

Common Law Aspects of Hydraulic Fracturing

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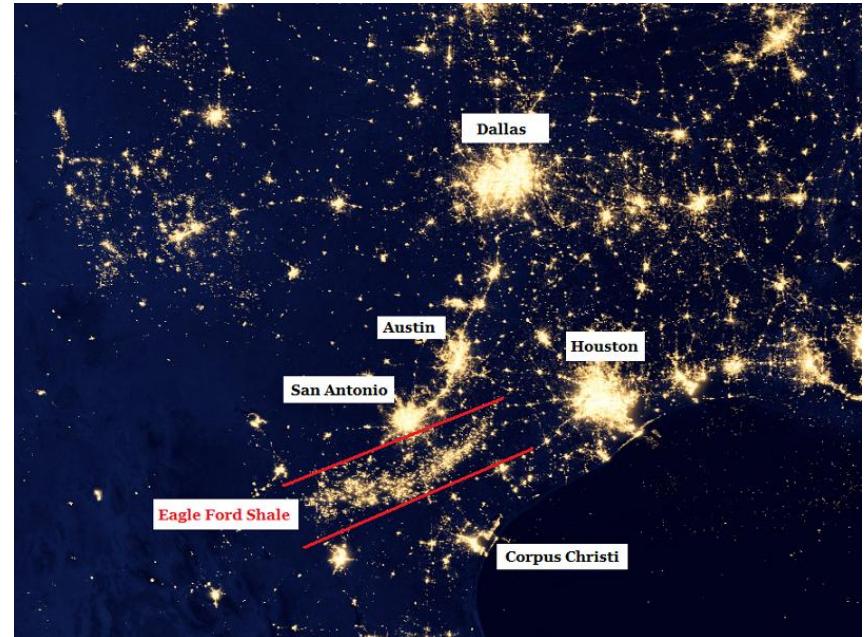
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Development from Orbit



A Matter of Spatial Relationships

- Surface Ownership vs. Mineral Ownership
 - Dominance of the mineral estate
 - Water use
 - Litigation & Administrative challenges
- Neighboring mineral owners
 - Trespass
- Separate mineral owners over same tract
 - Questions of ownership of natural gas



Dominance of the Mineral Estate

- Mineral estate dominant. Curtailed only by:
 - “Reasonableness,” non-negligent, non-excessive
 - Statutes and regulations
- Accommodation Doctrine: If operations...
 - ...substantially interfere with surface owner’s use...
 - ...mineral interest owner must “accommodate” surface owner’s (existing) use...
 - ...if mineral interest owner has reasonable alternatives.
- Surface Damage Acts



Water Use

- In many states, mineral owner has the right to use the estate's water to develop
 - Must not be negligent use
 - Must serve only tract in question or pooled tracts
- Questions:
 - What water law regime does state have?
 - Which agency permits? (Surface vs. groundwater)
 - Can agency curtail water use during drought? How?
 - Can agency not permit water use? Is that a taking?



Surface Owner Administrative Challenges—Can Permits Be Challenged?

- WV: surface owner “appeals” drilling permit¹
- WVDEP and operator sought dismissal of the “appeal” because no right to appeal is found in the WVDEP regulations or in West Virginia law
 - Argue surface owners already have right to file comments regarding drilling permit applications
- CoA reverses, citing a 2002 West Virginia case where such a court challenge was allowed.²
- WV Supreme Court of Appeals reverses again.



¹ *Martin v. Hamblett* No. 11-1157, 2012 W. Va. LEXIS 904 (W. Va. Nov. 21, 2012).

² *State ex. rel. Lovejoy v. Callaghan* 576 S.E.2d 246 (2002).

Legal Action

- Lessor Suits

- Contamination—air, water, and soil
- Nuisance—foul smells, noises, rumble of operations
- Breach of Contract—breach of terms of leases and surface use agreements
- Fraud—violation of the covenant of further development—especially common in Marcellus
- Personal Injury Lawsuits—everything from sickness to fracking turning somebody's hair orange. No appellate opinion has yet found a connection between fracking and personal injury, however.



Neighboring Mineral Estates
Coastal Oil & Gas Corp. v. Garza Energy Trust¹

- Question—when fracing is conducted, does the neighboring tract have a cause of action? (Trespass, conversion, etc.)?
- Texas Supreme Court held in *Garza*:
 - Rule of Capture precluded damages for “trespass on the case” (which requires a showing of damage)
 - Did not go so far as to say fracing was not a trespass, but rather was not an *actionable* trespass.
 - **Concurrence**: trespass is altogether discounted for fracing
 - **Dissent**: Drainage made possible by fracing is not “natural” drainage as envisioned by the law of capture



¹ 268 S.W.3d 1 (Tex. 2008)

Coastal Oil & Gas Corp. v. Garza Energy Trust

The court recognizes limitations...

- TRESPASS QUARE CLAUSUM FREGIT: remedy which lies to recover damages when the defendant has unlawfully and wrongfully trespassed upon the real property of the plaintiff.
 - “...we are talking about fissures of immeasurable length and uncontrollable direction”
 - “...testimony in this case reveals that although the fracture length of an operation can be estimated...the effective length—the length of the fracture through which gas will flow—cannot.”



Coastal Oil & Gas Corp. v. Garza Energy Trust

...that may no longer exist—enter *microseismicity*

- Omnidirectional geophones placed in a monitoring well offset from the treatment well
- Maps micro-seismic events arising in the treatment well in “real time” by picking up vibrations from the fracing
- Velocity models can be constructed from sonic logs, and event location is calculated at point in space that “matches” the observed arrival times of waves from geophones
- Can determine direction, azimuth, height, length and asymmetry of fractures associated with hydraulic stimulation.
- This information can be interposed over property lines to determine when and where fractures cross over a boundary



What this shows lawyers is...

- We can pretty much determine the length, extent and direction of fractures caused by fracing
- We can certainly determine whether the fractures cross a property boundary
- Is that a trespass?
 - A plethora of industry groups, agencies, academics and such think not.
 - My thought: fracing is not a “natural” draining process exactly akin to drainage caused by reservoir pressure...
 - ...but should certainly not be considered trespass until the extent of fracturing can be controlled so as to make avoidance of property boundaries a measurable certainty



Ownership of Natural Gas

- Does a conveyance of “minerals” include oil and natural gas? Not in some states, perhaps!
 - *Dunham & Shortt v. Kirkpatrick*:¹ reserving or conveying “minerals” without references to oil or gas creates rebuttable presumption that grantor did not intend for “minerals” to include oil or gas.
- Who owns natural gas found in coal?
 - Depends on state. For CBM in PA, it’s coal owner.²
 - *Butler v. Powers*:³ does owner of “minerals and Petroleum oils” own natural gas? Trial court: no!



¹ 101 Pa. 36 (1882); ² *U.S. Steel Corp. v. Hoge* 468 A.2d 1380 (Pa. 1983);

³ 29 A.3d 35 (Pa. 2011)

Thank you!

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