

Smackover Play

Lithium brine basin resource report



Applications

- Regional-level basin screening as a first step to detailed subsurface modeling
- Quick identification of high lithium potential acreage positions
- Ability to high-grade prospects with lithium sweet-spot mapping on the entire study region

Features

- Analysis for a 27,080-mi² (17-million acre) area across Arkansas and Texas
- Stratigraphic understanding of structures in the Smackover Play
- Porosity-to-depth curves using PetroMod™ basin modeling software
- Effective porosity map for entire Smackover brine play
- In-place lithium resource for Smackover brine play of 9,304 mi² (6 million acres), including sensitivities
- Regional hydrodynamic flow path pattern for Smackover brine play for initial well placement concept

The 3D basin model report for the Smackover Play in Southwest Arkansas and Texas provides a static model of the estimated lithium resources in place to help identify the sweet spots containing the highest lithium tons per acre. This accelerates the exploration, extraction, and production of lithium.

SLB reviewed more than 6,800 wells in the Smackover trend, alongside a comprehensive understanding of the burial history. This facilitated the construction of a 3D lithium brine resource model. Additionally, well logs, wireline porosity logs, temperature data, geochemical data, lithium concentration measurements, and historical basin evolution information were incorporated into the assessment. SLB analyzed numerous data sources, extracting and sanitizing data for the 3D basin model. These data sources included various federal and state organizations, regulatory bodies, university databases, as well as scientific and company publications.

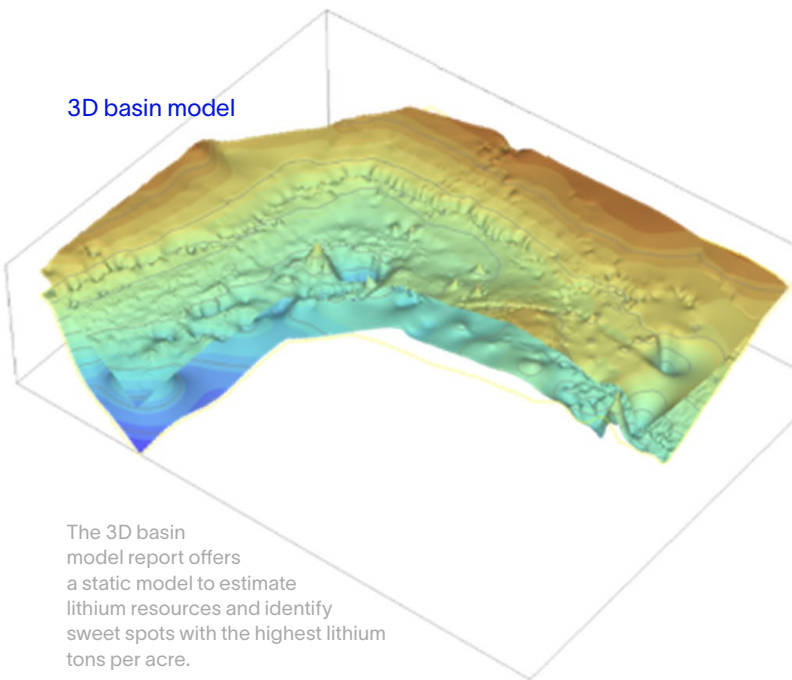
How it improves performance

- Review an interpreted report by SLB subsurface experts, using robust lithium proprietary workflows vs. spending time collecting and consolidating data and building models which might need additional review.
- More accurately assess the potential and value of a specific acreage.
- Estimate lithium resources in place with detailed workflows and datasets that can be applied on specific acreage chosen from this report.

Additional information

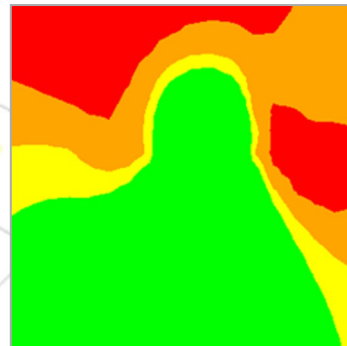
The basin model was built using the SLB Petromod basin modeling software to reconstruct the evolution of the Smackover sedimentary basin, particularly the porosity cube for the lithium bearing brine reservoir and to calculate the lithium resource in place.

3D basin model



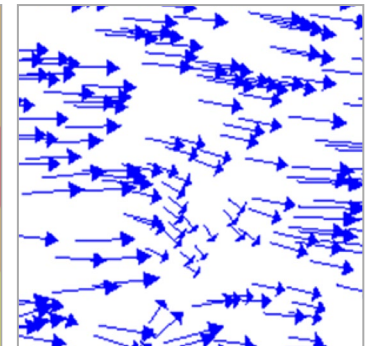
The 3D basin model report offers a static model to estimate lithium resources and identify sweet spots with the highest lithium tons per acre.

Sweet spot map



The 3D basin model report offers a static model to estimate lithium resources and identify sweet spots with the highest lithium tons per acre.

Hydrodynamics



The regional hydrodynamic flow path pattern for the Smackover brine play is used to determine the initial well placement concept.

Contact us →

Email us: sne@slb.com

This report is available for purchase.

For further refinement, higher resolution, or dynamic versions of this model—or to build your own lithium-resource-in-place models using your proprietary data—contact one of our subsurface experts.