble salts such as sodium and potassium





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

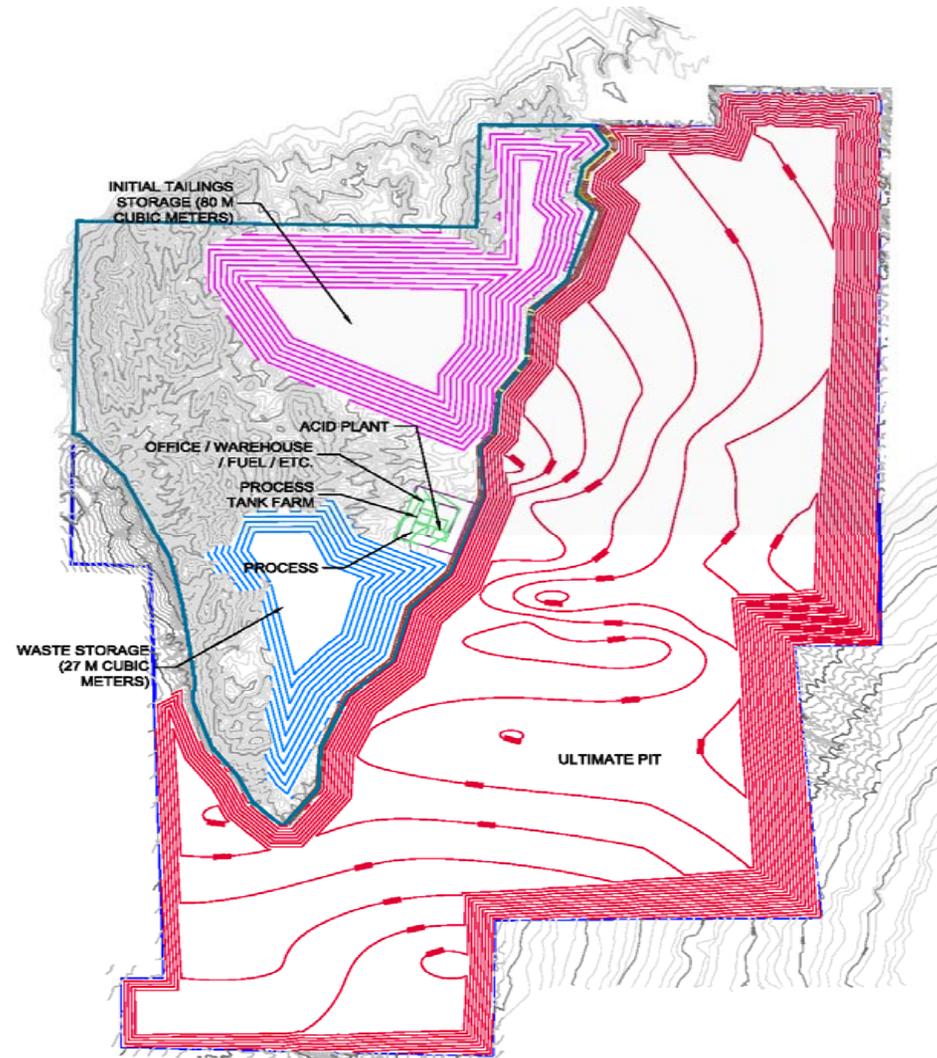
Initial Pit Shell

	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





Mining Equipment

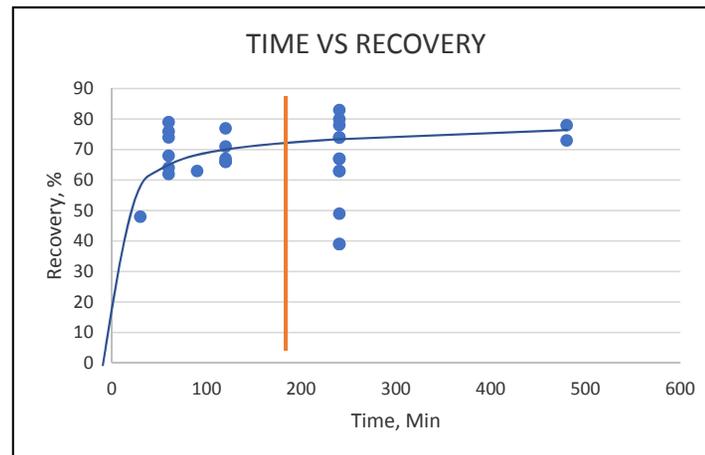
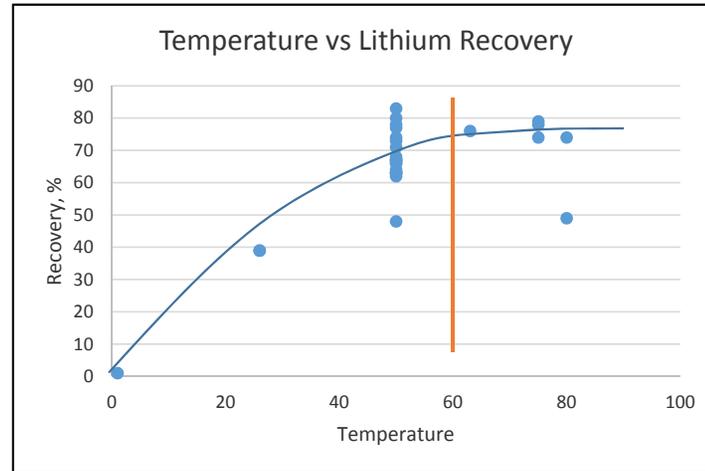
- Loader or Longwallier with feeder breaker used to cut clay
- All clay loaded to in-pit conveyance
- Conveyed to stacker reclaimer system to feed process facility.
- Potential to slurry clay to process facility





Lithium Extraction

- Acid leachable clays, not hectorite
- 4 to 8 hours agitated leach
- 65C solution of 5% H₂SO₄
- 81.5% extraction
- Acid consumption 125 kg/t





Lithium Recovery – Current Option

- Standard treatment by evaporation, purification and crystallization
- Three stage purification – Primary, Secondary, and Polishing
- Low reagent consumptions
- Recovery to battery grade product on-site

INCREASING PH →



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



Lithium Recovery - Potential

- Identifying and reviewing options that don't use significant quantities of water and allow for recycle
- Reviewing following options:
 - Ion Exchange – New IX resins recover only lithium from brine
 - Reviewing membrane technologies including ultrafiltration, nanofiltration, and reverse osmosis
- Identifying options to make both Lithium Carbonate and Lithium Hydroxide
- Reviewing rare earth recovery from leach solutions



Infrastructure

- Water – Reviewing requirements and needs for approximately 6,000 to 8,000 gpm
 - Review includes:
 - Location of rights
 - Purchase of rights
 - Transport of water via pipeline
- Chemicals
 - No local rail access all chemicals and materials must be roaded into the area
 - Require large sulfuric acid plant on site for sulfuric acid
 - Require large lime usage with on-site slaking capacity
 - Other chemicals roaded and stored on site as needed.
- Power
 - Use spare power from acid plant
 - Potential need to install new power line to increase power availability to area
- Fuel and Gas
 - Fuel will be trucked and stored on site in large tanks.
 - Gas will be reviewed and a pipeline installed or enlarged based on review.
- Personnel
 - There are currently sufficient personnel in the surrounding area to man the project. The area has highly skilled mine related personnel in the area from previous operations.
- Final Product
 - Back hauled from site as necessary



Environmental

- Tailings
 - Dry stack
 - Waste claystones used for stability of any dissolved species
 - Stack at pH 6.5 to 8.0

- Permitting
 - Nevada DEQ
 - BLM administered land
 - Require Plan of Operation and NEPA review
 - Mining Reclaim Permit
 - Water Pollution Control Permit
 - Stormwater Permit
 - Corp of Engineer review
 - Air Quality Permit
 - Permit to Appropriate Water
 - Hazardous Material Permit
 - General Local Permits



Environmental Baseline Project Studies

- Vegetation Baseline
- Wildlife Baseline
- Soils Review
- Jurisdictional Water Review
- Seep and Spring Review
- Waste rock characterization
- Process leach residue characterization
- Archeological Review



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
Direct Capital Costs	383
Working capital	24
Contingency (20% of Direct Costs)	76
Indirect Capital Costs	99
TOTAL CAPEX	482



Operating Cost Estimate

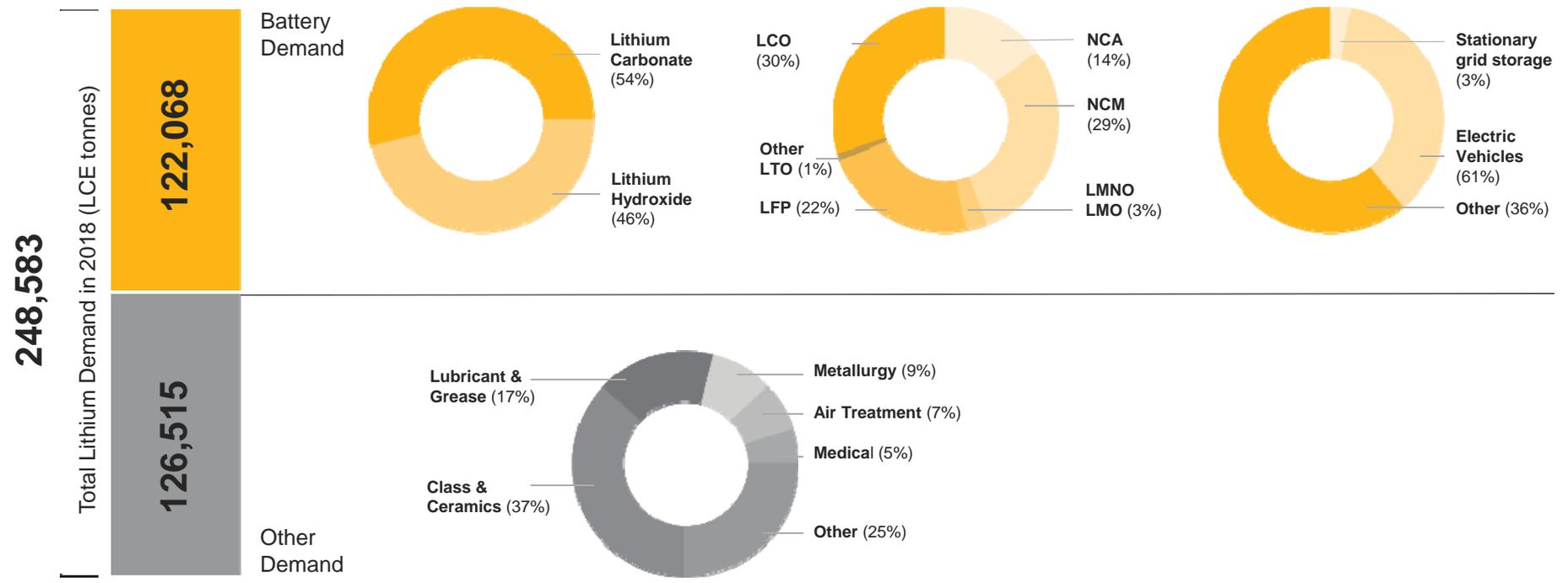
Operating Cost	\$ Per Tonne Of Mill Feed	\$ Per Tonne of LCE
Mining	1.73	395
Plant Labor	1.45	330
Reagents & supplies	12.70	2,893
Power	0.94	210
G&A	0.68	155
TOTAL OPEX	17.50	3,983



Appendix: Lithium Market Fundamentals



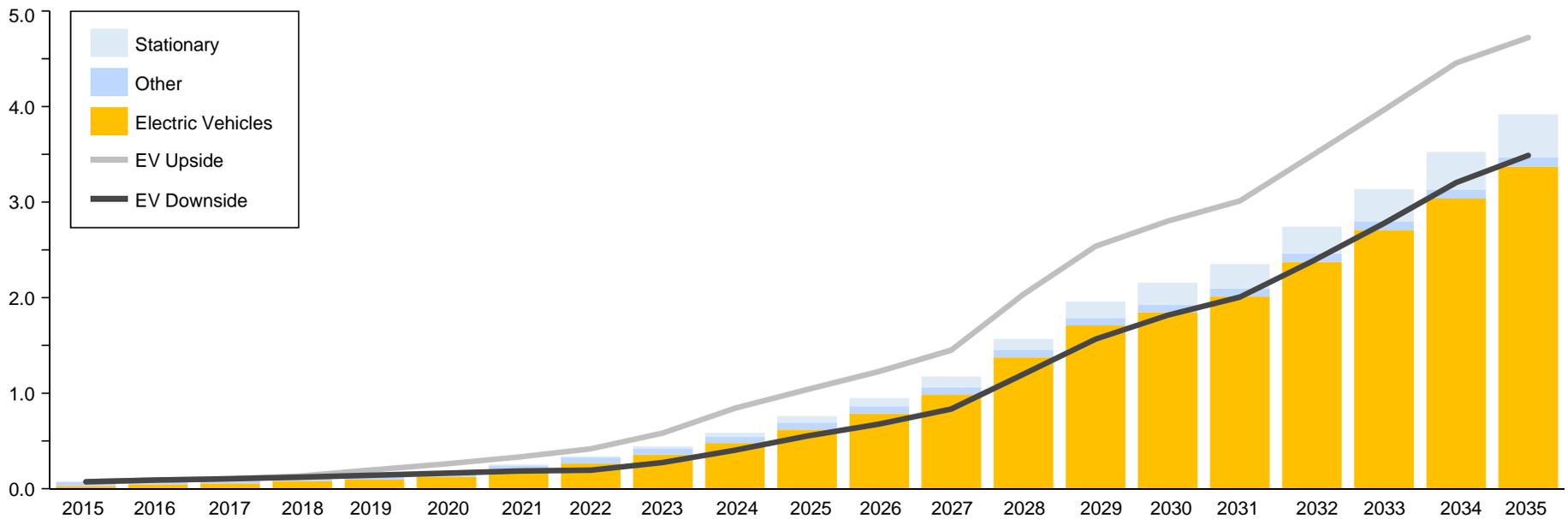
Current Lithium Supply and Breakdown by End-Use





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.



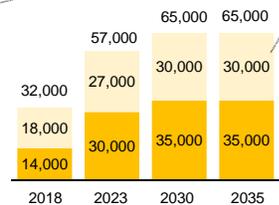
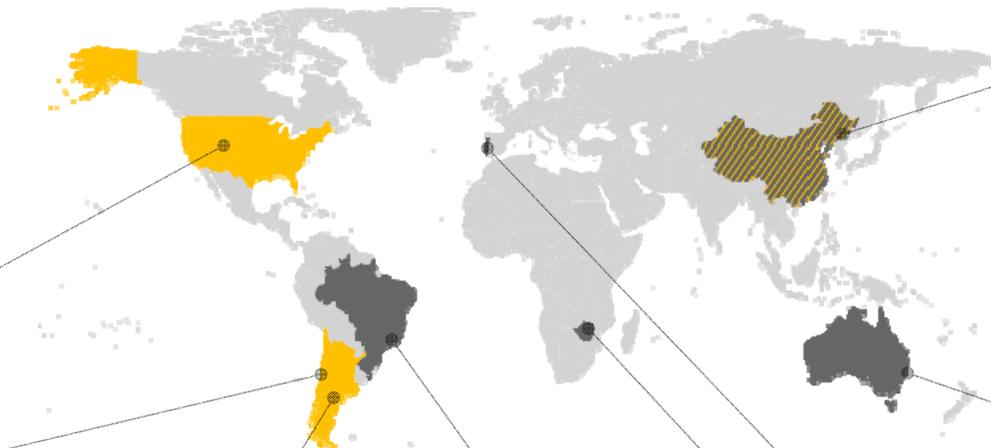
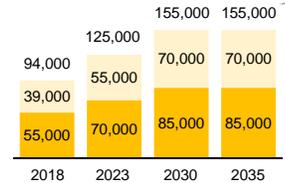


Brownfield Lithium Capacity Forecast to 2035

'000 LCE tonnes



Albemarle



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

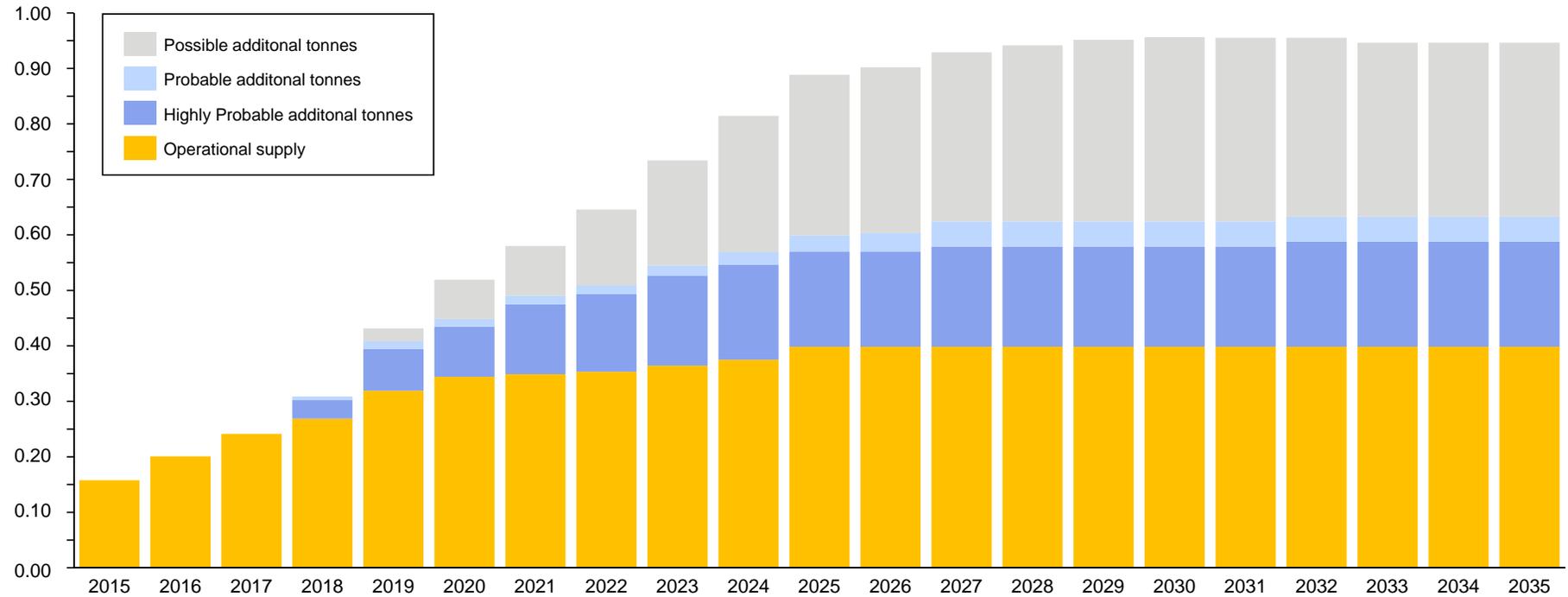


Albemarle SQM FMC Orocobre Arqueana de Minérios e Metais Ltda. Sociedade Mineira de Pegmatites Galaxy Resource
 Companhia Brasileira de Lítio Bikita Minerals Neometals Talison



Lithium Capacity Forecast to 2035

Million LCE tonnes



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

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