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Carbon Capture: Real Property Considerations and Storage Space Ownership

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Recent changes in both state and federal regulations could make the development and implementation of commercial-scale carbon capture and sequestration (CCS) an economically viable option. The two notable regulations are the federal 45Q tax credit (currently \$50 per ton of carbon sequestered) and the California low carbon fuel standard (LCFS) tax credit (currently \$150 per ton of carbon sequestered). However, these developments raise questions regarding real property rights with respect to getting the captured carbon into the ground.

When considering a location for a potential CCS project, it is important to know whose permission you might need when using the subsurface storage space. Because the United States is the only country in the world where the oil and gas are owned by the landowners rather than the government, subsurface property rights can become a complex matter. Subsurface property rights are further complicated when the mineral estate has been severed from the surface estate.

Texas courts, with their long history of mineral rights litigation, have ruled that the surface owner owns “all non-mineral ‘molecules’ of the land, i.e., the mass that undergirds the surface.”¹ The Texas Supreme later added that the surface estate’s use of the underground space may not unreasonably interfere with the mineral estate’s right to extract its minerals.² Based on these cases and others, the prevailing view is that ownership of the surface in Texas includes ownership of the underground storage space.

This line of cases can be potentially misleading for operators contemplating CCS operations in states that adopt the Texas Supreme court reasoning. Following *Lighting Oil*, it is tempting to believe that the CCS project need only secure the surface owner’s permission to inject carbon into underground storage space as long as it doesn’t interfere with an existing drilling operation. However, a review of the 45Q and LCFS permanence requirements reveals that this line of thinking opens the possibility of losing the beneficial tax credit if the mineral owner drilled through the carbon storage space to gain access to their real property in the future.

To get permitted under both the 45Q and LCFS programs, an operator must present a plan deemed very likely to sequester at least 99% of the carbon for at least 100 years. Additionally, the plan must include appropriately designed monitoring and verification measures that will be employed for sufficient time to demonstrate whether the sequestration program is performing as expected. The EPA has issued guidance on the appropriate methods (i.e., enhanced casing requirements) when drilling through an injected carbon plume. However, California has indicated that it will not issue its yearly LCFS certificate to an operator if there is new drilling through the plume. Therefore, it may be necessary to covenant with the mineral owner to prevent behaviors that could lead to a loss of tax credits. For the 45Q credit, this could mean requiring all drilling into and below the plume must be done according to EPA guidelines. In contrast, operators who desire the LCFS credit may need to covenant that no drilling may occur (through the execution of a surface waiver) at or below the plume or otherwise acquire the mineral rights.

Anyone contemplating a CCS project must consider how they will plan to ensure long-term carbon storage when selecting a site for injection. This means understanding the potential for further mineral development and the size and nature of the injection plume on the front end of negotiations or running the risk that additional interests or access will need to be negotiated in the future.