

## **Balancing Act: Lithium Extraction and a New Era of Legal Issues**

*By Stephanie Noble and Nicholas Shum*

As the world moves toward cleaner energy, lithium has become crucial, powering electric vehicles and renewable-energy storage systems. With lithium demand [set to increase more than 40-fold by 2040](#), the race to extract this critical mineral has intensified, especially in the United States.

But this race has created complex legal questions, involving leasing rights, water issues, and ownership and royalties—concerns echoing decades-old debates around oil and gas extraction. Managing resource use in environmentally sensitive or culturally significant areas is yet another important consideration for companies seeking to meet the growing lithium demand.

For industries that need lithium now and in the coming years, navigating these emerging issues will be both a legal and business imperative.

### **Leasing Rights and Legal Ambiguity**

Companies extract lithium largely on land leased from federal, state, or private landowners, each governed by distinct sets of laws.

Given that lithium deposits and traditional energy resources often overlap, companies are eager to explore whether their leases for fossil fuels also grant rights to lithium extraction, an issue that in many jurisdictions remains unsettled and is attracting increasing legal scrutiny.

While some argue that lithium's distinct characteristics and uses warrant separate agreements, others contend that existing oil-and-gas leases could cover lithium. The answer to the question depends on both the language of the lease and the case law and statutory framework of the relevant jurisdiction.

### **Entering a Gray Area**

Another critical issue centers on the ownership of lithium within produced water. Produced water—a byproduct of oil and gas extraction—can contain lithium, raising questions over who owns this lithium and how it should be treated under existing oil-and-gas lease agreements.

Historically, produced water has been viewed as a waste product, but as the potential to extract lithium from it becomes economically viable, companies and landowners are rethinking the resource's value.

Ownership of lithium in produced water may vary depending on the circumstances of the leasing arrangement in place, with implications for who benefits from any potential revenue. Questions over ownership hinge on lease language and state-by-state interpretations of

mineral rights, a legal gray area that could see increased litigation or regulatory intervention in the coming years.

For example, in a [recent case addressing ownership of produced water](#) in the context of an oil-and-gas lease, a Texas Court of Appeals held that produced water is an “oil and gas waste” and thus belongs to the lessee producer. A petition for review is pending before the Texas Supreme Court.

If courts find in future cases that produced water containing lithium falls under water or mineral rights held by the lessor landowners, companies aiming to extract it for value could face further complexity.

### **Determining Fair Compensation Among Royalties and Revenue**

As the economics of lithium extraction have evolved, so too has the discussion around royalties. What royalties are owed on lithium, and how should they be calculated?

One major issue to determine is under what legal framework the lithium is to be extracted. If the lithium is extracted under a lithium lease, the answer should be relatively straightforward. But what about when the producer under an oil-and-gas lease extracts lithium from produced water?

In those situations, the answer depends largely on whether lithium is treated as a mineral resource under existing law. If lithium is determined to fall under rules similar to those for traditional minerals, lessors may be entitled to royalties, akin to those on oil and gas extraction.

For companies, the ambiguity around lithium royalties represents both a financial risk and an operational challenge. Without clarity, companies face uncertainty in planning long-term revenue models and could encounter disputes with landowners or government entities.

If lithium is to be royalty-bearing, calculating a fair royalty structure could become complex, as it must incorporate the value added by lithium extraction in addition to any oil or gas production. In some cases, companies might find it advantageous to negotiate specific royalty terms for lithium, thereby lowering the risk of litigation.

### **Water Rights and Environmental Risks**

Lithium extraction often requires significant water resources, especially in lithium brine mining, which involves pumping groundwater.

In regions where water scarcity is a growing concern, water rights for lithium extraction are contentious. Western U.S. states, particularly Nevada, hold rich lithium reserves, but these areas are vulnerable to drought and other climate-related impacts, further complicating water use.

Water rights disputes have emerged as a focal point for environmental advocates, local governments, and tribal nations alike. Water-intensive extraction risks depleting local aquifers, harming agriculture and natural ecosystems, so some states require that companies employ sustainable lithium-extraction techniques.

### **Charting the Future**

While lithium is at the center of plans for a sustainable energy future, its extraction raises pressing questions about leasing rights, water use, and environmental impacts. As lithium demand continues to grow, both companies and policymakers must be creative, tactful, and forward-thinking in how they confront these questions.

For companies, understanding the legal landscape around lithium leasing is paramount for managing risk and securing long-term viability. In time, regulatory updates and additional development in the case law may clarify which existing lease structures cover lithium, who owns lithium in produced water, and how royalties should be handled.

For now, however, companies and landowners must navigate these issues case by case, mindful of the potential for precedent-setting decisions and new standards that could redefine lithium extraction and the broader energy transition.

*Stephanie Noble and Nicholas Shum, partners at Vinson & Elkins LLP, practice in the firm's Complex Commercial Litigation group.*