

PRESS ROUNDTABLE:

**Powering a renewable
future through lithium
extraction from
unconventional sources**

Thursday, 17 December
1:00 pm US Eastern Time

AGU FALL
MEETING

**SHAPING
THE FUTURE
OF SCIENCE**

INFORMATION FOR REPORTERS

- Reporters: Please ask your questions directly to the panelists
- Slides from this presentation are available in the Fall Meeting Media Center: <https://www.agu.org/Fall-Meeting/Pages/Attend/Media-Center>
- This event will NOT be recorded
- Questions and technical issues: Email news@agu.org

Lithium Extraction from Unconventional Resources

Powering a Sustainable Future





Lithium production cannot meet demand and remain cost-efficient without significant technology advances catalyzed by better understanding of **lithium extraction** from **unconventional** domestic resources, such as the brine left over from geothermal energy production.

Conventional lithium resources include salar evaporation ponds and lithium silicate ores. Nearly all lithium production takes place outside of the U.S.

The demand for lithium, a key ingredient of most batteries, requires us to start producing lithium domestically by 2024.



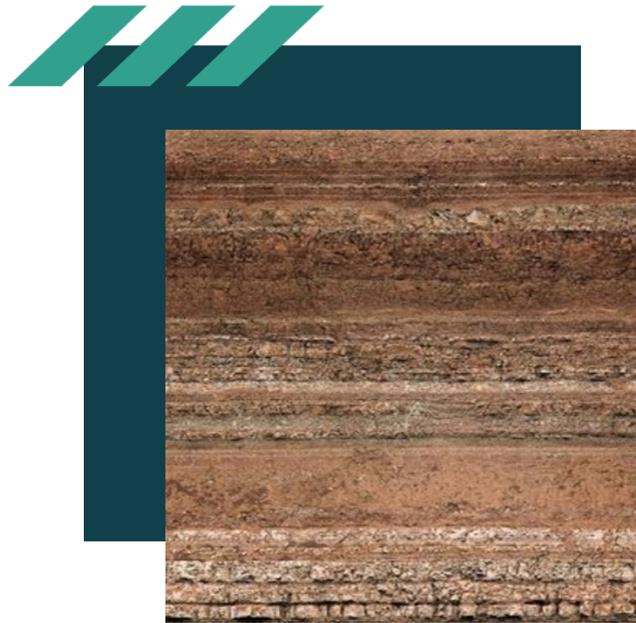
Fortunately the United States has huge reserves of lithium and other energy-critical elements, much of it in the American West, including California. Research is underway to maximize their potential.

THE PRESENT:
GEOTHERMAL LITHIUM
BRINE



~1000 kTons Li
180 ppm Li

COMING SOON:
SEDIMENTARY
LITHIUM



~10,000 kTons Li
1000-2000 ppm Li

THE NEXT FRONTIER:
SEAWATER



>200,000 kTons Li
<0.1 ppm Li

Berkeley Lab has established the Lithium Resource Research and Innovation Center (LiRRIC) to power lithium innovation to accelerate the resource to recharge cycle.

Through the new center, the national laboratory's resource experts in environmental science are guiding research and development into lithium extraction technologies so that science breakthroughs lead to the greatest economic and environmental benefits.



TODAY'S PANEL MEMBERS



MICHAEL
WHITTAKER

- Lithium Resource Research & Innovation Center (LiRRIC) Project Lead
- Research Scientist, Energy Geosciences Division, Earth and Environmental Sciences Area, Berkeley Lab



WILLIAM
STRINGFELLOW

- Environmental Staff Engineer
- Director, Ecological Engineering Research Program, Berkeley Lab



HANNA
BREUNIG

- Energy/Environmental Policy Research Scientist/Engineer
- Sustainable Energy Systems Group, Berkeley Lab



PETER
FISKE

- Executive Director, National Alliance for Water Innovation, Headquartered at Berkeley Lab



mining methods are very
expensive: requiring sulfur
to produce the vast
amount of sulfuric acid needed in
the world.

https://www.youtube.com/watch?v=kS5C8kt2odI&feature=emb_title

THANK YOU

See you next year!

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