Texas Lawyer

Strategic Considerations for Developing Underground Storage Assets in Texas

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The energy transition is driving underground energy storage development for an array of energy products, from green hydrogen to carbon dioxide and compressed air energy storage. However, in Texas, which has been a national leader in underground storage for natural gas and other hydrocarbon products, the case law has been long unsettled regarding whether the surface estate or mineral estate owns underground pore space used for energy storage. The absence of legislation and unsettled case law in a state with commonly severed surface and mineral estates has added inefficiency to the work of developers, potentially requiring them to acquire surface and mineral estate properties to avoid legal claims. A 2022 Texas Court of Appeals case, *Myers-Woodward v. Underground Services Markham*, No. 13-20-00172-CV has the potential, if not overturned by the Texas Supreme Court where it is pending for review, to settle this case law in favor of the surface estate. This article summarizes several key title issues in *Myers-Woodward*, and also raises strategic considerations for developers seeking to de-risk underground storage projects in Texas.

Mineral Estate vs. Surface Estate: Who Owns the Pore Space?

In *Myers-Woodward*, a landowner originally entered a mineral lease with a salt mining company to produce salt in an underground formation. Producing such salt through water solution mining left behind a pore space (sometimes referred to as a "cavern", "cavity" or "well") which did not naturally exist in the subsurface matrix. The dispute focused on who owns and has the right to use such pore space as a kind of "underground warehouse" to store energy products like oil, gas and other liquids on behalf of third-party customers.

The mineral lessees sought a declaration from the trial court that they had the right to store products in the pore space. They relied upon the Texas Court of Appeals case *Mapco v. Carter*, which held that the mineral

estate owned all rights to pore space where the cavern was formed out of the underground mineral salt being mined. 808 S.W.2d 262, 276 (Tex. App. – Beaumont 1991) ("The underground storage cavern was formed out of the underground mineral salt, being the mineral estate", thus, "[a]ppellees own all rights and appurtenances to their mineral estate.") rev'd in part on other grounds 817 S.W.2d 686 (Tex. 1991).

The landowner contended that its surface estate, notwithstanding the mineral lease, retained ownership of the pore space created as a byproduct of the salt production activities under the mineral lease. Importantly, the mineral lease did not convey a right to the pore space to the mineral lessees.

The trial court agreed with the mineral lessees, holding that they were the owners of the underground caverns because of their salt mining operations. Myers-Woodward appealed the decision, arguing that it owned all of the physical property (referred to as "the matrix underlying the earth"), including both the surface and the subsurface, but excluding the minerals subject to the lease.

In response on the appeal, the mineral lessees argued that (1) the court should distinguish between naturally occurring subsurface pore space and those artificially created and (2) because the cavern at issue was a byproduct of their salt mining operations and required technical maintenance operations provided by the mineral lessees, they should be entitled to ownership of the subsurface pore space.

The appellate court ruled in favor of Myers-Woodward because of "well-recognized, decisional law" in Texas holding that the "mineral interest owner owns the minerals but not the subsurface."[1] The case is now pending in the Texas Supreme Court.

Considerations for De-Risking Underground Storage

Clear Conveyance of Right to Pore Space and Right to Store Products in Mineral Leases or other Agreements. Parties can avoid disputes like those in *Myers-Woodward* by clearly drafting in mineral estate conveyances or lease agreements who owns the title to existing or produced pore space. Even if the surface estate owner retains title to pore space under the agreement, the mineral lessee could acquire a right to store products on behalf of third parties, in which case the parties should establish the term of such right (whether it is fee simple determinable or a term limited right) and the kinds of products permitted to be stored. Further, the size of salt caverns typically grows through solution mining operations over time subject to operational permits. Thus, the parties should typically address that the owner to the relevant pore space is not limited to a certain size of that pore space on the contract execution date.

The Business Reality of Surface and Mineral Lessee Co-Dependency in Salt Cavern Operations. In many business arrangements, the surface owner may indeed intend for the mineral lessee to assume all of the business risks associated with salt cavern drilling and operation, in addition to its original rights to produce salt from the mineral estate. There are material regulatory obligations, including spacing, cavern integrity, bonding and decommissioning obligations, all associated with operating a salt cavern for energy storage, which mineral lessees are likely better prepared to assume relative to surface owners. Further, while the mineral lessee

1 The Court citing the following cases for this proposition: "The surface overlying a leased mineral estate is the surface owner's property, and those ownership rights include the geological structures beneath the surface. *Humble Oil & Refining Co. v. West*, 508 S.W.2d 812, 815 (Tex. 1974). The surface owner, not the mineral owner, "owns all non-mineral "molecules" of the land, i.e., the mass that undergirds the surface" estate. *Dunn-McCampbell Royalty Interest v. Nat'l Park Serv.*, 630 F.3d 431, 442 (5th Cir. 2011). The conveyance of mineral right ownership does not convey the entirety of the subsurface. Id. Although the surface owner retains ownership and control of the subsurface materials, a mineral lessee owns a property interest—a determinable fee—in the oil and gas in place in the subsurface materials. Brown v. Humble Oil & Ref. Co., 126 Tex. 296, 83 S.W.2d 935, 940 (1935)."

operates a salt cavern for energy storage, the mineral lessee will manage cavern pressure by injecting water and removing brine solution from the cavern, which can be evaporated to produce marketable salt. In this way, the activities of operating the cavern for storage and producing salt are co-dependent. Practically, the surface owner may not be able to conduct storage operations independent from solution mining. From a contract drafting perspective, if the surface owner does intend to reserve rights with respect to pore space, the surface owner and mineral lessee must clearly define their respective roles, rights and responsibilities both from a legal perspective but also from an operational perspective to avoid disputes.

Expansive above ground infrastructure is often necessary to receive and redeliver products stored in underground facilities. From truck loading to unit trains to pipelines, the larger the underground "warehouse", the greater the need for input and redelivery facilities. Further, brine water produced from solution mining activities and management of storage inventors is often stored in above ground brine ponds, which require large surface acreage to construct. In this way, the surface estate and mineral estate, in salt cavern development, are more fundamentally linked than in traditional oil and gas operations, and surface use agreements play an important role to allocate responsibilities between the parties.

Conclusion

Assuming that *Myers-Woodward* is not overturned by the Texas Supreme Court, and the law becomes more settled that pore space, if not contractually conveyed to the mineral estate, is owned by the surface estate, then surface owners may have new opportunities to exploit their storage assets. However, given the close interrelation between the surface estate and mineral estate in underground storage, developers should be focused on researching title ownership to pore space, as well as structuring agreements that create long term alignment between the surface and mineral estates in order to develop novel salt cavern storage facilities in Texas.

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