

Trust Law Considerations for Pore Space Ownership in Geologic Carbon Sequestration Projects

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Introduction – Three Concepts

1. Geologic Carbon Sequestration

- Permanent Injection of CO² into geologic formations
- Independent or as part of enhanced oil recovery (EOR)
- Substantial federal incentives for sequestration projects

2. Split-Estate Lands

- Reservation of mineral estate when selling surface
- Allocation of rights between surface and mineral owners
- Non-mineral pore space as a separate property right

3. School Trust Law as Applied to Conveyances and Deed Reservations

- Requirement of express conveyance

Geologic Carbon Sequestration

New interest in geologic carbon sequestration

- Regulatory pressure on large industrial emitters in some states
- 45Q tax credits for direct injection; lesser credits for EOR

Regulated under federal Safe Drinking Water Act – Underground Injection Control (UIC) program

- Class II UIC – Injection of CO₂ for enhanced oil recovery – generally regulated by states
- Class VI UIC – Complex EPA regulations; may be delegated to states (North Dakota, Wyoming, Louisiana (delegated or in process)).

Major Regulatory Concept – “Area of Review”

- Potential expansion of subsurface CO₂ plume over project life
- Question – beyond the injection site, what level of surface and subsurface property control is necessary?

Split-Estate Lands

Early 20th Century legal trend for minerals to be reserved to the sovereign when surface lands sold.

- Federal Stock-Raising Homestead Act (1916)
- Jones Act (1927) and state law – state trust lands
- Significant acreage of split estate owned by state land trusts

Legal question – what parts of the subsurface are included in the mineral reservation? (Dinos aren't in MT)



Pore Space as an Ownership Class

What is pore space? A cavity or void in a subsurface geologic stratum.

Early Conflict – Gas Storage in Depleted Reservoirs

- Once the native gas is produced, who can use the reservoir?
- “American Rule” – once the minerals are gone, surface owner owns the pore space.

Is pore space truly a property asset?

- Traditional property law doesn't work well at extreme heights and depths
- No harm- no foul – most courts find that subsurface fluid trespass is not actionable unless it causes tangible harm

State Legislative Approaches

- Assign split-estate pore space ownership to surface owner
- Legislative policy of non-trespass (North Dakota)

Trust Law and Reserved Pore Space in Split-Estates

Landmark Federal Case for SRHA Mineral Reservations – *Watt v. Western Nuclear*

- Ordinary sand & gravel within SHRA mineral reservation
- Every property right not expressly conveyed is reserved

Application of *Western Nuclear* to state trust land conveyances

- *City of Kenai v. Cook Inlet Natural Gas Storage*
- *Western Nuclear* plus trust principles – pore space is part of reserved mineral estate, contrary to American rule

Federal split-estate lands – DOI is confused

- Recent guidance suggests American rule, but leaves issue open
- Historic DOI guidance on gas storage suggests opposite

Questions

Does the *Western Nuclear* principle apply to trust lands mineral reservations?

If so, may state legislatures divest the trust corpus of a property right – pore space – by legislative action without compensation

Should state trust managers include a reservation of pore space in surface land conveyances?

What are the legal implications of these issues for other subsurface activities, e.g. salt cavern storage, low-heat geothermal?