Standard LITHIUM

NYSE : SLI | TSX.V : SLI

The Future of Lithium in North America

Creating a Sustainable U.S. Lithium Business

August 2025

www.standardlithium.com

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This presentation also includes certain estimates and projections that are based on internal models. Although the estimates are based upon assumptions and analysis that we believe to be reasonable, there can be no assurance that actual results will not differ, perhaps materially, from the estimates presented in this presentation.

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Forward-Looking Statements

Except for statements of historical fact, this Presentation contains certain "forward-looking information" within the meaning of applicable Canadian securities legislation and "forward-looking statements" within the meaning of the United States Private Securities Litigation Reform Act of 1995 (collectively referred to herein as "forward-looking information"). The statements relate to future events or the Company's future performance. All statements, other than statements of historical fact, may be forward-looking information. Information concerning mineral resource and mineral reserve estimates also may be deemed to be forward-looking information in that it reflects a prediction of mineralization that would be encountered if a mineral deposit were developed and mined. Forward-looking information generally can be identified by the use of words such as "seek", "anticipate", "plan", "continue", "estimate", "expect", "may", "will", "project", "predict", "propose", "potential", "target", "intend", "could", "might", "should", "believe", "scheduled", "implement" and similar words or expressions. These statements involve known and unknown risks, uncertainties and other factors that may cause actual results or events to differ materially from those anticipated in such forward-looking information.

In particular, this Presentation contains forward-looking information, including, without limitation, with respect to the following matters or the Company's expectations relating to such matters: the Company's planned exploration and development programs (including, but not limited to, plans and expectations regarding advancement, testing and operation of the lithium extraction pilot plant and expected collaboration with Equinor ASA ("Equinor")); commercial opportunities for lithium products; filing of technical reports; expected results of exploration; accuracy of mineral or resource exploration activity; accuracy of mineral reserves or mineral resources estimates, including the ability to develop and realize on such estimates; whether mineral resources will ever be developed into mineral reserves, and information and underlying assumptions related thereto; budget estimates and expected expenditures by the Company on its properties; regulatory or government requirements or approvals; the reliability of third party information; continued access to mineral properties or infrastructure; payments obligations pursuant to property agreements; fluctuations in the market for lithium and its derivatives; expected timing of the expenditures; performance of the Company's business and operations; changes in exploration costs and government regulation in Canada and the United States; competition for, among other things, capital, acquisitions, undeveloped lands and skilled personnel; changes in commodity prices and exchange rates; currency and interest rate fluctuations; the Company's funding requirements and ability to raise capital; geopolitical instability; war (such as Russia's invasion of Ukraine and the war in the Middle East); health and safety protocols and their efficacy and impacts on timelines and budgets; and other factors or information.

Forward-looking information does not take into account the effect of transactions or other items announced or occurring after the statements are made. Forward-looking information is based upon a number of expectations and assumptions and is subject to a number of risks and uncertainties, many of which are beyond the Company's control, that could cause actual results to differ materially from those that are disclosed in or implied by such forward-looking information. With respect to forward-looking information listed above, the Company has made assumptions regarding, among other things: current technological trends; ability to fund, advance and develop the Company's properties; the Company's ability to operate in a safe and effective manner; uncertainties with respect to receiving, and maintaining, mining, exploration, environmental and other permits; operation of a joint venture ownership structure with Equinor; pricing and demand for lithium, including that such demand is supported by growth in the electric vehicle market; impact of increasing competition; commodity prices, currency rates, interest rates and general economic conditions; the legislative, regulatory and community environments in the jurisdictions where the Company operates; impact of unknown financial contingencies; impacts of changes in current and future trade agreements, legislation, regulations, import tariffs and other similar trade barriers; market prices for lithium products; budgets and estimates of capital and operating costs; estimates of mineral resources and mineral reserves; reliability of technical data; anticipated timing and results of operation and development; inflation; war (such as Russia's invasion of Ukraine); and the impact of health and safety protocols on the Company and its business. Although the Company believes that the assumptions and expectations reflected in such forward-looking information are reasonable, the Company can give no assurance that these assumptions and expectations will prove to be correct. Since forward-looking information inherently involves risks and uncertainties, undue reliance should not be placed on such information.

Cautionary Statement (continued)

Forward-looking information involves known and unknown risks, uncertainties and other factors that may cause the actual results, performance or achievements of the Company to be materially different from any future results, performance or achievements expressed or implied by the forward-looking information. Such factors include, but are not limited to: general economic conditions in Canada, the United States and globally; industry conditions, including the state of the electric vehicle market; governmental regulation of the mining industry, including environmental regulation; geological, technical and drilling problems; unanticipated operating events; reliance upon joint venture partners and disagreements surrounding project development; competition for and/or inability to retain drilling rigs and other services and to obtain capital, undeveloped lands, skilled personnel, equipment and inputs; the availability of capital on acceptable terms; the need to obtain required approvals from regulatory authorities; uncertainties associated with estimating mineral resources and mineral reserves, including uncertainties relating to the assumptions underlying mineral resource and mineral reserve estimates; whether mineral resources will ever be converted into mineral reserves; uncertainties in estimating capital and operating costs, cash flows and other project economics; liabilities and risks, including environmental liabilities and risks inherent in mineral extraction operations; health and safety risks; risks related to unknown financial contingencies, including litigation costs, on the Company's operations; unanticipated results of exploration activities; unpredictable weather conditions; unanticipated delays in preparing technical studies; inability to generate profitable operations; restrictive covenants in debt instruments; lack of availability of additional financing on terms acceptable to the Company; intellectual property risk; stock market volatility; volatility in market prices for commodities; liabilities inherent in the mining industry; inflation risks; risks related to war (such as Russia's invasion of Ukraine); global pandemics; changes in tax laws and incentive programs relating to the mining industry; other risks pertaining to the mining industry; conflicts of interest; dependency on key personnel; and fluctuations in currency and interest rates, as well as those factors discussed in the section entitled "Risk Factors" in the Company's AIF.

Although the Company has attempted to identify important factors that could cause actual actions, events or results to differ materially from those described in forward-looking information, there may be other factors that cause actions, events or results to differ from those anticipated, estimated or intended.

Readers are cautioned that the foregoing lists of factors are not exhaustive. All forward-looking information in this this Presentation speaks as of the date of this Presentation. The Company does not undertake any obligation to update or revise any forward-looking information, whether as a result of new information, future events or otherwise, except as required by law. All forward-looking information contained in this Presentation is expressly qualified in its entirety by this cautionary statement. Additional information about these assumptions and risks and uncertainties is contained in the Company's filings with securities regulators, including the Company's most recent MD&A for our most recently completed financial year and, if applicable, interim financial period, which are available on SEDAR+ at www.sedarplus.com and EDGAR at www.sec.gov.

Currency

Except where otherwise indicated, all references to currency in this Presentation are to U.S. Dollars ("$").

NI 43-101 Disclosure

Scientific and technical information in this Presentation has been reviewed and approved by Steve Ross, P. Geo., Vice President Resource Development, of the Company, who is a "qualified person" under National Instrument 43-101 – ***Standards of Disclosure for Mineral Projects*** ("NI 43-101").

Further information about the South West Arkansas ("SWA") Project, including a description of key assumptions, parameters, methods and risks, is available in the NI 43-101 technical report titled "Amended and Restated NI 43-101 Technical Report, South West Arkansas Project Pre-Feasibility Study, Lewisville, Lafayette County, AR" dated July 23, 2025 (the "South West Arkansas PFS"), available under the Company's SEDAR+ profile.

Further information about the Lanxess Property ("Lanxess") Project, including a description of key assumptions, parameters, methods and risks, is available in the NI 43-101 technical report titled "Amended and Restated NI 43-101 Technical Report for the Definitive Feasibility Study for Commercial Lithium Extraction Plant at Lanxess South Plant", dated July 23, 2025 ("Lanxess DFS"), available under the Company's SEDAR+ profile.

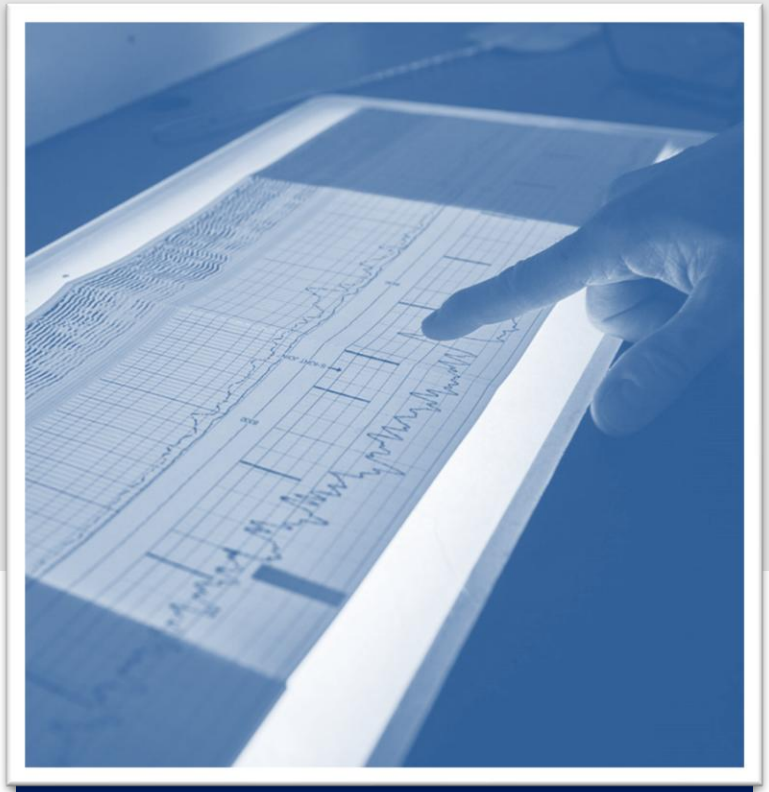
The mineral resources and mineral reserves contained in this Presentation have been prepared in accordance with the requirements of securities laws in effect in Canada, including NI 43-101, which governs Canadian securities law disclosure requirements for mineral properties. NI 43-101 differs from the requirements of the United States Securities and Exchange Commission ("SEC") that are applicable to domestic United States reporting companies. Any mineral resources or reserves reported by the Company herein may not be comparable with information made public by United States companies subject to the SEC's reporting and disclosure requirements.

Non-GAAP Measures

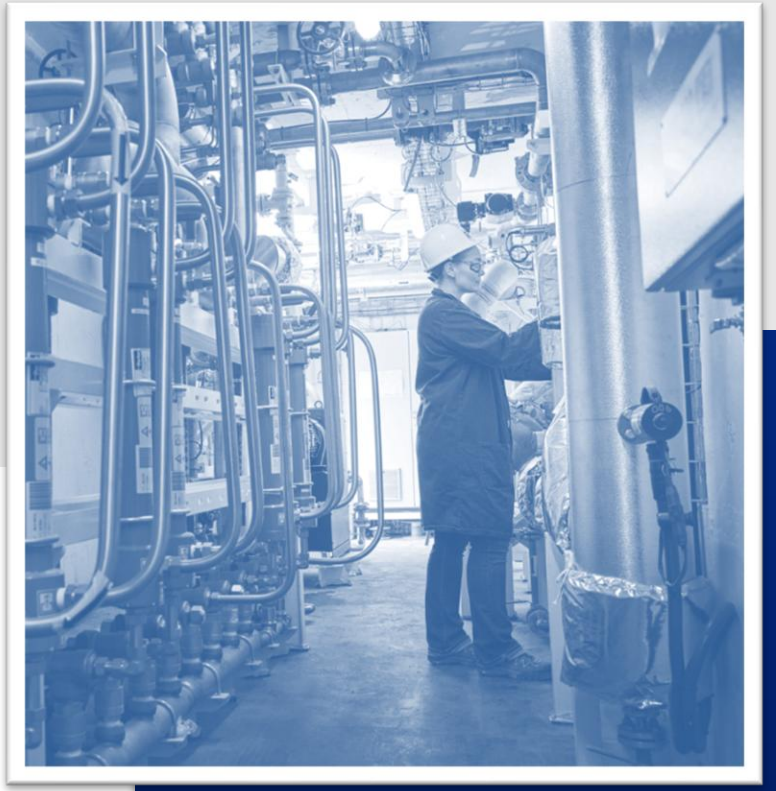
This Presentation includes certain performance measures ("non-GAAP measures") which are not specified, defined, or determined under generally accepted accounting principles (in the Company's case, International Financial Reporting Standards, or "IFRS").

These are common performance measures in the lithium mining industry, but because they do not have any mandated standardized definitions, they may not be comparable to similar measures presented by other issuers. Accordingly, the Company uses such measures to provide additional information and readers should not consider them in isolation or as a substitute for measures of performance prepared in accordance with generally accepted accounting principles ("GAAP").

Standard Lithium is on the path to becoming a leading low-cost sustainable American lithium producer



We aim to achieve attractive near-term commercial-scale production by applying innovative technologies to our world class assets in Arkansas and Texas



Building projects with our global partners in a region with regulatory clarity and broad stakeholder support

Standard LITHIUM

Investment Highlights

Premier Lithium Brine Resource in North America

Smackover is North America's highest grade lithium brine – ***concentrations up to 616 mg/L in Arkansas[1] and up to 806 mg/L in East Texas[2]***

Advantaged Cost Structure

High grade resource, proven commercial-scale technology and infrastructure drives low operating costs – expected to rank in ***first quartile of global cost curve***

Arkansas Project in Advanced Stage of Development

Finalizing Definitive Feasibility Study and Front End Engineering and Design study at our SWA Project – **targeting Final Investment Decision by end of 2025**

Aligned with World-Class Partners

Partnerships bring complementary resources and expertise: Equinor provides subsurface and big-project delivery experience, Koch aids in development of our flowsheet and technology, and LANXESS offers significant experience in brine operations

Strong Federal Support for Arkansas Project

SWA Project identified as transparency project *on Federal Permitting Dashboard[3], with construction of Phase 1 supported by* ***$225 million grant from the U.S. Department of Energy ("DOE")[4]***

Attractive Long-Term Market Fundamentals

Global lithium demand projected to reach 2.7 million tonnes of lithium carbonate equivalent ("LCE") by 2030 – represents a 138% increase from 2024 levels[5] – with **strong U.S. support for advancing domestic production**[6]

1. Standard Lithium press release on July 15, 2025
2. Standard Lithium press release on October 25, 2023
3. Smackover Lithium press release on April 21, 2025
4. DOE grant awarded to SWA Lithium LLC, a jointly-owned U.S. subsidiary of Standard Lithium and Equinor
5. Q2 2025 Benchmark Lithium Forecast
6. Executive Order 'Immediate Measures to Increase American Mineral Production' signed March 20, 2025

Brine to Battery – A Clear Path

SECURE THE BEST RESOURCE

Entered Smackover - highest lithium brine grades in North America - with Tetra Option Agreement (2017) and Lanxess Memorandum of Understanding (2018) and ongoing leasing in East Texas

LANXESS Energizing Chemistry

UNLOCK THE RESOURCE WITH BEST TECHNOLOGY

Signed Joint Development Agreement with Koch (KTS) (2021) to develop and commercialize Direct Lithium Extraction ("DLE") flowsheet

KOCH TECHNOLOGY SOLUTIONS

DE-RISK THE PROJECTS

Commenced operations at Company's Demonstration Plant (2020) –5+ years of continuous brine flow and testing; successful field-test completes de-risking (2025)[1]

DEVELOP PROJECTS WITH RIGHT PARTNERS

Strategic partnership with Equinor (2024); License Agreement with KTS (2024) to deploy and use Li-pro LSS[2]; $225 million grant from DOE (2025)[3]

equinor

KOCH TECHNOLOGY SOLUTIONS

EXECUTION OF STRATEGY

Targeting 2028 for first delivery of sustainable and scalable lithium production

1. Smackover Lithium press release dated March 11, 2025
2. Press release dated October 28, 2024, signed license agreement with Koch Technology Solutions ("KTS") to deploy and use KTS' Li-ProTM Lithium Selective Sorption ("Li-pro LSS") technology at SWA Phase 1
3. Standard Lithium press release on January 16, 2025

Our Strategic Approach

Standard Lithium is positioning itself to achieve highly value-accretive, globally significant production scale, in a sustainable and responsible manner

Resource & Location

- Recent drilling results in the Smackover Formation reveal highest reported lithium-in-brine grades in North America - up to 806 mg/L[1]
- Assets located in Arkansas and Texas, areas with established natural resource extraction industries, infrastructure and skilled workforce
- Multiple scalable project areas provide substantial capacity for future production

Phased Development

- Over five years of DLE runtime and flowsheet optimization at Demonstration Plant
- Tailoring of DLE process replicable across Smackover Formation
- Phased stages of expansion – finalizing Definitive Feasibility Study at SWA, pursuing maiden resource report in East Texas

Partnerships & Capitalization

- Strategic partnerships bring significant technical support in addition to financial strength
- Prioritizing non-dilutive sources of capital (e.g., strategic partnerships, offtake financing, federal funding, low-cost project debt)
- Focus on maintaining balance sheet strength, positive working capital, and low "burn-rate" through project execution

Market Fundamentals

- Total demand for lithium is expected to more than double by 2030, with significant market deficit in North America through 2034[2]
- Strong Federal support for securing a stable and robust domestic supply of critical minerals in U.S. – *SWA Project included on the Federal Permitting Dashboard as a transparency project*[3,4]
- Standard Lithium's projects expected to rank among first quartile on global lithium cost curve

1. Standard Lithium press release on October 25, 2023
2. Benchmark Minerals Q2 2025 Lithium Market Overview
3. Smackover Lithium press release on April 21, 2025
4. SWA Project is subject to the National Environmental Policy Act ("NEPA") and will require completion of an Environmental Assessment; SWA Project is not expected to require federal permitting

Smackover: A World Class Lithium Brine Asset

Smackover Formation is a high-quality lithium brine resource

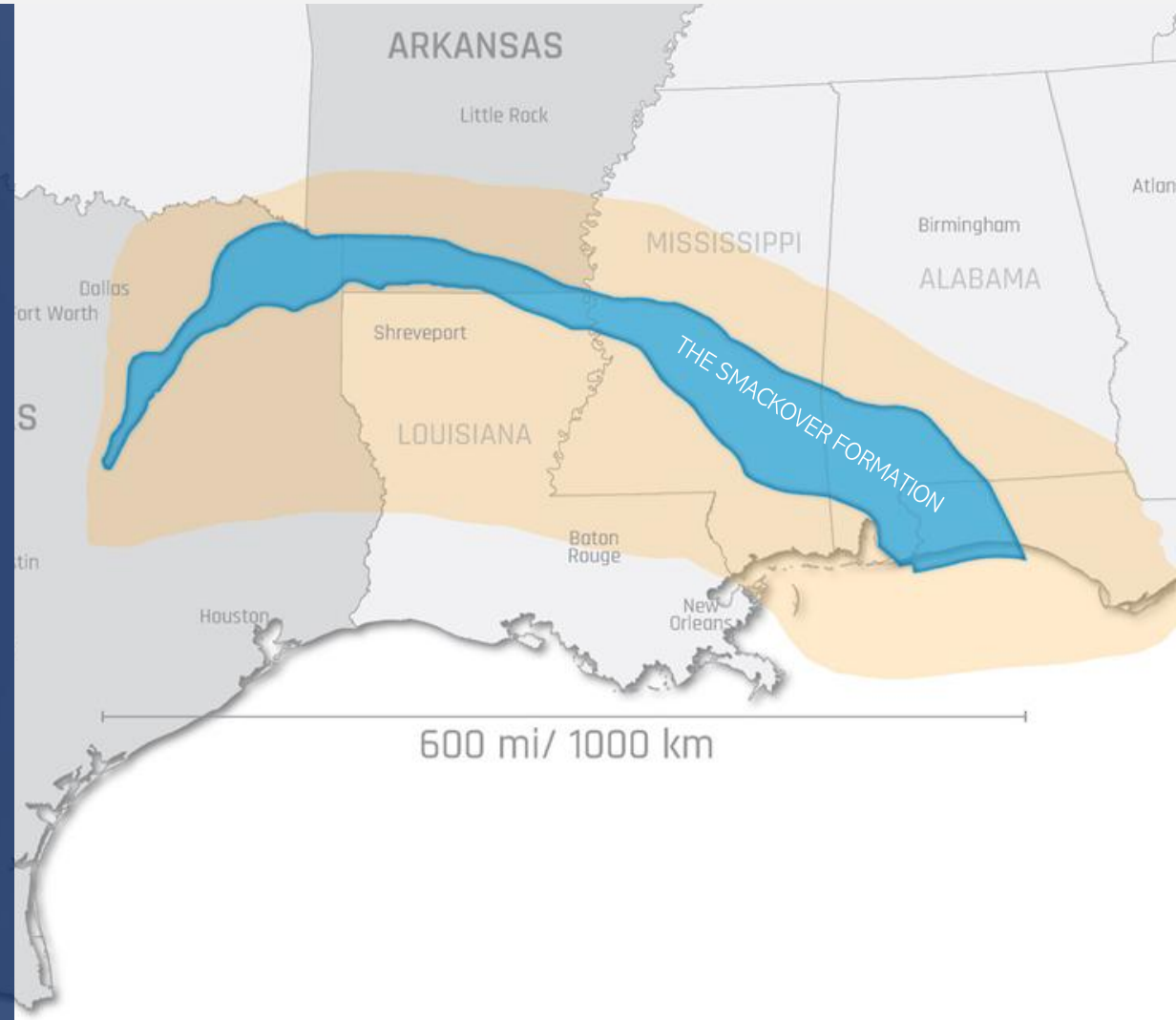
- Elevated lithium concentrations are some of the highest recorded outside of Lithium Triangle in South America
- In Arkansas, 8+ billion gallons of brine extracted, processed and reinjected annually for bromine production

Proven reservoir with significant geological understanding

- Over 100 years of conventional energy operations in the Smackover Formation
- Geologic data from thousands of wells highlights zones with optimal brine potential and formation characteristics
- Over six decades of continuous brine mineral extraction operations

Significant infrastructure to support growth

- Region is home to one of North America's largest and oldest brine processing industries
- Availability of water, power, natural gas, road, rail and skilled labor
- Gulf Coast chemical industry provides ease of access to key reagents



Strategically Located for Domestic Market

U.S. needs significant supply growth to meet forecasted lithium demand

- **Advantaged location** gives SLI a sustainable competitive edge to be a key supplier to **emerging energy storage, electric vehicle and battery manufacturing markets in North America**
- **Existing access to road, rail, navigable rivers**, and close tie-in to gulf coast are key sustainable strategic advantages to SLI's asset base
- **Local workforce and regulatory regimes** that have over half a century of experience, oil and gas production, refining and chemical manufacturing

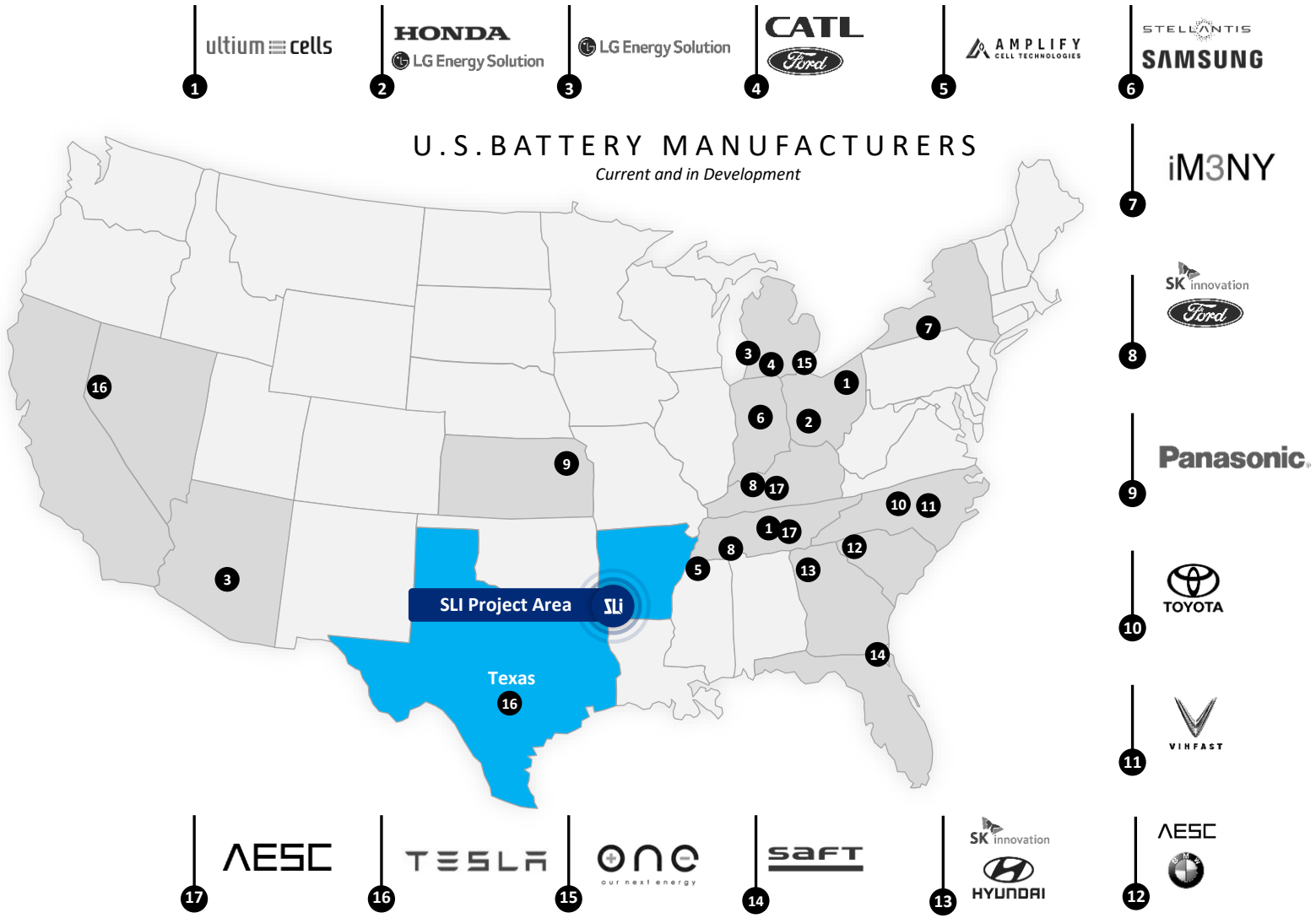
~100 Miles to TX

~700 Miles to TN

~1,000 Miles to MI

Current Supply Chain

20,000+ Nautical Miles to U.S. Manufacturing[1]



1. Assumes mining location in western South America or Australia, refining in China, cathode production in Korea, and OEM destination in the US.

Projects Overview

SOUTH WEST ARKANSAS PROJECT

Ownership:
55% Standard Lithium[1]

Key Feature:
Average concentration of **437 mg/L** with results **up to 616 mg/L[2]**
Closed **$225 million grant** from DOE[3]
Included as transparency project on Federal Permitting Dashboard[4]

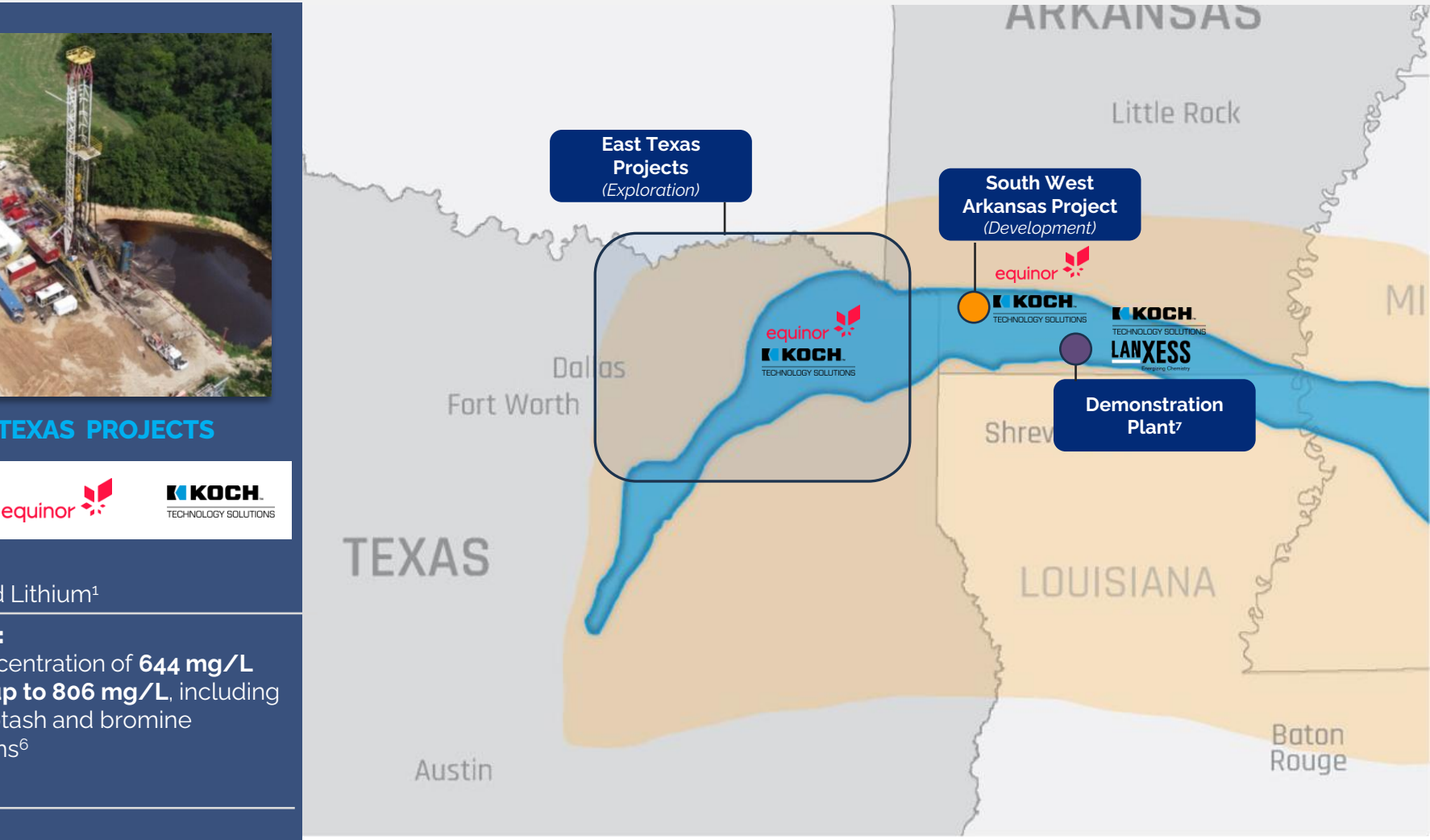
Production:
Capacity of **45,000 tonnes per annum ("TPA") lithium carbonate**, to be developed in two phases of 22,500 TPA, with first phase online in 2028[5]

EAST TEXAS PROJECTS

Ownership:
55% Standard Lithium[1]

Key Feature:
Average concentration of **644 mg/L** with results **up to 806 mg/L**, including significant potash and bromine concentrations[6]

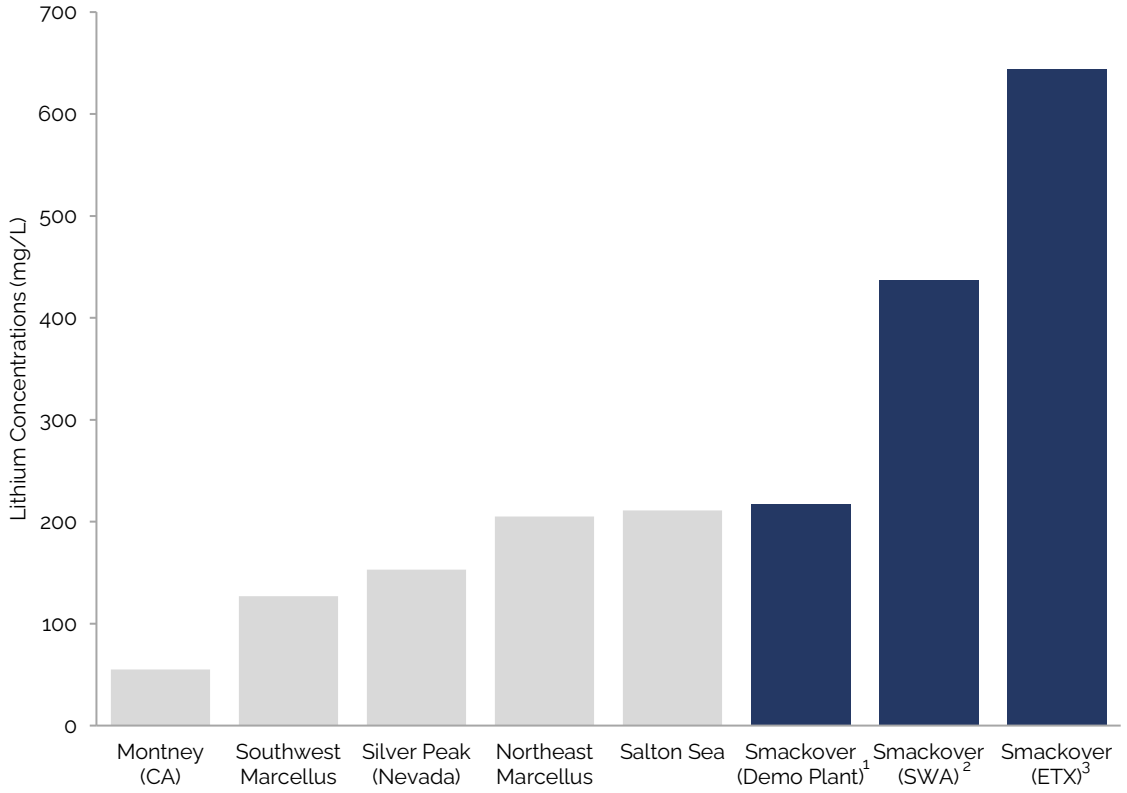
Production:
Targeting a resource-based capacity for potential production of **100,000+ TPA LCE**



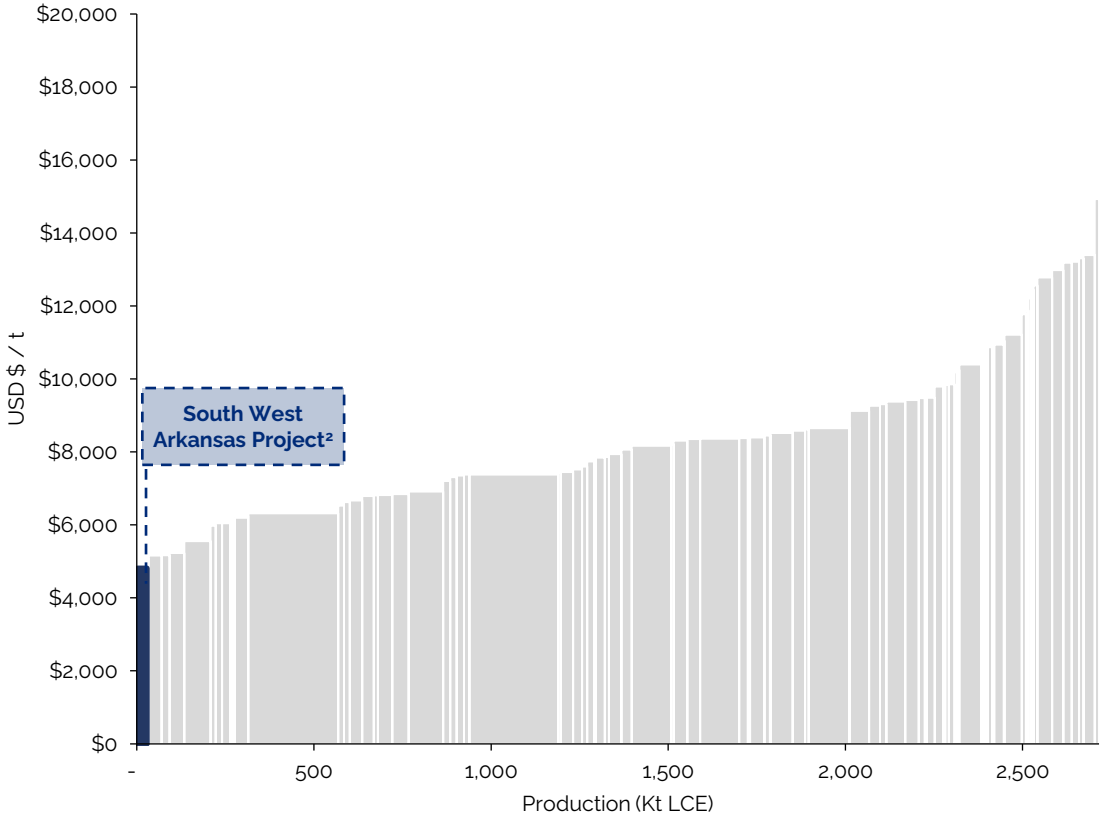
1. Standard Lithium press release on May 8, 2024
2. PFS as of Q3 2023; max grade referenced in press release dated July 15, 2025
3. Standard Lithium press release on January 16, 2025
4. Smackover Lithium press release on April 21, 2025
5. The project's design is being updated from its original Preliminary Feasibility Study ("PFS"). A Definitive Feasibility Study ("DFS") and Front-End Engineering Design ("FEED") are currently underway to support this expansion.
6. Standard Lithium press release on October 25, 2023
7. The Company's Demonstration Plant is located at the Lanxess South facility near El Dorado, AR. Further commercial development of the Lanxess Property Project has not been ruled out, but the Company's focus is centered on the joint venture ("JV") opportunities in South West Arkansas and East Texas

High Grades Drive Compelling Economics

The Smackover Formation's high lithium concentration drives low-cost estimates – Standard Lithium anticipates its projects to rank among first quartile on global lithium cost curve



NORTH AMERICAN BRINE LITHIUM GRADES



GLOBAL LITHIUM PRODUCTION COST CURVE[4]

1. Lanxess DFS as filed July 23, 2025. The reference point for average lithium concentration in the Phase 1A DFS is the brine inlet to the Company's Demonstration Plant
2. South West Arkansas PFS dated July 23, 2025. Operating costs based on average annual production of 30,000 tonnes lithium hydroxide monohydrate ("LHM"). $741/t royalties based on PFS (does not include lease-fees-in-lieu of royalties)
3. Standard Lithium press release on October 25, 2023
4. Source: Benchmark Minerals Q2 2025 Lithium Forecast. Reflects C1 costs which include mining/extraction, processing, G&A, off-site transportation, port loading & storage, concentrate shipping, chemical conversion, chemical shipping, by-product credits *plus* royalties/production taxes. Based on 2030 LCE production and cost

Capital Formation “Pyramid”

Standard Lithium is committed to maximizing shareholder returns through a strategic and methodical approach to capital formation

Leveraging strategic partnerships to maximize project success

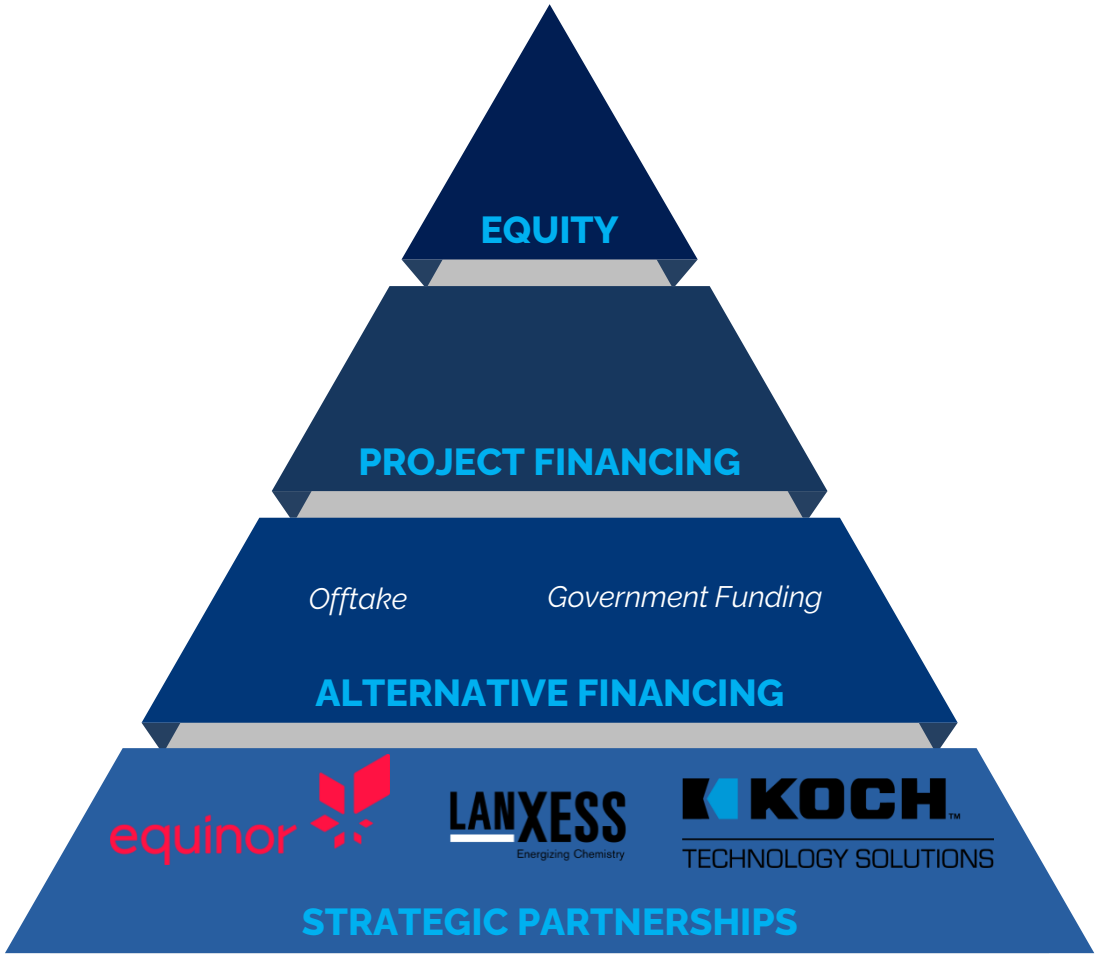
- Standard Lithium has secured investments from Koch Industries and Equinor
- Industry-leading partners bring technical, operational and strategic capabilities in addition to financial strength

Prioritizing low-cost, limited-recourse financing

- Closed $225 million grant from the DOE which will support construction of Phase 1 of the SWA Project[1]
- Process underway to secure project debt financing and customer offtake

Focused on maximizing shareholder value by limiting dilution

- Equinor investment done at the project level without issuance of any Standard Lithium shares
- **Prioritize and execute at the “base of the pyramid and build up”,** lowering the cost of capital as we de-risk the projects, minimizing parent company equity raise requirements



1. Standard Lithium press release on January 16, 2025

Strong Federal Support for SWA Project

Backing from Department of Energy and Executive Office's National Energy Dominance Council reinforces SWA Project importance and development timeline

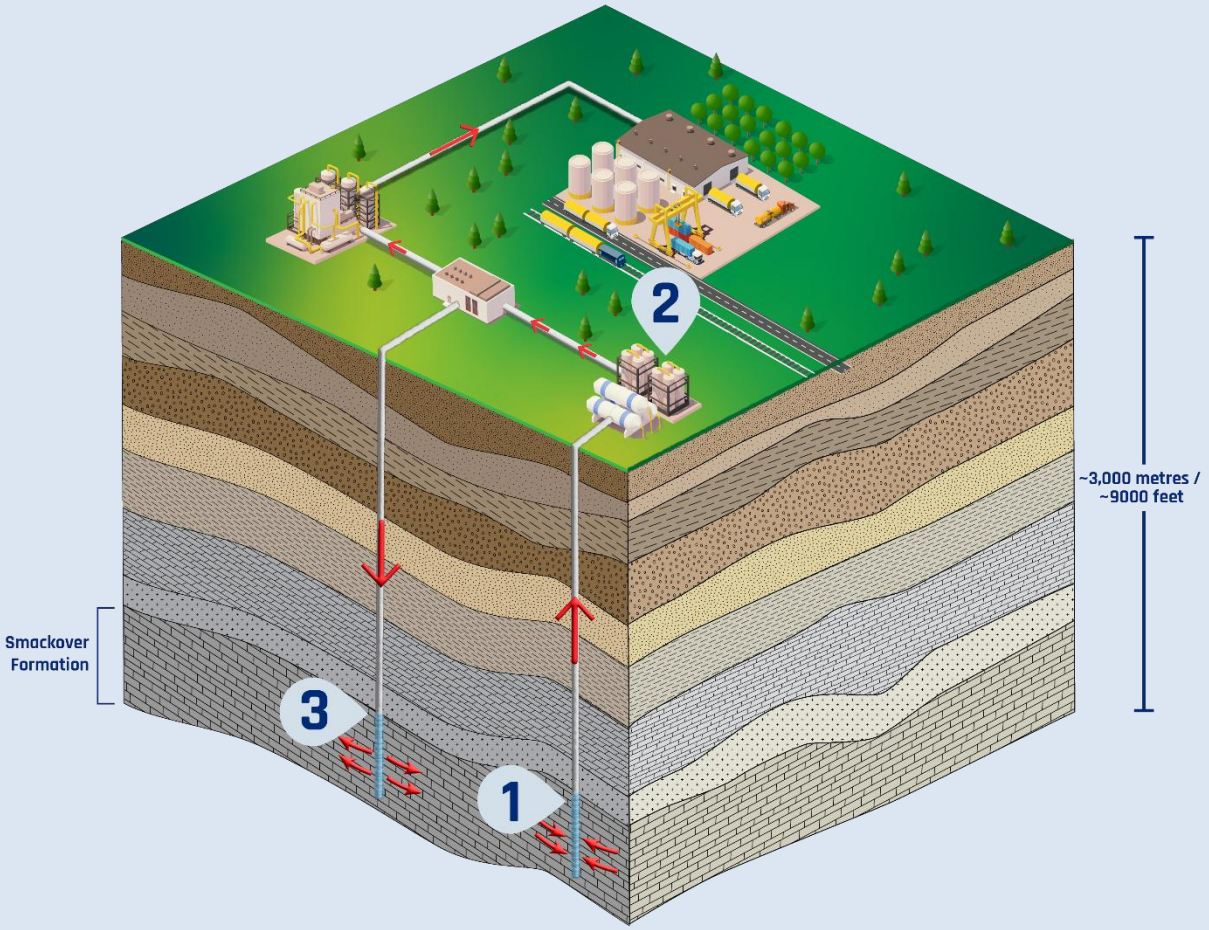
KEY HIGHLIGHTS

- SWA Lithium LLC is recipient of **$225 million grant from the DOE** to support the construction of Phase 1 of the SWA Project[1]
- Grant was part of the second wave of funding under the Infrastructure Investment and Jobs Act aimed at expanding domestic manufacturing of all segments of the battery supply chain and **increasing production of critical minerals in the U.S.**
- In response to Executive Order 14241, SWA Project has been **included on the Federal Permitting Dashboard as a transparency project[2]**, a designation that ensures increased transparency, accountability and predictability in the permitting review process
- The SWA Project was one of only three domestic lithium projects, and the sole DLE initiative, to be included on the initial selected projects list

1. SWA Lithium LLC is a jointly-owned U.S. subsidiary of Standard Lithium and Equinor ; The project's design is being updated from its original PFS, and now targets a larger total output of 45,000 TPA of lithium carbonate, to be developed in two phases of 22,500 TPA each. A DFS and FEED are currently underway to support this expansion, targeting a final investment decision by end of 2025.
2. Permitting Council press release dated April 18, 2025, *"Trump Administration Advances First Wave of Critical Mineral Production Projects"*

Strategic Partnerships: More than Capital

From Brine to Battery Grade Lithium – Leveraging Strategic Partnerships



Refining and Direct Lithium Extraction

- Utilizing Koch's proprietary Lithium Selective Sorption (LSS) process across the Smackover
- Standard Lithium has regional exclusivity in the Smackover for the LSS process

KOCH TECHNOLOGY SOLUTIONS

1 2 3

Reservoir and Well Development

- Lithium concentrations are highest recorded outside of South America
- In Arkansas, 8+ billion gallons of brine extracted, processed and reinjected annually

equinor LANXESS Energizing Chemistry

Production and Reinjection

- Equinor brings significant experience in designing and delivering onshore facilities
- Standard Lithium's Demonstration Plant provides de-risking and valuable learnings to go forward production

equinor LANXESS Energizing Chemistry

Successful Field-Test Completes DLE De-risking

Smackover Lithium successfully completed the de-risking of its DLE technology with a field-test at its South West Arkansas Project

- Field-pilot DLE facility exceeded key performance criteria to confirm engineering design – ***recovered over 99% of lithium from brine, sourced from SWA Project well***
- Rejection of key contaminants all within acceptable tolerance of design criteria
- Field-pilot plant completed 497 DLE cycles, processing 2,385 barrels of brine
- Approximately 970 gallons of concentrated and purified lithium chloride solution (6% LiCl solution) produced
- Lithium chloride solution sent off-site to potential equipment vendors for conversion into battery-quality lithium carbonate with positive results
- ***Samples expected to play a key role in qualification process with prospective off-take partners***
- Data from field-test supplements the roughly 35 million gallons of brine processed at Standard Lithium's Demonstration Plant since 2020
- Field-test is viewed as ***final testing of flowsheet*** and results are expected to underpin the SWA Project's FEED and DFS

Source: Smackover Lithium press release dated March 11, 2025

Proven Technology at Commercial-Scale

- In March 2024, Standard Lithium successfully installed and commissioned the Li-Pro TM Lithium Selective Sorption (LSS) commercial scale unit supplied by KTS
- This unit is believed to be the largest known commercial-scale column operating in a DLE facility
- ***On October 28, 2024, SWA Lithium, the JV between SLI and Equinor which is developing the South West Arkansas Project, announced that it had entered into a license agreement with KTS to deploy and use KTS' Li-Pro LSS technology at the JV's commercial plant for the SWA Phase 1 Project***
  - The license agreement includes certain technology performance guarantees for lithium recovery (+95%), contaminant rejection (+99%)[1], and water use
- During a four-month continuous operating period (1st April to 31st July 2024), the Li-Pro LSS process achieved:
  - Avg. lithium **recovery efficiency of 95.4%**
  - Avg. key **contaminant rejection of +99%**
- Over **12,000 operational cycles** using Li-Pro™ LSS technology at the Demonstration Plant and roughly **35 million gallons** of Smackover brine processed
  - Equates to **approximately 142 tonnes LCE** processed through the Company's DLE flowsheet[2]

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1. Impurities included in performance guarantee include Calcium, Sodium, Potassium & Magnesium
2. Illustrative calculation based on assumed 90% lithium recovery at average input of 220 mg/L; does not reflect actual LCE produced or sold

Large Demonstration Plant in Operation Since 2020

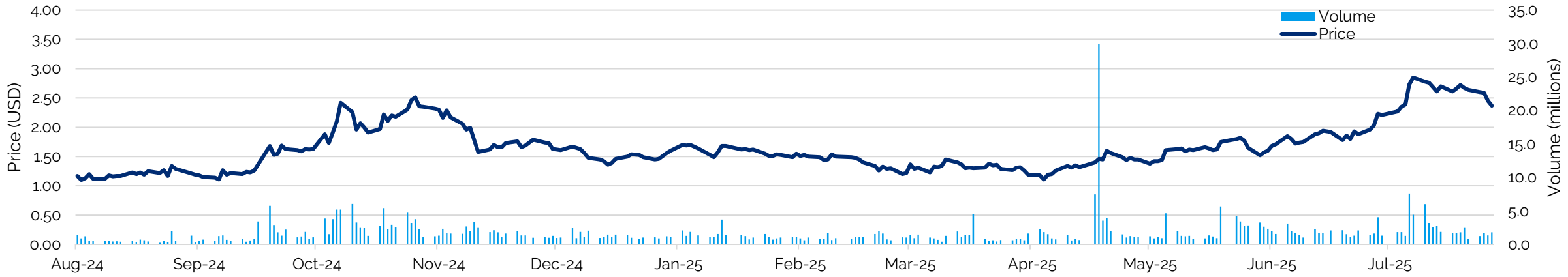
Capitalization & Liquidity

Financial Highlights

- Positive working capital with no revolving or term debt obligations as of June 30, 2025
- Closed a $225 million grant from the DOE[3], one of the largest ever awarded to a U.S. critical minerals project
- Largest shareholder (Koch, 6.6% of total outstanding shares) is strategic partner with significant alignment across the organization[4]
- Sole funding by JV partner, Equinor, at the SWA Project and East Texas projects completed in second quarter 2025; near term commitments to be funded through cash on hand, availability under at-the-market equity offering program, and DOE cost reimbursements at SWA

Liquidity & Capitalization[1] (USD millions)

Cash	$33.8
Debt	$0
Shares Outstanding (mm)[2]	204.0
Share Price (USD)	$2.84
Market Capitalization	$579.5



Source: FactSet

1. Liquidity as of June 30, 2025, NYSE trading data as of August 8, 2025,
2. Shares Outstanding as of August 8, 2025 Management's Discussion & Analysis
3. DOE grant awarded to SWA Lithium LLC, a jointly-owned U.S. subsidiary of Standard Lithium and Equinor
4. Ownership figures as per Koch, Inc. Form 13-F dated December 31, 2024

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Appendix

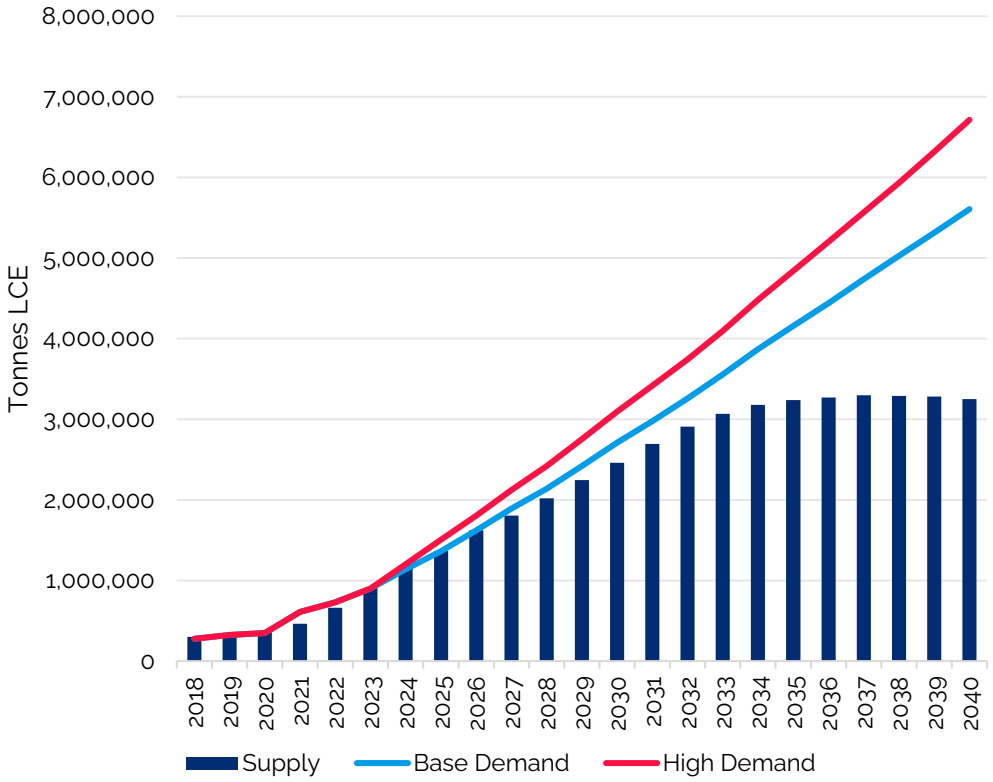
August 2025

www.standardlithium.com

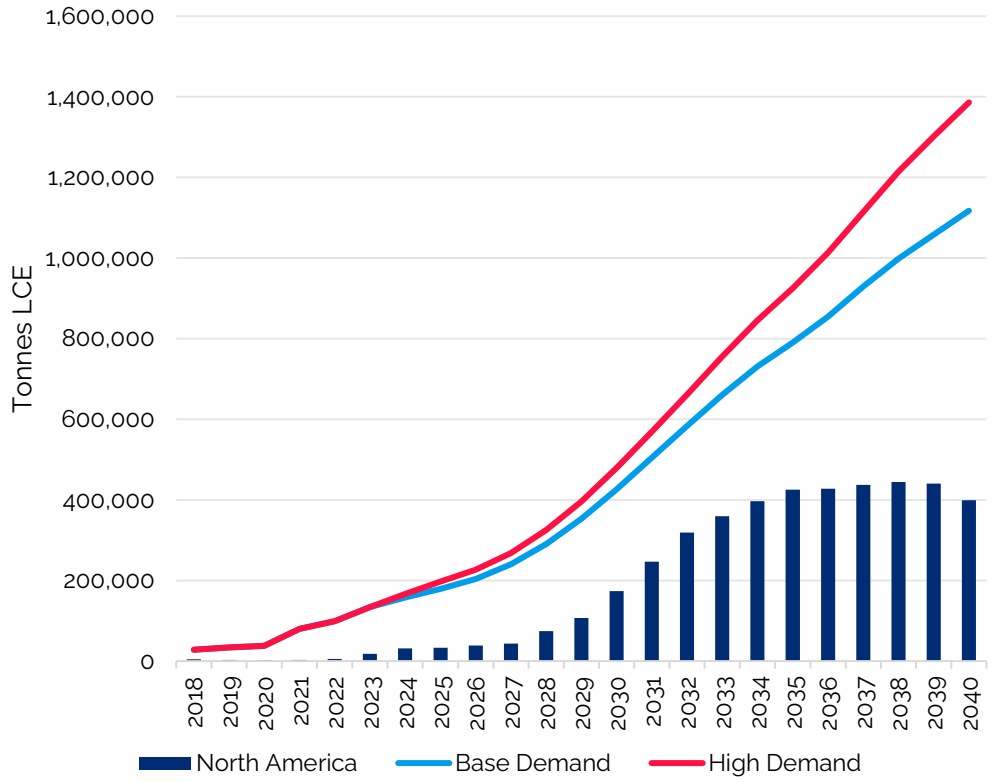
Compelling Market Fundamentals

A looming global supply gap, and a substantial market deficit in North America driven by U.S. policy demands, presents a compelling opportunity for new projects

Global Supply Demand Balance



Regional Supply Demand Balance



Source: Benchmark Minerals Q2 2025 Lithium Forecast.

Koch | Experts in Mineral Processing

Koch Industries brings significant expertise and experience throughout the energy chain

KOCH

A multinational conglomerate with over 80 years experience in delivering life's necessities – from today's basic needs to tomorrow's technological breakthroughs

Second-largest privately held company in America, with over 80 years of experience in energy and chemicals

- Founded as an engineering and refining company, the Koch family of companies has a deep understanding of the energy value chain
- With operations across 60 countries, Koch employs over 120,000 people

Significant alignment between Standard Lithium and Koch Industries

- Joint Development Agreement with Koch Technology Solutions to collaborate on technology & process solutions for commercial DLE
- License agreement with KTS to deploy and use KTS' Li-pro LSS technology at the commercial processing facility for Phase 1 of the SWA Project[1]
- Koch is currently the largest shareholder in Standard Lithium (6.6%)

1. Press release dated October 28, 2024; license agreement was executed by SWA Lithium, the JV between Standard Lithium and Equinor which is developing the SWA Project

Equinor | International Pioneers in the Energy Transition

Equinor are energy experts and world-leaders in renewable and low carbon solutions

An international energy company headquartered in Stavanger, Norway with operations in oil & gas, renewables and low carbon solutions

Equinor is a leading multinational energy company with operations across 36 countries

- Historically focused on oil & gas, Equinor has expanded its presence in renewables & low carbon as well as innovation and digital
- Equinor has a strong commitment to sustainability, evidence of which can be found in its commitment to the battery value chain

Equinor is a global premier resource developer with significant experience in project development and onshore facilities

- In addition to significant experience in subsurface assessment and production, Equinor has a track record of project development and execution with onshore facilities around the world
- Equinor's ability to provide resource development and facilities expertise significantly de-risks project execution

Equinor is one of the world's largest energy companies

- Equinor brings a multi-billion dollar market cap and investment grade balance sheet to support project execution

South West Arkansas (SWA) Project[1]

STATUS: Front-End Engineering Design (FEED)

The SWA Project with

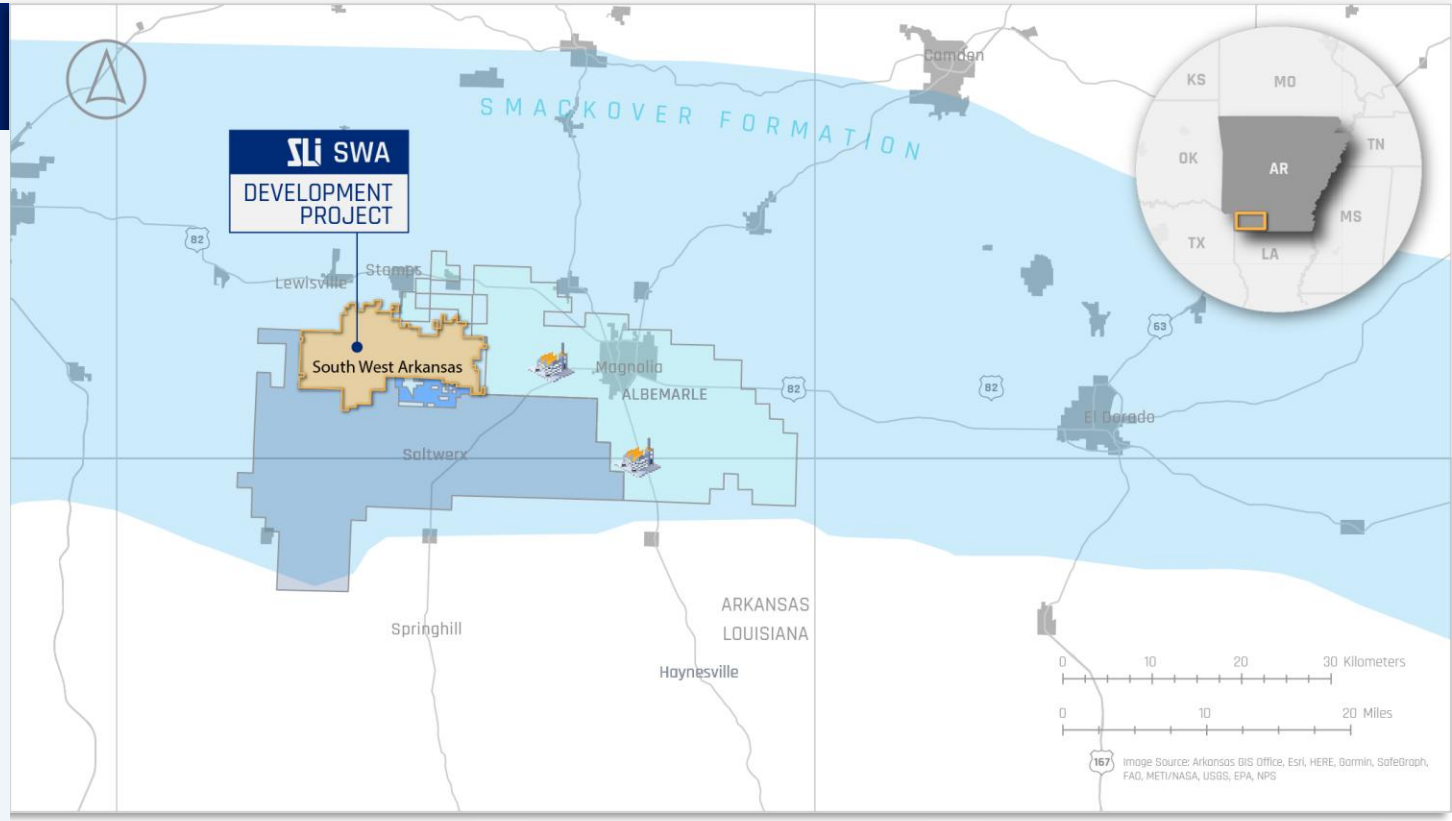
- Lithium avg. grade of 437 mg/L (max of 616 mg/L)[2];
- Planned annual output of 45,000 tonnes lithium carbonate;
- Existing project and regional infrastructure;
- Strong local workforce;
- Friendly regulatory environment; and
- Path to FID by end of 2025…

…results in the SWA Project being a globally significant potential source of lithium

Location: Adjacent to Albemarle's brine operations and Exxon Mobil's lithium exploration project, the SWA Project benefits from existing infrastructure, regional expertise and established regulatory regime

Lithium Grade: The SWA Project boasts an average lithium grade of 437 mg/L with a max grade of 616 mg/L, higher than other North American brine projects

Significance: Base case production targeting 45,000 TPA of battery-quality lithium carbonate, broken into two stages of 22,500 tonnes each



DLE De-risking Complete[3]

Successful field-test surpassed key performance criteria

FEED & DFS Near Completion

Results anticipated in Q3 2025

Targeting FID by Year-End 2025

Offtake & finance process underway

1. The project's design is being updated from its original PFS. A DFS and FEED are currently underway to support this expansion
2. PFS as of Q3 2023; max grade referenced in press release dated July 15, 2025
3. Smackover Lithium press release dated March 11, 2025

SWA - Pathway to Final Investment Decision

Key Milestones at South West Arkansas

Royalty ☑

Received royalty rate approval from the Arkansas Oil and Gas Commission for Phase I of SWA Project[1]

FEED & DFS

Flowsheet has been finalized & DLE technology de-risked

Customer Offtake

Advisor has been selected to lead customer off-take and project finance process; discussions underway

Project Finance

Advisor has been selected to lead customer off-take and project finance process; discussions underway, with final negotiation subject to results of off-take discussions

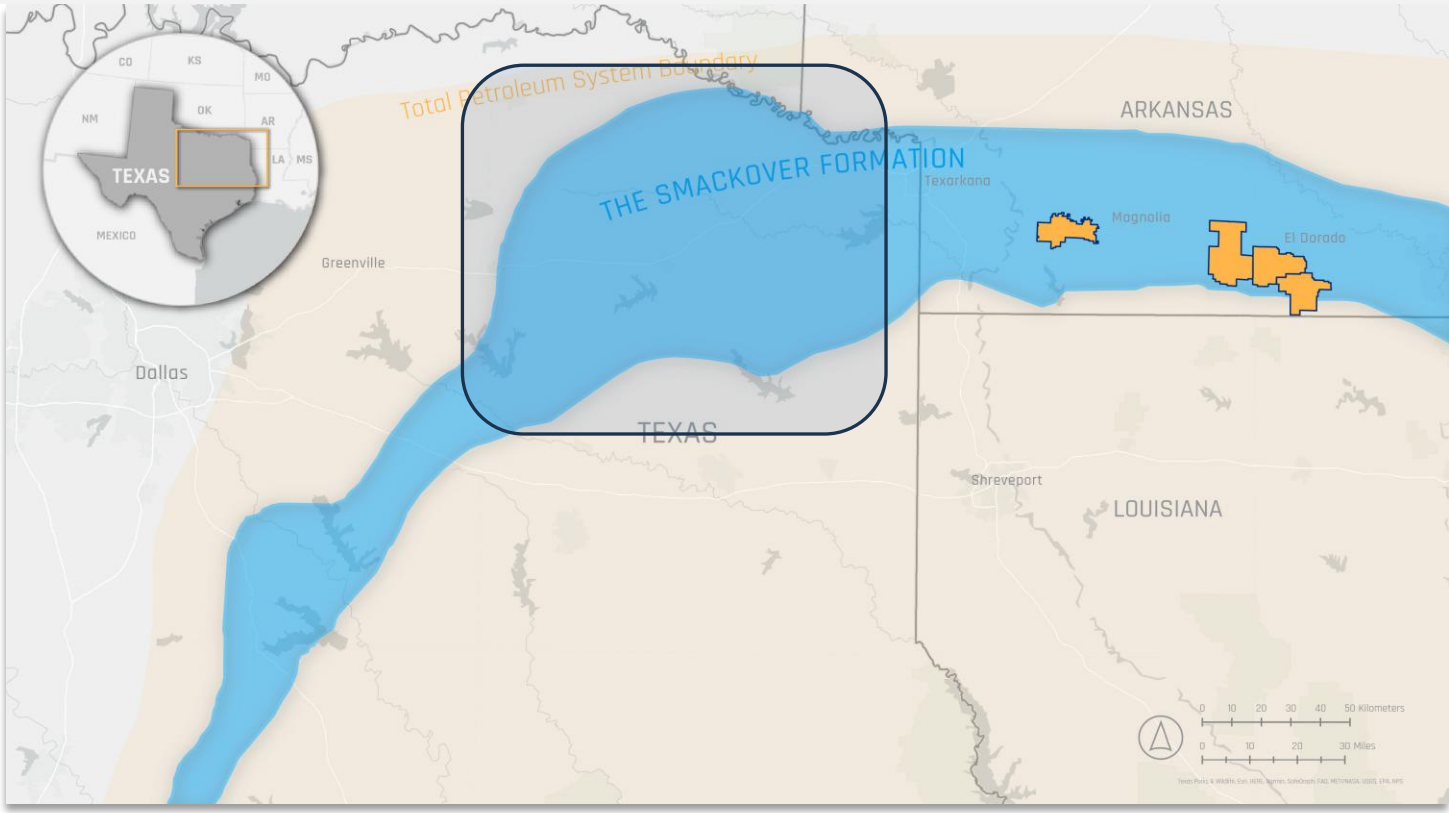
Project milestones to be completed sequentially prior to Final Investment Decision

Targeting Final Investment Decision by Year-End 2025

1. Press release dated May 29, 2025

East Texas Greenfield Exploration

Standard Lithium has secured a significant brine lease position, drilled and sampled lithium brine showing significant potential to develop a resource



644 mg/L
Average Lithium Concentration[1]

806 mg/L
Highest Lithium Concentration[1]

Opportunity to develop large-scale, industry-leading lithium projects in Texas

1. Standard Lithium press release on October 25, 2023

East Texas Greenfield Exploration

Targeting locations with optimal brine grades to secure a foothold for large-scale production

STATUS: Resource Definition

- Team of Smackover specialists have been working for the past 4 years to identify the most prospective areas to secure high-quality brine resources in East Texas
- **Area of interest spans ~185,000 acres**, broken into several project areas. **Have leased a significant portion of the first project area's gross footprint of 65,000 acres;** leasing ongoing
- Three wells drilled with additional work planned for 2025 - 2026
- Samples collected to date were tested by third parties to confirm **lithium concentrations ranging from 298 to 806 mg/L[1]**
- To the understanding of management, these are some of the **highest tested lithium brine concentrations in North America**
- **Planned maiden inferred resource report expected to be released by the end of Q3 2025**

1. East Texas samples from March 28, 2023 and October 25, 2023 press releases

Standard LITHIUM

Leading a new era of responsible lithium production in America

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RESOURCE • TECHNOLOGY

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