

In Defense of Texas Fracking Litigation

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Public perception driven largely by media hype over the hydraulic fracturing (“fracking”) process encourages a rush to judgment over the causative effects. In litigation, the defense must divest the jury of knee-jerk judgments by bringing the science back into the analysis. As the Texas Supreme Court has said:

Our legal system requires that claimants prove their cases by a preponderance of the evidence. In keeping with this sound proposition at the heart of our jurisprudence, the law should not be hasty to impose liability when scientifically reliable evidence is unavailable . . . law lags science; it does not lead it.¹

Recent Texas case law has now unequivocally clarified how rare it should be for a fracking litigant alleging chronic injury exposure claims to even reach a jury. The current absence of scientific evidence deemed reliable under the Texas Supreme Court’s standard requires these cases be summarily dismissed for lack of causation lest the law begin leading science.

I. Brief History of Fracking and Related Litigation

Fracking has taken center-stage as one of today’s environmental “hot-button issues.” Unfortunately, much of the debate is being played out in the forum of public opinion based on assertions of public health and environmental implications without sound scientific evidence of the same. Though fracking has only recently begun trending in the litigation world, it is not a new technology in the oil and gas industry. Fracking technology was first used in conjunction with the oil industry in the 1940s, and began enjoying wide scale use in the Barnett Shale in the late 1980s.² By 2003,

¹ *Merrell Dow Pharmaceuticals, Inc. v. Havner*, 953 S.W.2d 706, 728 (Tex. 1997).

² Carl T. Montgomery & Michael B. Smith, NSI Technologies, HYDRAULIC FRACTURING: *History of an Enduring Technology*. (December 2010) <http://www.spe.org/jpt/print/archives/2010/12/10Hydraulic.pdf>

fracking was utilized in the Marcellus Shale and has continued expanding to other shale plays through the eastern and mid-western regions of the United States.³ Currently, fracking is actively occurring in at least 24 states.⁴ Over 2.5 million fracking wells have been drilled, and that number climbs higher almost daily.⁵ As this industry expands, regulations and litigation are trying to keep pace.

Some shale states have taken an aggressive approach. New York initially passed a fracking moratorium preventing all new drilling, and Ohio has proposed legislation banning all fracking activity until the EPA releases its comprehensive fracking study.⁶ Strict regulatory schemes have also been proposed in Pennsylvania and West Virginia. Fracking issues even qualified for a spot in President Obama's State of the Union Address when he promised that oil and gas companies would be required to disclose the "complete chemical makeup of all materials used" in fracking fluids.⁷ Many states, including Texas, had already passed state legislation requiring this disclosure.⁸ These regulatory pushes have occurred despite the absence of sound scientific direction.

Often the regulatory schemes being implemented are linked to the growing prominence of the fracking industry's litigation status and public pressure. Some states like New Jersey and Pennsylvania have begun shifting the evidentiary burden of proof in fracking litigation.⁹ Many states will allow regulations from other states as litigation evidence of the appropriate standard of care when the case state has not passed similar regulation. Over forty lawsuits are on file with an undeterminable number of suits waiting in the wings, including proposed class actions. Claims asserted range from property claims of trespass, nuisance, premises liability, as well as water use restrictions and its surface implications, to personal injury torts of assault, intentional infliction of emotional distress, negligence, and strict liability; and the claims are

³ U.S. Energy Information Agency, U.S. Department of Energy, Review of Emerging Resources: U.S. Shale Gas and Shale Oil Plays. (July 2011) [ftp://ftp.eia.doe.gov/natgas/usshaleplays.pdf](http://ftp.eia.doe.gov/natgas/usshaleplays.pdf).

⁴ *Id.*

⁵ Montgomery, *supra* note 2.

⁶ Singdig, Kate, National Resources Defense Council, No limited Fracking in NY Before Completing Environmental Review. (Jun. 14, 2012); Ohio H.B. 345, 127th Congress. (2011–2012) (Introduced).

⁷ Gardner, Timothy and Rascoe, Ayesha, U.S. to Require Disclosure of Fracking Fluids on Public Land, Reuters (Feb. 3, 2012).

⁸ Galbraith, Kate, Seeking Disclosure on Fracking, The New York Times (May 30, 2012).

⁹ *Boryszewski ex rel. Boryszewski v. Burke*, 882 A.2d 410, 418–19 (N.J. Super. A.D. 2005)

becoming inventive.¹⁰ Private nuisance claims now assert interference with the use and enjoyment of land as a result of fracking activities occurring even off the property. Trespass claims allege intrusion of unauthorized polluted water into *subsurface* property. Strict liability claims allege fracking is an abnormally dangerous activity. Assault claims are made based on alleged physical contact through releases, spills, and discharges of hazardous gases and polluted water. Even negligence claims have tried to impose new duties on well owners, operators and related contractors.

Some of these liability claims, like strict liability for alleged abnormally dangerous activity, have been legally disallowed in Texas toxic tort cases and others like nuisance or trespass in Texas require specific elements that are difficult to prove. Moreover, the available science, mentioned *infra*, refutes many of the liability claims such as methane migration, release of other naturally occurring materials, or frac fluid contamination, and refutes injury causation from exposure.

Likewise, some of the damages or remedies sought such as cost of future health monitoring for unmanifested injuries, remediation, and equitable injunctions to prevent drilling and fracking also have limited or no application in Texas cases. Texas also prevents recovery of mental anguish damages for an increased risk of developing a disease that is not presently manifest. Texas' refusal to recognize damages for unmanifested future injuries also effectively prevents the formation of a class action in most circumstances as each member would have to show evidence of a specific current injury. Future medical damages must also be medically reasonably likely before they are recoverable.¹¹

Thus, there are strong defenses available for the variety of fracking claims made. This article focuses on the defense of the most common and potentially highest damage claim: alleged chronic injury from toxic exposure caused by fracking activity. Plaintiffs

¹⁰ *Fiorentino v. Cabot Oil & Gas Corp.*, 750 F.Supp.2d 506 (M.D. Pa. 2010); *Tucker v. Southwestern Energy Co.*, Cause No. 11-0044 (E.D. Ark. filed May 17, 2011); *Andre v. EXCO Res., Inc.*, Cause No. 11-001610 (W.D. La. filed April 15, 2011); *Baker v. Anschutz Exploration Corp.*, Cause No. 10-06119 (W.D.N.Y. filed Mar. 9, 2011); *Town of Dish v. Atmos Energy Corp.*, Cause No. 153-255400-11 (Tarrant County filed Feb. 28, 2011); *Parr v. Aruba Petroleum, Inc.* Cause No. CC-11-01650-E, In County Court at Law No. 5, Dallas County, Texas.

¹¹ *Austin v. Kerr-McGee Refining Corp.*, 25 S.W.3d 280, 292 (Tex. App.—Texarkana 2000, no pet).

frequently allege exposure to methane gas, diesel exhaust, frac fluid or other chemicals claimed to be part of or produced by fracking activities. Given the air and water assessment studies available at this time and the absence of applicable epidemiological studies, Texas law supports dismissal of such claims due to lack of causation, even while many other states, including Texas' neighbors, take a less conservative approach.¹²

Though the fracking process is not new, recent years have seen far more growth with over 60% of the wells now in production in the United States utilizing hydraulic fracturing.¹³ The current fracking boom and regulatory response has encouraged a recent group of scientific studies on the environmental and health impacts of fracking. The results have validated the fracking process and give support for a less reactionary regulatory approach. Important on the litigation front, these new studies mark the continued absence of reliable evidence connecting standard fracking activity to the types of chronic injuries claimed.

II. Scientifically Reliable Causation Evidence in Texas

A Texas fracking plaintiff has a number of high hurdles to clear on the causation front alone before they are entitled to submit their claims to a jury. Causation in Texas toxic tort cases requires *both* general and specific causation.¹⁴ A fracking plaintiff must first prove that the specific injury/illness is capable of being caused by the specific chemical in question to satisfy general causation.¹⁵ Then a plaintiff must prove her specific injury was, in fact, caused by that chemical—namely that there was sufficient exposure via an accepted dose/response relationship to satisfy the specific causation requirement.¹⁶

A. General Causation Under *Havner* and *Merck*.

Since direct scientific exposure experiments are not normally available (or ethically desired), general causation in chronic injury cases is necessarily most often

¹² Oklahoma and Louisiana, for instance, have not yet adopted equally precise and stringent criteria for the reliability of evidence used to infer medical causation.

¹³ Montgomery, *supra* note 2.

¹⁴ See *Havner*, 953 S.W.2d at 728; *Merck & Co. v. Garza*, 347 S.W.3d 256, 262–63 (Tex. 2011).

¹⁵ *Id.*

¹⁶ *Id.*

established with epidemiological studies.¹⁷ Chronic injury refers to physical injury, illness, or disease that develops slowly and is persistent and long-lasting, or constantly recurring over time. Chronic injury cases represent the highest potential for significant future damages in fracking and other toxic tort cases. To establish chronic injury, epidemiological studies are used to demonstrate that exposure to the substance can cause the injury. The finder of fact is then allowed to *infer* that because the risk of injury is greater in the general population when exposed to a specific substance, that specific injury is capable of being caused by that specific substance.¹⁸

However, earning this inference in Texas requires overcoming a high threshold. The Texas Supreme Court has mandated this high burden on plaintiffs to be allowed a day in court in the absence of direct medical causation.¹⁹ The preponderance of the evidence standard in Texas fracking cases now expressly requires *at least two* reliable epidemiological studies establishing that the specific chemicals complained of have been shown to cause the specific injuries alleged. “Reliability” in the requisite two studies means each study must demonstrate a greater than two times increased risk of injury from exposure with a confidence interval of 95%.²⁰ A relative risk greater than two means more than doubling of the risk that individuals in the population would suffer the specific injury when exposed compared to the rate of that injury in the general unexposed population. And each study’s results must conform to the excepted convention of 95% probability that more than a doubling of the risk occurs.

This strict proof requirement is only the minimum threshold requirement for indirect, general causation evidence to be accepted.²¹ Even meeting the above criteria, the plaintiff’s position is not secure. Other factors indicative of reliability, similar to the expert reliability test in *Daubert*, must still be considered before allowing an epidemiological study into evidence.²² In the toxic tort scenario, this requires that the

¹⁷ *Havner*, 953 S.W.2d at 715.

¹⁸ *Id.*

¹⁹ *See generally id.*

²⁰ *Merck*, 347 S.W.3d at 262–63.

²¹ *See id.; Havner*, 953, S.W.2d 714–716; Tex. R. Evid. 702 (Vernon 2010).

²² *Id.*; *Daubert* standard includes the following factors in determining reliability: (1) the extent to which the theory has been or can be tested; (2) the extent to which the technique relies upon the subjective

epidemiological studies relied on by a plaintiff's expert not be isolated in their results (i.e. ability to duplicate results), not rely on too limited of a data set, be subject to peer review, and provide analysis of baseline conditions.

This high admissibility burden should be a bar to the chronic injuries claimed in fracking cases considering the absence of reliable studies causally connecting the chemical concentrations typically present in the fracking process to the injuries claimed. While there are clearly epidemiological studies linking potential specific chronic health effects to certain chemical concentrations (i.e. linking benzene exposure in sufficient concentration to increased risk of AML), these studies do not causally link the common chronic injuries we are seeing claimed by fracking plaintiffs to the chemical concentrations present in normal fracking activities. And, an epidemiological study's findings do not apply globally to other exposure circumstances or injury results. Epidemiology studies related to the chemicals and concentrations existing in normal fracking activities have not been conducted. However, the current emissions research related to fracking indicates no exposures at levels sufficient to cause injury.²³ For instance, a recent Barnett Shale study tested over 375 sites and found no significant health threats (chronic or acute) related to natural gas production activities, including fracking, in close proximity to residential and commercial areas.²⁴ The EPA preliminary results of its nationwide study of fracking and the impact on drinking water resources will be published via a progress report in late 2012 and a final draft report in 2014. Without

interpretation of the expert; (3) whether the theory has been subjected to peer review and/or publication; (4) the technique's potential rate of error; (5) whether the underlying theory or technique has been generally accepted as valid by the relevant scientific community; and (6) the non-judicial uses which have been made of the theory or technique. *E.I. du Pont de Nemours & Co. v. Robinson*, 923 S.W.2d 549, 557 (Tex. 1995).

²³ See, for example, City of Fort Worth Natural Gas Air Quality Study: Final Report at xii–xiv (July 13, 2011); Gregory S. McRae and Carolyn Ruppel, “The Future of Natural Gas: An Interdisciplinary MIT Study”; Stephen G. Osborn, Avner Vengosh, et. al., “Methane Contamination of Drinking Water Accompanying Gas-Well Drilling & Hydraulic Fracturing, Center on Global Change,” Nicholas School of the Environment, Division of Earth and Ocean Sciences, and Biology Department, Duke University (April 14, 2011) (finding no health hazards associated with elevated levels of dissolved methane in potable water sources and no evidence that fluid constituents migrated into groundwater); Molofsky, Lisa, et al, “Methane in Pennsylvania Water Wells Unrelated to Marcellus Shale Fracturing,” OIL & GAS J. (Dec. 2011); US Geological Survey results from well water studies in Arkansas and other states, www.usgs.gov; New York Dept. of Environmental Conservation SGEIS on the Oil, Gas & Solution Mining Regulatory Program (Sept. 2009 and as revised Sept. 2011)

²⁴ City of Fort Worth Natural Gas Air Quality Study: Final Report at xii–xiv (July 13, 2011).

at least two reliable epidemiological studies causally linking the plaintiff's specific claimed injury to the specific exposure, there can be no general causation inference.

B. The Specifics of Specific Causation

Even if a plaintiff could produce the required reliable evidence of general causation, she must still prove her injuries were actually caused by exposure to the allegedly toxic substance related to the fracking process. In order to establish specific causation, a plaintiff must “show that he or she is *similar* to those in the [epidemiological] studies.”²⁵ The Texas Supreme Court's similarity requirements have been distilled into the following five categories: 1) the injured person was exposed to the same substance, 2) the exposure or dose levels were comparable to or greater than those in the studies, 3) the exposure occurred before the onset of injury, 4) the timing of the onset of injury was consistent with that experienced by those in the study, and 5) if there are other plausible causes of the injury, the plaintiff must offer evidence excluding those causes with reasonable certainty.²⁶

To meet the first two similarity requirements, a plaintiff must *quantify* his or her exposure or dose levels.²⁷ It is “fundamental” for the plaintiff to prove not only the levels of exposure that are dangers to humans generally, but to also prove the level of *actual exposure* received from a defendant's allegedly toxic substance.²⁸ In quantifying exposure, actual scientific data is required to support the frequency and duration of the plaintiff's exposure to the substance.²⁹ Evidence of frequency and duration will be deemed speculative and inadmissible without a *quantitative exposure assessment* with *scientific data* supporting the frequency and duration of exposure. Estimates and educated guesswork are insufficient.³⁰

III. CONCLUSION

²⁵ *Havner*, 953 S.W.2d at 702.

²⁶ *Id.*; *Daniels*, 99 S.W.3d at 728; *see also Exxon Corp. v. Makofski*, 116 S.W.3d 176, 182–83 (Tex. App.—Houston [1st Dist.] 2003, pet. denied).

²⁷ *Austin*, 25 S.W.3d at 292.

²⁸ *Id.*

²⁹ *Id.*

³⁰ *Id.* at 293.

Unfounded public perception is currently driving regulatory and litigation reaction to the fracking industry. To date, Texas has proven less reactionary than other states on the regulatory front. This more cautious approach should carry into the litigation arena with the specific evidentiary burden Texas courts have mandated. With the latest Texas Supreme Court clarifications regarding the minimum threshold for establishing chronic injury causation and the absence of scientific literature linking typical fracking chemicals and processes with specific chronic injury, defendants should be well armed to seek summary judgment on such claims.

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Wendy May is an experienced trial attorney with a reputation for persuasive arguments in the courtroom and a track record of impressive results for her clients. Wendy applies her talent for problem-solving to the complex litigation cases she handles for clients. Her defense strategies focus on presenting a clear and compelling case to the jury. Her passionate representation of clients makes her a formidable adversary at trial.

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